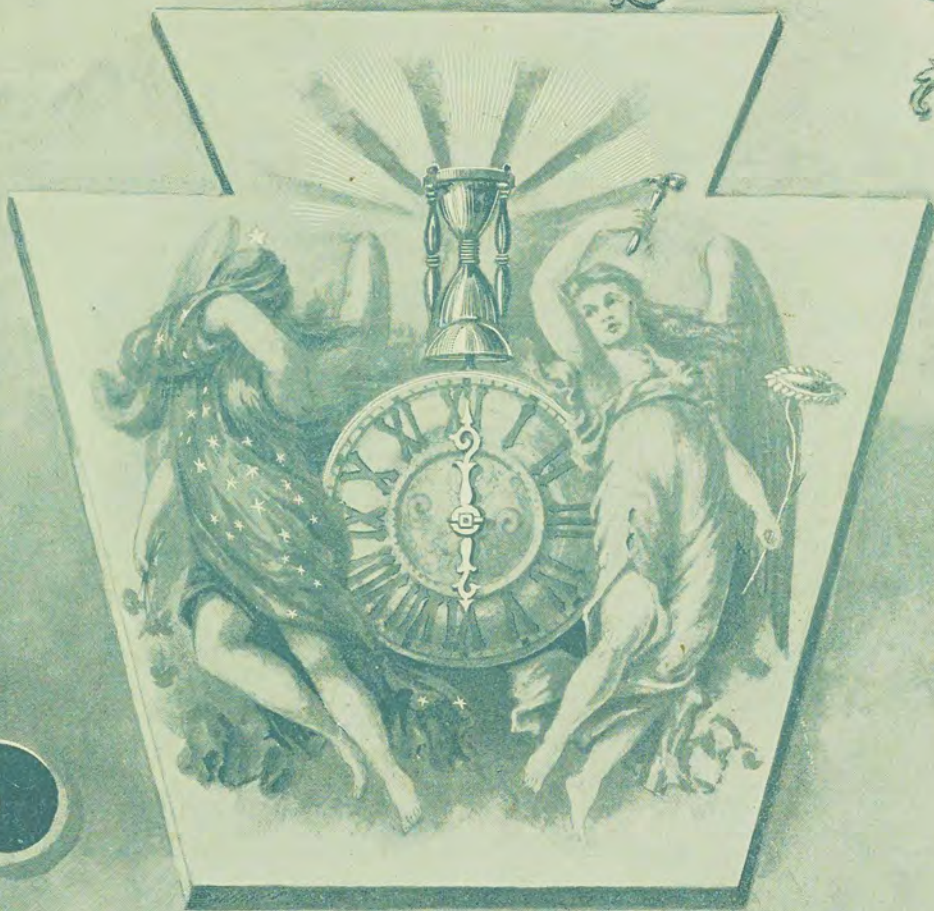
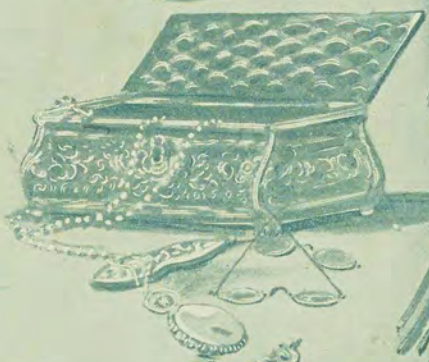


The Keystone



THE ORGAN OF
THE JEWELRY
& OPTICAL
TRADES.



Copyright, 1898 by E. Thorpe Publisher 19th & Brown Sts. Phila.

Volume 19

Number 9

September, 1898



Announcement to the Trade

General Offices, Chicago, September 1, 1898.

We beg to announce the issue of our **7 Jeweled, 12 Size Movements.**

NAMELESS—ENGRAVED ELGIN NATL. WATCH CO.

**Three-Quarter Plate, Hunting and Open-Face,
Pendant Setting.**

No. 196, Hunting. No. 197, Open-Face. Nickel.



7 jewels, compensation balance, Breguet hairspring, exposed pallets, patent safety barrel with spring box rigidly mounted on bridge, display winding work, patent recoiling click, patent self-locking setting device, glass enamel dial, dust ring, damaskeened plates.

MANUFACTURED AND GUARANTEED BY THE

ELGIN NATIONAL WATCH CO.

GENERAL OFFICES,
76 MONROE STREET, CHICAGO, ILL.

NEW YORK OFFICE,
11 JOHN STREET.

FACTORIES, ELGIN, ILLINOIS, U. S. A.

SEE JOBBERS' LIST FOR PRICES, OR WRITE THE COMPANY.



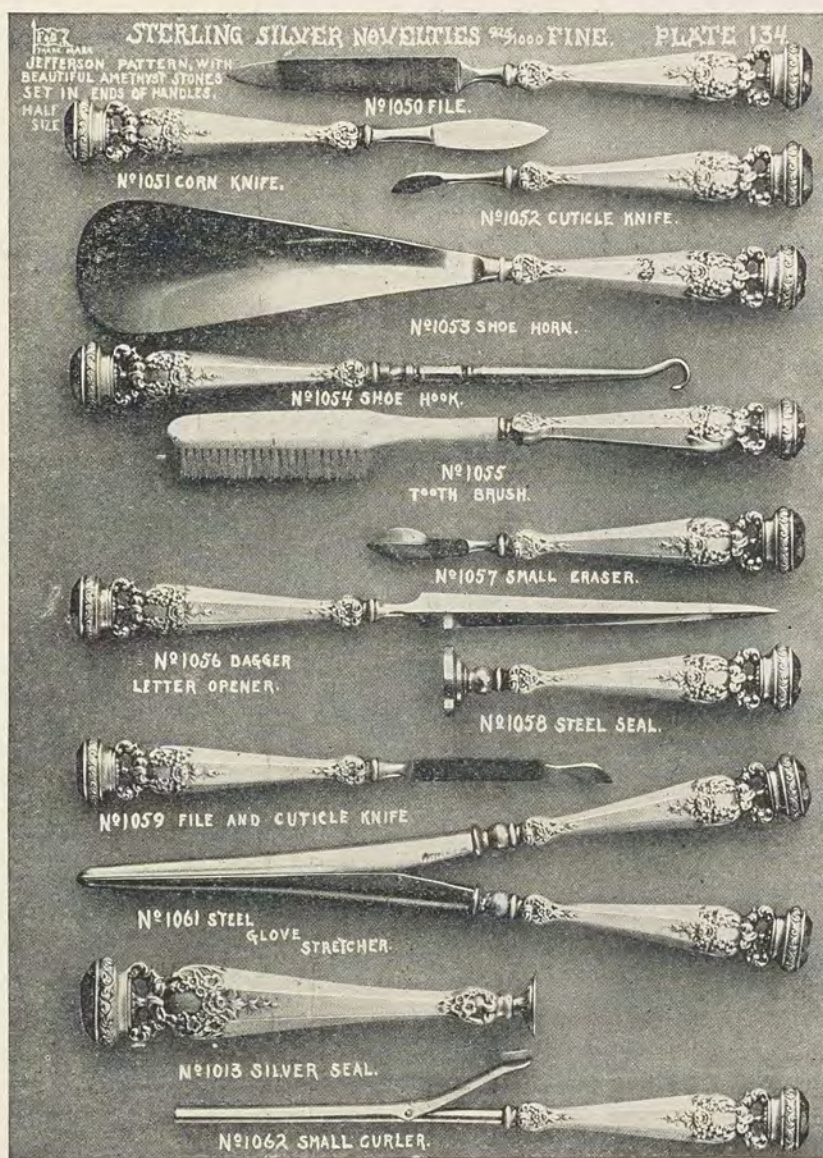
Victory and Complete Success



has crowned the American Arms after a short but satisfactory campaign.

We have had a campaign covering a period of more than **Twenty-five Years**, and the **Success** has been marked and highly gratifying. Our **Victoria Pattern**, introduced this fall, has brought many words of praise and liberal orders. We illustrate below a sample page (on a reduced scale) from our new catalogue, illustrating this beautiful pattern. Ask us for a catalogue and we will send it to you; you will find illustrated everything for the Toilet and Manicure use.

A FULL JEWELLED LINE



DESIGN PATENTED

We will surprise you by the low Prices we will quote you on the Goods illustrated on this page.

- Mirrors
- Brushes
- Combs
- Cut Glass
- Manicure Sets
- Toilet Sets
- Whisk Brooms

Everything that is useful and pretty.

Sterling Silver ⁹²⁵/₁₀₀₀ fine.

We are also continuing with our WASHINGTON and JEFFERSON patterns, which were so successful last season.

Remember we are leaders in the lines of gold filled and gold plated Bracelets, Locketts, Vest Chains, Chain Mountings, Gold Front Pins, Earrings and Sterling Bracelets.

THEODORE W. FOSTER & BRO. CO.

Jewelers and Silversmiths

SUCCESSORS TO
FOSTER & BAILEY

100 RICHMOND ST., PROVIDENCE, R. I.



TIME TO BUY OPTICAL GOODS



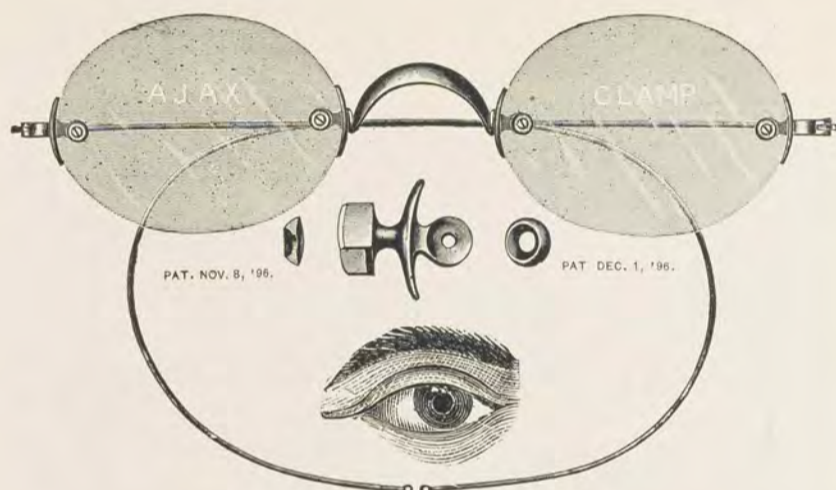
BUSINESS BOOMING!

ORDER EARLY

Headquarters for these goods.

AJAX CLAMP FRAMELESS
MOUNTINGS

EYE-GLASSES
FOR



AND
SPECTACLES

This Mounting is the newest and one of the most practical inventions in the optical trade in recent years. The only **absolutely interchangeable** Spectacles and Eye-Glasses made. Does away with more than **one-half** the breakage incident to the old style of clips.

SPECIAL ADVANTAGE :

A small assortment of lenses, and a few of the different styles of mountings, will give you a complete stock of rimless goods, as lenses of any thickness will fit the same strap. These mountings are made of any material.

HAVE YOU SEEN A SAMPLE ?

Headquarters, **L. H. KELLER & CO.**

Special Attention to R_y Work.

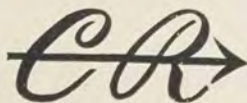
64 Nassau St., NEW YORK.

1853

Our 45^b Anniversary

1898

As Sole Agents for
The Celebrated



Mainsprings

Concentration

The rapid increase of our trade in *Watches* and *Chains* and the assured progress of the general prosperity (with incidental further activity in the Watch and Chain lines), induces us to concentrate all our resources and attention upon

Watches and Chains.

We shall therefore close out our stock of *Spectacles* and *Rings* at once, fixing such prices on these goods as will insure their immediate clearance. We call special attention to our rare inducements on *Rings* in this closing-out sale, as the discounts we offer will bring the goods to the retail jeweler at less than they cost the jobber.

The concentration of all our capital and attention on *Watches* and *Chains* will insure to our customers still greater benefits from dealing with us than heretofore, and we cordially invite trial orders from strangers who are attracted by exclusive lines.

The Non-Retailing Company,

Jobbers in

Watches and Chains,

Lancaster, Pa.

The J. D. Bergen Co. 

MANUFACTURERS OF

AMERICAN CUT GLASS

OFFICE AND SALESROOM,

38 Murray St., NEW YORK

"Goods well bought are half sold;" if you buy your glass of us the sale of it is half made, the rest is easy. Send for **Illustrated Catalogue, August, '98**, note prices, and be convinced. Fifty illustrations of "**Premier**" in new catalogue.



"Premier"
Finger Bowl



"Premier"
Tumbler



"Premier"
H'd Nappy



"Premier"
Cologne



"Premier"
Claret Jug



"Premier"
Sugar



"Premier"
Cream



"Premier"
Ice Tub

CAN'T BE BEAT



A HEART FLUSH

The value of a flush depends on the amount at stake. There is satisfaction in holding the best, and a double satisfaction when pleasure is combined with profit. There are "FLUSHES" and "FLUSHES," but any man who understands the game knows how to discriminate. He appreciates the value of a sure winner.

YOU CAN'T LOSE

If you send your old gold, silver, etc., to us you take absolutely no chance. We remit immediately on receipt of consignment. If our offer should not prove satisfactory, we return consignment intact, and pay all charges. Make us a trial shipment, and be convinced. We make returns for sweeps within three days of receipt. Prompt and accurate assays of ore.

GOLDSMITH BROS.

Smelters, Refiners and Assayers,

CHICAGO, ILL.

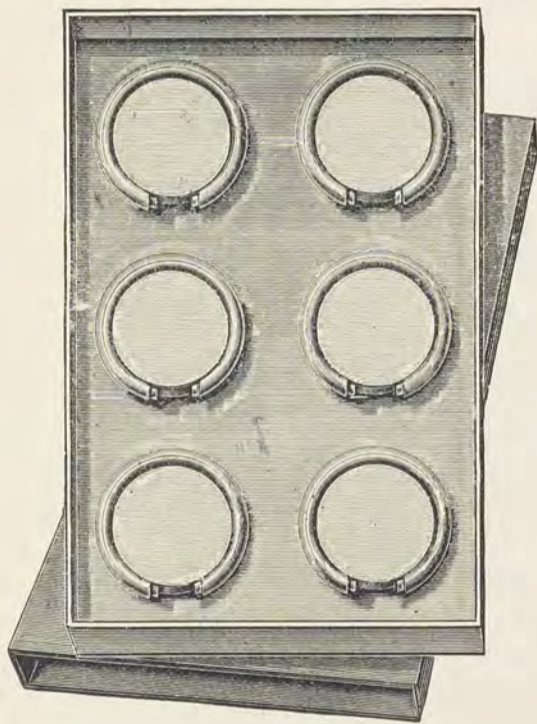
WORKS—Cor. 59th and Throop Sts.
OFFICE—63 and 65 Washington St.



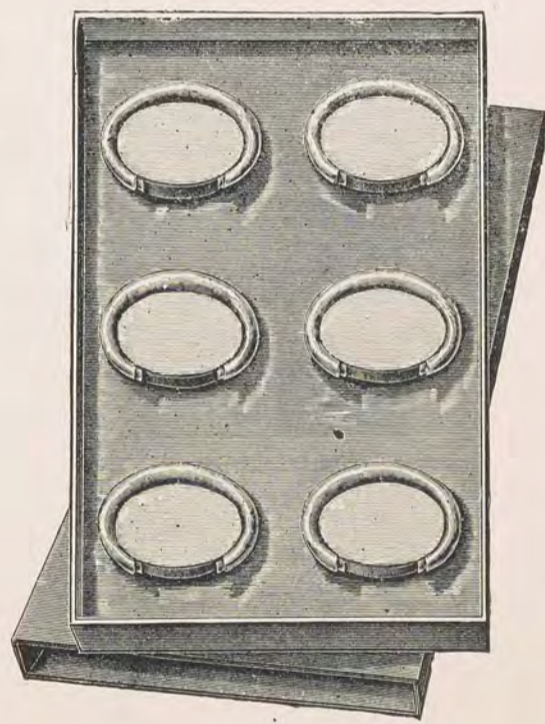
**Crowns, Pendants, Bows, Solders, Springs, Stems,
Pendant-Set Bars and Sleeves, Findings, Etc.**

NOTICE! We beg to call your attention to our new method of Carding Bows, which is an improvement on all styles of carding heretofore in use. Our new method consists of a neat and attractive Box with shouldered caps on which the Bows are mounted, so that one or more can be removed without disturbing the others. The Box has a tight-fitting slide cover to prevent the Bows from getting discolored. Bows can be had in all sizes, both in American and Antique, either in Gold, Seamless Gold Filled, Silver, Silverine and Nickel.

AMERICAN BOWS.



ANTIQUÉ BOWS.



The Ledos
Improved Method
of Carding
Watch Bows

PATENT APPLIED FOR.

WE manufacture and carry a complete line of **WATCH CASE MATERIALS** for all makes of Cases in Gold, Seamless Gold Filled, Silver, Silverine and Nickel.

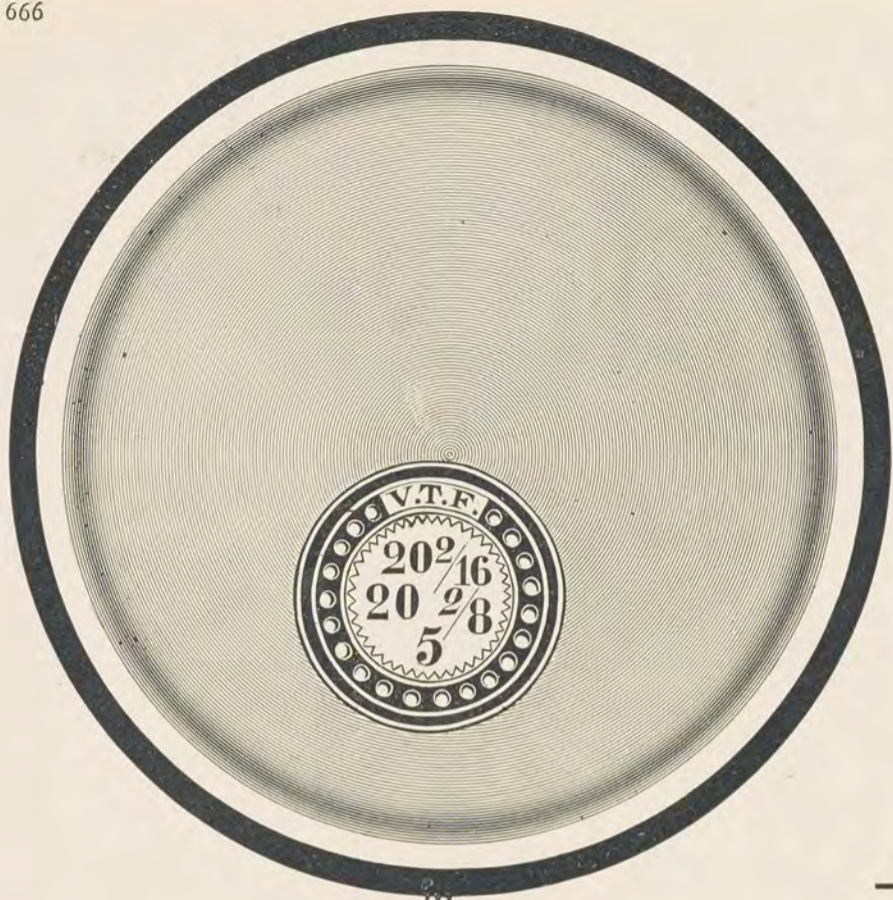
ALL OUR MATERIAL SOLD BY THE LEADING JOBBERS.

Combination Set of Improved Sleeve Drivers.

(Containing a set of half dozen in box with handles complete.)



These drivers are flanged as shown in cut, and when driven in handle it is impossible for them to turn. They are made of the best tool steel, hardened and drawn to a temper that will hold its edge and not break, are also very accurately made, and one set will be sufficient for all makes of new and old model pendant set sleeves.



V.T.F.

V.T.F.

Watch Glasses

are used by more watchmakers than all others.

are used by more casemakers than all others.

are made in larger quantities than all others.

cost no more and are better than all others.

for sale by all leading Jobbers.

means everything that is first quality in a watch glass. Without V. T. F. on each and every label you are in danger of receiving inferior quality. Can you afford to?

The success of the V. T. F. has induced others to copy the label, but not the quality. There is only one **Beaded Border Label with V.T.F.**, and that stands alone as the *perfect* watch glass.

Manufacturers of Beveled-Edged Clock Glasses, all manner of Round Beveled-Edged Glasses, as well as Lenses for Bicycle and other kinds of Lamps. For information, address J. W. Riglander, 35 Maiden Lane, New York.

1898

SKIRMISH LINE OF
**THE NEW ENGLAND
 WATCH CO.**

The jewelry trade for the coming season will be visited by our well-known corps of workers and old friends of the trade.

For New England States, Mr. Wm. C. Wales, Mr. W. S. Tiffany; for New York State, Mr. Benjamin Westervelt; for New York City, Mr. Jules H. Lacroix; for Pennsylvania and New Jersey, Mr. John S. Roberts; for Ohio, Michigan and Kentucky, Mr. Edward B. Downs; Mr. Harry C. Birch, with his assistants, will attend to the Southern seaboard States as usual; the Messrs. Azbell, the middle West; Mr. Charles Lester, Chicago, with his co-workers, will attend to the wants of the Northwest; Mr. Wm. Weidlich, with his force from St. Louis, will look after the Southwest; Messrs. Heacock and Freer will attend to the Pacific Coast. They are all in motion for the fall campaign.

If you have not received our new catalogue, send for it.

**THE NEW ENGLAND
 WATCH CO.**

Waterbury, Conn.

Boston,
Jewelers' Building.

St. Louis,
Holland Building.

Chicago,
Silversmiths' Building.

San Francisco,
Spreckels Building.

New York,
Lorsch Building.

Distributing Agents

HAYDEN W. WHEELER & CO., New York City.
 N. H. WHITE & CO., New York City.
 D. C. PERCIVAL & CO., Boston, Mass.
 L. P. WHITE, Philadelphia, Pa.
 OSKAMP, NOLTING & CO., Cincinnati, Ohio.

GEO. B. BARRETT & CO., Pittsburg, Pa.
 LEONARD KROWER, New Orleans, La.
 OTTO YOUNG & CO., Chicago, Ill.
 BENJ. ALLEN & CO., Chicago, Ill.
 B. F. NORRIS, ALISTER & CO., Chicago, Ill.



Use the 

"Imperial" Mainsprings

They are the best, the most reliable, are COILED AND TAGGED, put up in the most convenient manner, and are "Guaranteed for One Year."

Beware of Imitation !!!

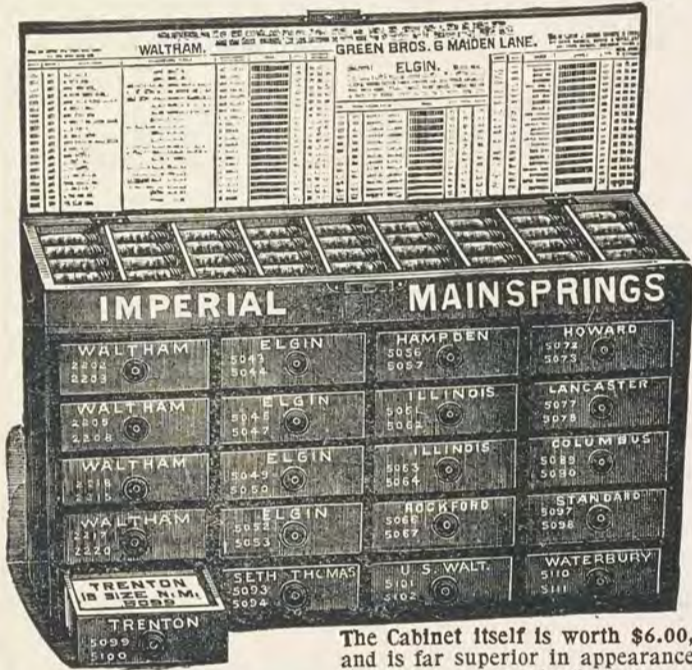


Price, **\$12.00** per Gross.
1.00 per Doz.

To such of our patrons who have not yet used them, we will state that the inner surface is **crocus finished**, the edges carefully rounded, in this latter respect very much superior to other springs, which usually have less carefully finished or sharp cutting edges. The two inner coils are made a size narrower and weaker than outer ones, rendering them less liable to rub on the cover of the barrel, and allowing them to take a shorter turn on the arbor. We furnish them either "assorted" or in "separate" strengths. A small brass tag is attached to each spring as shown in cut, upon which is plainly stamped the exact name, number, width and strength, thus saving much time and trouble when selecting a spring or when about to replenish stock. The strengths and widths correspond to the genuine Dennison's mainspring gauge. The word "Imperial" is placed on the end of each spring. These springs we can safely recommend as superior to any other make, and the constantly increasing sale and the many testimonials we have received are the best testimony we can have of the satisfaction they afford to the many who are using them.

Cabinet and a full set of Screw-Top Bottles sent GRATIS.

"It is worth securing."

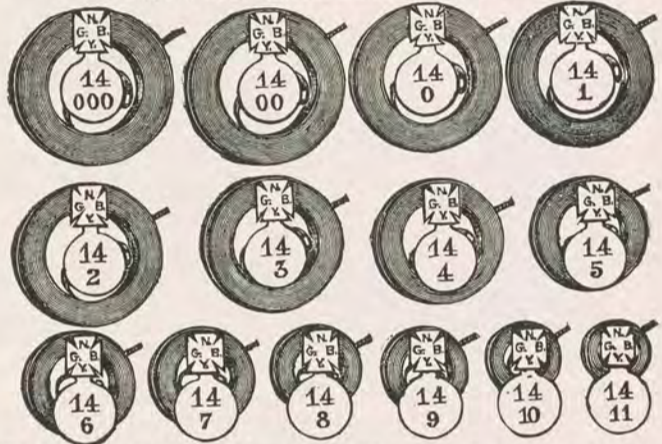


The Cabinet itself is worth \$6.00, and is far superior in appearance than is represented by the cut.

SPECIAL NOTICE.

With a first order of one gross of the "Imperial" American or Swiss Mainsprings, we send gratis our Improved handsome polished Solid Black Walnut, Oak or Cherry Mainspring Cabinet, as shown in cut. It is well made, cabinet finished and dovetailed throughout, and the cover closes with a patent snap lock, nickel-plated. It is the only cabinet made that will properly systematize and keep in thorough order the many American and Swiss mainsprings necessary at the present time, and will be greatly appreciated by all watchmakers. Besides being very useful, it makes a very handsome appearance. It has twenty drawers, with fancy knobs, brass trimmed, and the top is arranged in grooves for thirty-six screw-top glass bottles for watch and jobbing materials. It will hold 6 GROSS Imperial American or Swiss Springs. We also include two sets of perforated gummed labels, with name, number and size of the springs, so the drawers can be numbered as desired. These numbers correspond to a directory of all American springs which is printed on the inside cover, showing the correct style, width and strength by Dennison's Standard Mainspring Gauge, and the proper numbers and names for ordering.

Fac-simile of an assortment of "IMPERIAL" Swiss Mainsprings, coiled and tagged, showing width 14 and strengths 000 to 11.



None Genuine unless marked "Imperial" and bearing our Registered Trade-Mark, as shown in cut.

Fac-Simile of No. 2203 Imperial American Springs, Coiled and Tagged.



None Genuine unless marked "Imperial" and bearing our Registered Trade-Mark.

GREEN BROS. 6 Maiden Lane, NEW YORK.

Importers, Manufacturers and Jobbers of { Fine Grade Watch Materials, Tools and Jewelers' General Supplies.

RINGS

have been added to our already complete stock of WATCHES, CLOCKS, SILVERWARE, MATERIAL and FINDINGS.



WHOLESALE JEWELERS

157 Jefferson Avenue

Detroit, Michigan



L. Lelong & Brother



Gold and Silver Refiners, Assayers and

S WEEP SMELTERS

BULLION SOLICITED SMELTING FOR THE TRADE

Prompt attention given to Old Gold and Silver forwarded to us by mail or express.

Southwest Corner Halsey and Marshall Streets
Newark, N. J.

 SWEEPINGS OUR SPECIALTY 



We are Prescription Opticians

We have facilities for every sort of Prescription work. We guarantee all Prescription frames in extra finished goods for two years. Our prices on Prescription work are low. We fill Prescription orders same day received. If you want to have your Prescription orders filled exactly right send them to us. Our facilities for doing first-class work are unexcelled. We hold our Prescription customers and thus increase the number daily. This explains why we do such a large Prescription business.

JOHNSTON OPTICAL CO., Prescription Opticians, DETROIT, MICH.

When writing to advertisers, kindly mention The Keystone.

Why Not Sell GRAPHOPHONES?



The Graphophone is the perfected talking machine. Other so-called talking machines reproduce only the records of cut and dried subjects made in laboratories.

The Graphophone not only reproduces the standard musical records made for amusement purposes, but also records music or any sound for instant reproduction.

On the Graphophone one can easily make records of the voice, or of anything audible, and reproduce the records at once and as often as desired.

This power of recording as well as reproducing sound, makes the Graphophone the most entertaining and the most fascinating of inventions.

The interesting point about Graphophones for jewelers is that they are sold rapidly and that they make a most appropriate and profitable side line for an enterprising jeweler. Their exhibition in a store attracts people, and at the same time requires comparatively little space. Many jewelers have taken up the Graphophone with great profit.

Graphophones sell at prices ranging from **\$10** to **\$50**. Liberal discounts offered to dealers can be learned by applying or writing to any of our offices.

Our establishment is manufacturing headquarters of the world for talking machines and talking machine supplies. Manufactured under the patents of Bell, Tainter, Edison and Macdonald.

Write for Catalogue 21.

Columbia Phonograph Company, Dept. 21.

NEW YORK, 143 and 145 Broadway.
Retail Branch, 1155, 1157, 1159 Broadway.
PHILADELPHIA, 1032 Chestnut St.
WASHINGTON, 919 Pennsylvania Ave.
BUFFALO, 313 Main St.

PARIS, 34 Boulevard des Italiens.
CHICAGO, 211 State St.
ST. LOUIS, 720-722 Olive St.
BALTIMORE, 110 E. Baltimore St.
SAN FRANCISCO, 723 Market St.

A CHANCE OF A LIFETIME!

18 Size Sun Dial AND Atlas Movements

OPEN-FACE AND HUNTING.

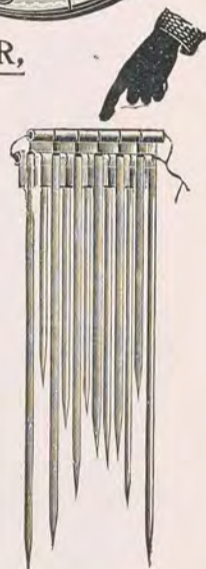
YOU KNOW WHO MAKES THEM.

\$1.47 EACH.

NET CASH.



WRITE FOR SPECIAL NET CASH PRICES ON THESE MOVEMENTS CASED IN SILVEROID, SILVER, GOLD FILLED AND GOLD CASES. It Will Pay You.



PLATED AND GERMAN SILVER HAT PIN STEMS.

FINELY FINISHED AND BURNISHED. REGULAR PRICE, 50 CTS. DOZ. **15 Cts. Doz.**
\$1.75 per Gross.

PLATED SCARF PIN STEMS. REGULAR PRICE, 35 CTS. DOZ., **15 Cts. Doz.**
ASSORTED SIZES, **\$1.50 per Gross.**

PLATED PIN STEMS. REGULAR PRICE, 75 CTS. PER GROSS, **35 Cts. per Gross.**
ASSORTED SIZES.

M. SICKLES & SONS, 618 Chestnut St., PHILADELPHIA, PA.

WE HANDLE EVERYTHING IN THE LINE.



HERMAN G. BRIGGS

"The best and most gentlemanly auctioneer in America."
—Chicago Times-Herald.

Mighty Men O' The Hammer

America's Record Breakers.

Upon application we will mail a beautiful new booklet just out, containing information in regard to auction sales and several hundred testimonials and references, of the most successful sales ever made, extending from the Lakes to the Gulf and from Ocean to Ocean, that cannot be duplicated by any other salesmen in America.



LOUIS H. DODD

"Without a doubt the most rapid salesman in the country."
—Daily Picayune, New Orleans.

Enthusiastic Commendation

FROM THE TIFFANY OF THE SOUTH.

New Orleans, La., May 14th, 1898.

Having just concluded an auction sale which has been phenomenally successful, I feel it my duty to state the result for the mutual benefit of the gentlemen who made it and the trade. To me it is a task of pleasure to write this letter of recommendation for Messrs. BRIGGS & DODD, who so ably did the work. When first contemplating making the sale I looked carefully over the list of the few great public salesmen, listening to what their friends in Chicago and New York had to say in their behalf, visiting those cities for that purpose. Much depended on the result to me, my stock inventorying over \$300,000. After mature deliberation, I concluded to employ the above gentlemen, and now have substantial reasons for being pleased with my choice. Friends endeavored to persuade me against having a sale; a local auctioneer of good reputation in another line said he would wager any amount that it would be a failure, giving as his reasons that the city had not recovered from the yellow fever epidemic, general depressed condition of business, the great war scare, etc. Under these discouraging conditions the sale opened. The result was the greatest auction of an exclusive jewelry stock ever held in America; it lasted nine weeks; prices obtained beyond my most sanguine expectations. The marvelous skill and ability displayed on the part of Messrs. BRIGGS & DODD, in handling the sale, I have not the use of language to paint a word picture which would in a measure show the resources of these matchless salesmen; each in his own inimitable way pursuing different original methods with the same result. Never in the history of auctioneering jewelry has there been so much talent offered the trade. Finding myself under such great obligations to these gentlemen, will with pleasure answer any letter of inquiry.

Very respectfully,

Notice.—We have no connection with other auctioneers, and any one using our names to procure sales will be prosecuted.

We are now arranging dates for the season '98-'99. Correspondence Solicited.

BRIGGS AND DODD,

334 Dearborn St., Room 1230, Chicago, Ill.

SOME SPECIAL BARGAINS

FROM OUR FALL BULLETIN (JUST OUT).

32 pages of the newest and best-selling Clocks, Silverware, Novelties, Plush Boxes, Silk Guards, Materials, Etc., at Special Prices.



No. 1310. Cut one-third size.

Quadruple Plate, Satin Engraved Coffee Set, Cream Pitcher Gold Lined, four pieces complete, . . . \$5.88 net.

We show seven pages of good things in Silverware in our Fall Bulletin.

If you haven't
received our
**FALL
BULLETIN,**
write for it.
It is a
money-saver.



THE HUSTLERS. E. N. Welch make.

Handsome Embossed Oak Cases, 23½ inches high, Eight-day, Half-hour Strike Movements. Six different patterns. Price, \$1.55 net. Alarms, 23 cents extra.

We show six other lines proportionately cheap in our Fall Bulletin.



CORINNE. Height, 12 inches.

Blue and Gold Porcelain Case, Floral Decoration, Eight-day, Half-hour Strike, Cathedral Gong Movement, French Sash, Bevel Glass, Porcelain Dial, \$5.17 net.

We show nineteen new designs similar to above in our Fall Bulletin.



No. 568. Height, 21 inches.

Rich Gold Gilt Trimmings, Decorated Bowl, 10-inch Globe to match, complete, \$3.23 net.

See our Fall Bulletin for complete line.



No. 100. Full size.

Finest American Cut Tumblers like above. Per dozen, \$2.82 net.

Water Bottles to match, \$1.41 net.

We handle a complete line of Cut Glass. Write for Special Price-List.

L. BAUMAN JEWELRY CO.

Manufacturing Jewelers, Jobbers and Importers of
Diamonds, Watches, Jewelry, Etc.

617 Washington Avenue,
SAINT LOUIS, MO.

Meyer Jewelry Company,
Special Manufacturers for the Jewelry Trade.

Dealers in Diamonds and Precious Stones.
Watchmakers and Engravers.

Repairing a Specialty.
Telephone 1765.

1016-1018 Main Street.

Kansas City, Mo., Aug. 17, 1898.

The Keystone,
 Philadelphia, Pa.

Gentlemen:-

DON'T TAKE OUT OUR "AD", as we want all the jewelers and watchmakers in this Western country (which of course can best be reached through the medium of your journal) to know that we have the best equipped Manufacturing and Repairing Jewelry Establishment West of the Mississippi; that, possessing the advantages of all the latest improved machinery, etc., and employing only the highest class of skilled workmen, we are able to turn out work prompter at lower charges, and withal better finished, than the majority of shops. We further want them to know that we carry one of the most complete stocks of Diamonds and other Precious Stones, both loose and mounted; also that we have added a complete line of Watchmakers' Material and Jewelers' Sundries. We not only want them to know all this, but want them to benefit by this knowledge.

WE WANT THEIR PATRONAGE.

Yours truly,

Meyer Jewelry Co.

We are head $\frac{1}{4}$ $\frac{1}{4}$ for **GOLD SHELL RINGS,**
SPECIAL GOODS, BURGLAR-PROOF
PIN TRAYS, GLASS CASES,

and all other paraphernalia and modern improvements pertaining to Rings.



Gold Shell.



No. 2103.



No. 2059.



No. 2102.

Over 2,000 Patterns, and
"NOTHING BUT RINGS."
 New Patterns Every Month.

Send for our
"HOT CATALOGUE,"
 Containing Cold Facts and Pretty Pictures.

CLARK & COOMBS,
 21 EDDY ST., PROVIDENCE, R. I.

CONSULT **THE BECK ENGRAVING COMPANY**

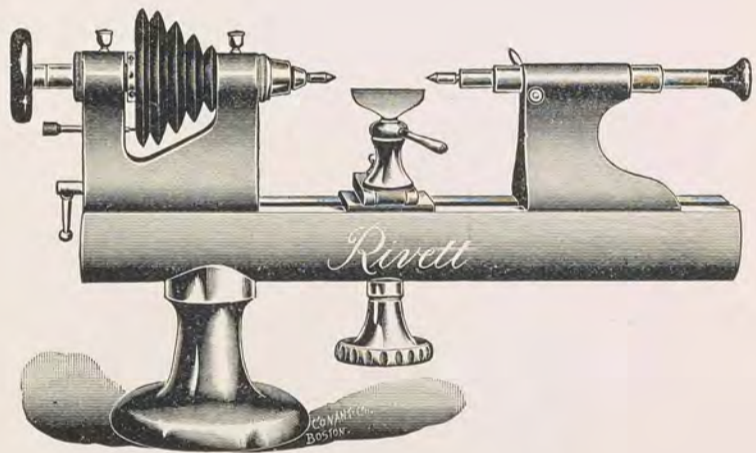
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DESIGNS
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 AND
ENGRAVINGS
 OF EVERY DESCRIPTION

ARTISTIC EXECUTION
 REASONABLE PRICES



VACATION TIME IS OVER.

Now is the time to place your order for the

RIVETT LATHE

If any dealer tells you he does not handle it, find out **WHY.**

Send direct for Catalogue.

Study your own interests and investigate.

More money invested in manufacturing the RIVETT LATHE than any other watchmaker's lathe in the world.

Our New Catalogue tells all about our 1898 Lathe.


FANEUIL WATCH TOOL CO.

Brighton, Boston, Mass., U. S. A.

Extensive New Fall Line of KEYSTONE SOLID GOLD Cases

Our Fall line of KEYSTONE SOLID GOLD Cases is remarkable for variety of style, diversity of ornamentation and excellence of workmanship.

These cases are 14 K. gold throughout. They are hand-made and hand-engraved, and each is constructed with the same scrupulous care as if made to order.

Every KEYSTONE SOLID GOLD Case has this trade-mark  stamped in the back, and is thus easily identified.

You can now procure from any jobber the following weights and styles for regular stock :

18 Size Hunting

Juergensen engine-turned, 45 to 75 dwts.
Bascine and } Plain polish, fancy or full
Flat Bascine } engraved, 45 to 60 dwts.

18 Size Open-Face

Juergensen engine-turned, } Sprung bezel, 40 to 60 dwts.
Bascine } Plain polish, fancy
or full engraved, } Not sprung, 30 to 50 dwts.

16 Size Hunting (Elgin or Waltham)

Juergensen engine-turned, 37 to 55 dwts.
Bascine and } Plain polish, fancy or full
Flat Bascine } engraved, 37 to 55 dwts.

16 Size Open-Face (Elgin or Waltham)

Juergensen engine-turned, not sprung.
Bascine } Plain polish;
faceted center and edge, plain polish;
fancy or full engraved.

Backs are heavy, for monogram work or other engraving.

These 16 size open-face cases are our widely known "Pearl" line, and are all made without springs.

16 Size Open-Face (Elgin or Waltham)

Juergensen engine-turned, } Sprung bezel, 35 to 50 dwts.
Bascine } Plain polish, fancy
or full engraved, } Not sprung, 26 to 40 dwts.

NOTE—All of the above 16 size cases, in medium and heavy weights, are also made with five-knuckle joints in hunting and open-face; also with glass cap under gold cap, and in hunting with gold dust-band covering lift spring. Juergensen lips when specially ordered. All are fitted with the antique bow and pendant unless otherwise ordered.

A Large Variety of Novel Shapes in } Elgin or Waltham 16 Size Hunting

Round vermicelli engraved edges on back; straight knurled and plain centers; five-knuckle joints; gold dust-band over lift spring; plain polished, engine-turned or fancy engraved; antique pendant.

These cases are specially adapted to fine trade.

12 Size Hunting and Open-Face } Elgin or Waltham

Juergensen engine-turned, } In three weights—
Bascine } Plain polished, fancy or } "regular," "heavy"
full engraved, } and "extra heavy."

A large variety of Novel Shapes.

The above are fitted with antique pendants, and the "extra heavy" with five-knuckle joints, and gold dust-band covering lift spring in hunting. The hunting cases all have very small springs, so as to make a close and compact watch. Even the "regular" weights have stiff backs, and will stand monogram and other engraving. The "heavy" and "extra heavy" are adapted for specially fine trade.

6 Size Hunting

Juergensen engine-turned, } In "regular" and
Bascine and } Plain polish, fancy or } "heavy" weights.
Flat Bascine } full engraved.

These cases are made with exceptionally light springs, and fitted with antique pendant and bow.

0 Size Hunting

Juergensen engine-turned, } In three weights—
Bascine and } Plain polish; fancy } "regular,"
Flat Bascine } or full engraved; } "heavy" and
diamond-set with } "extra heavy."
single stones, clusters }
and fancy designs.

These cases are all fitted with light springs, and make a small and compact watch. Antique pendants unless otherwise ordered.

0 Size Full Open-Face and Skylight

Juergensen engine-turned, } In "regular" and
Bascine—Plain polished. } heavy" weights.

With and without caps. Antique pendants unless otherwise ordered.

A Large Variety of Novel Shapes in } Elgin or Waltham 0 Size Hunting

Round vermicelli engraved edges on back; straight knurled and plain centers; five-knuckle joints; gold dust-band over lift spring; plain polished, engine-turned and fancy engraved; antique pendant. Specially adapted to fine trade.



The illustrations show samples of our regular lines of KEYSTONE SOLID GOLD Cases in plain polished and engine-turned.

Keystone Watch Case Company

19th & Brown Streets, Philadelphia, Pa.

Examine our rings

Compare our prices

Note the hundred perfected details

Then

You will have served your interest.

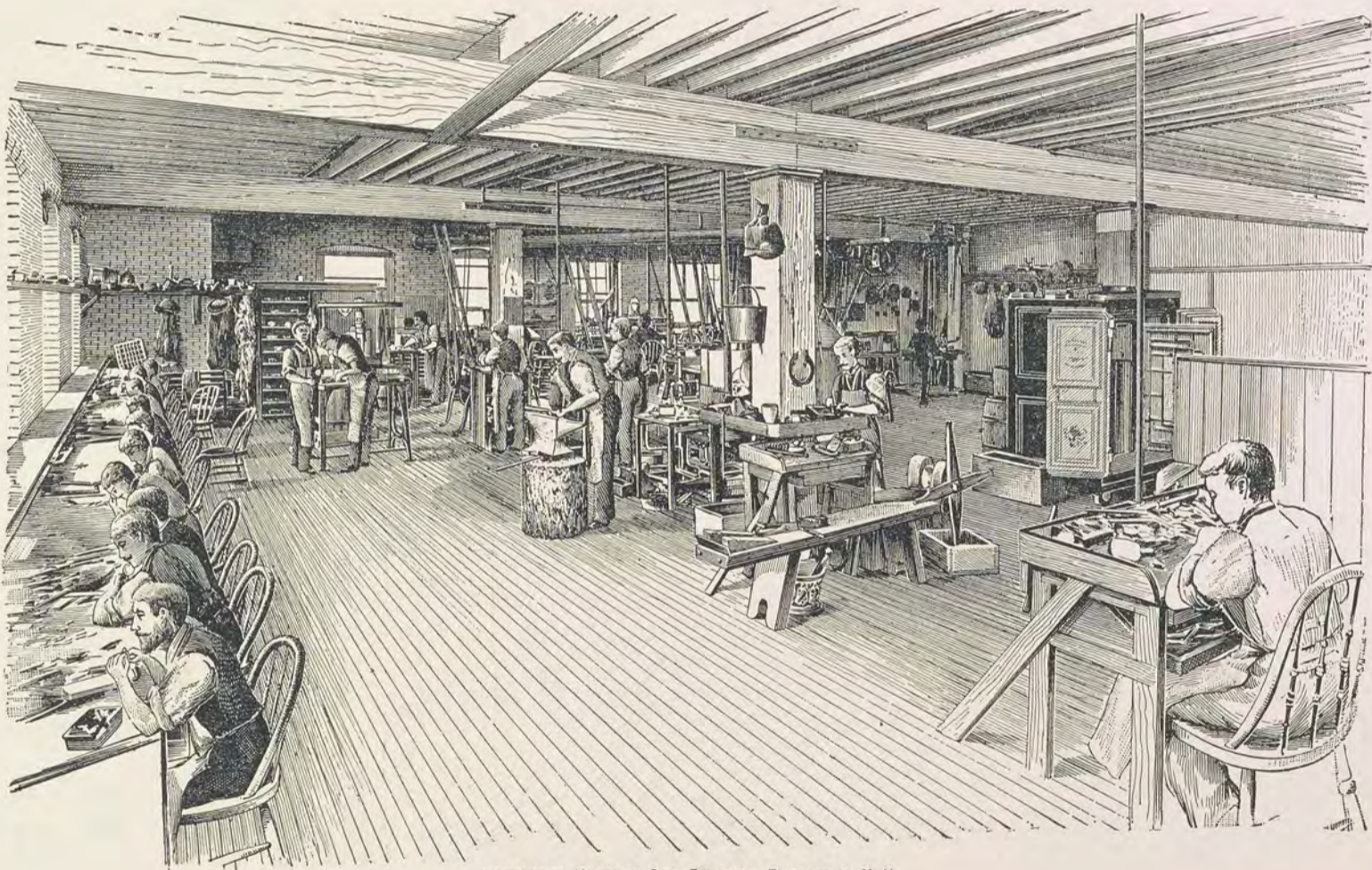
This ad. will have fulfilled its mission.

We shall sell you your rings.

Which shall it be

*a visit from one of our travelers,
or a selection package?
We await your pleasure.*

Write for our 1898-99 Catalogue—the most complete Ring Catalogue published.



SECTIONAL VIEW OF OUR FACTORY, BROOKLYN, N. Y.

2500 Varieties of Set Rings

LOUIS KAUFMAN & CO.

ESTABLISHED 1885.

Offices: { 54 Maiden Lane, } New York.
 { Fahys Building, }

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18 Size Open-Face.

THE POPULAR AND BEST AMERICAN-MADE
LOW-PRICED WATCH MOVEMENT

"CENTURY"

18 Size, $\frac{3}{4}$ Plate, 7 Jewel, Quick Train, Stem-Winding and Setting, Nickel Finish Damaskeened, Hard Enamel Dial with Depressed Seconds.
Fit all makes of cases.



18 Size Hunting.

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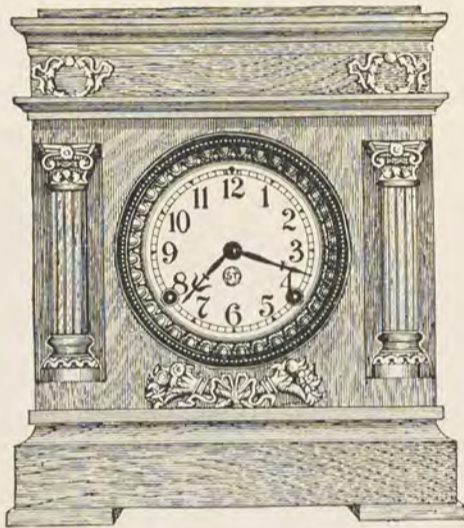
OSKAMP, NOLTING & CO.,
Cincinnati.
EISENSTADT MFG. CO.,
St. Louis.

MENTONE.



Height, 11 inches. Base, $9\frac{1}{2}$ inches.

CORDOVA.



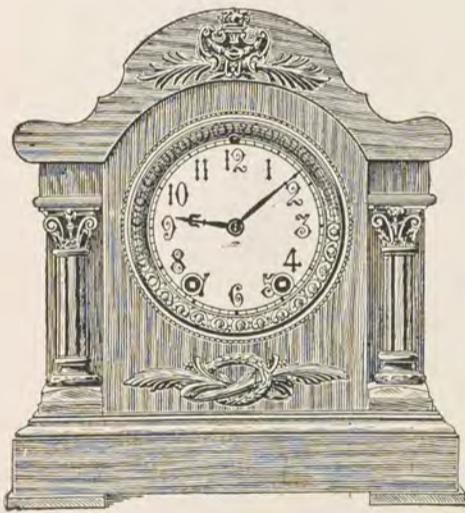
Height, $10\frac{3}{4}$ inches. Base, $9\frac{3}{4}$ inches.

SEVILLE.



Height, $11\frac{1}{4}$ inches. Base, 10 inches.

LISBON.



Height, $10\frac{1}{2}$ inches. Base, $9\frac{1}{2}$ inches.

These rich cabinet patterns are made in quartered oak and dark mahogany. Cases piano-finished, trimmed with metal ornaments of old brass finish. Have white porcelain dials with French sashes and beveled glasses.

8-Day Half-Hour Strike Cathedral Bell.

"Fine Goods for Fine Trade."

Seth Thomas Clock Co.

Makers of Clocks, Regulators, Watch Movements and Tower Clocks,

49 Maiden Lane, New York
144 Wabash Ave., Chicago
126 Sutter Street, San Francisco

THE KEYSTONE

VOLUME XIX.

PHILADELPHIA, SEPTEMBER, 1898.

NUMBER 9

THE KEYSTONE

A MONTHLY JOURNAL DEVOTED TO THE INTERESTS OF THE JEWELRY AND OPTICAL TRADES.

B. THORPE, PUBLISHER.

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Advertisements—Advertising rates furnished on application. No advertisements but those of a reputable character will be inserted.

To Advertisers—Copy for advertisements must reach us by the 25th of each month to insure insertion in the issue of the following month. Notices of changes in advertisements should reach us not later than the 20th of the previous month.

Correspondence—We invite correspondence on all matters of interest to the trade. Correspondents must invariably give their name and address. We do not, however, hold ourselves responsible for the opinions of our correspondents.

All communications should be addressed to

THE KEYSTONE,
19TH & BROWN STREETS,
PHILADELPHIA, PA.

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AUSTRALIA, S. MAVER & CO., 279 GEORGE ST., SYDNEY, N. S. W.

GREAT BRITAIN, ANGLO-AMERICAN OPTICAL CO., 94 HATTON GARDEN, LONDON, E. C.
J. RAPHAEL & CO., 51 CLERKENWELL ROAD, LONDON, E. C.

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TO UNWRAP YOUR KEYSTONE, SIMPLY PULL THE STRING

THE season for predicting good times is past. The realization already confronts us. Our people are, even now, experiencing the first stages in the evolution of a prosperity which, in its fulness and continuance, promises to eclipse all records. Never, probably, were conditions so rich in opportunity; never was so great a reward in sight for the energetic, wide-awake and enterprising merchant.

The War and Its Results.

THE war between Spain and the United States, which was begun on April 22d, when Spain gave Minister Woodford his passports, ended on August 12th, when, vanquished and humiliated, our haughty foe of a few months ago signed the protocol, or agreement to suspend hostilities, preliminary to the negotiation of a treaty of peace. This historic one hundred and twelve days' conflict has been unique in the history of warfare, in that it consisted of an absolutely uninterrupted succession of brilliant victories for the United States, and a corresponding series of disastrous defeats for Spain. Never, in the course of the war, did the effete monarchy gain a single advantage. She won no victory, captured no American vessels, and no prisoners except Hobson and his brave comrades. Two of her fleets were utterly destroyed, practically without injury to an American ship, and according to her own official count, she lost in all thirty-five war vessels! At the approaches to Santiago only did our force encounter stubborn resistance, but the result was the same—victory and glory for the American forces; defeat, humiliation and disaster for Spain. The expedition of General Miles to Porto Rico was rather a military excursion than a campaign, for the Spanish soldiers had lost heart and the natives loyalty. With her subjects of centuries in Porto Rico welcoming the invaders, the Philippines at the point of surrender and her very coast threatened by our fleet, Spain reluctantly submitted to the inevitable and humbly sued for a cessation of hostilities. But with characteristic quibbling she haggled over the terms, and dearly did her haggling cost her, for ere yet the news of the signing of the protocol reached the Orient, the battle of Manila was fought and won, and the Stars and Stripes floated over the capitol of the Philippines. Such, in brief, is the history of this remarkable war—a war which placed the United States in the leadership of nations, and left our bankrupt and vanquished foe without a fleet or a colony—"so poor that none may do her reverence."

The Terms of the Protocol

Never, probably, has national obstinacy been so bitterly and swiftly punished as in the case of Spain. The same country which, in April last, refused, even at the risk of war with a superior power, to cede a satisfactory measure of autonomy to Cuba, less than four months later signed the following historic agreement:

- First.* That Spain will relinquish all claim of sovereignty over and title to Cuba.
- Second.* That Porto Rico and other Spanish islands in the West Indies and an island in the Ladrone, to be selected by the United States, shall be ceded to the latter.
- Third.* That the United States will occupy and hold the city, bay and harbor of Manila, pending the conclusion of a treaty of peace, which shall determine the control, disposition and government of the Philippines.

It was also in the agreement that Cuba, Porto Rico and other Spanish islands in the West Indies shall be forthwith evacuated by the Spanish and thus have passed from Spain the last of her possessions in the New World which she discovered over four centuries ago. The disposition of the Philippines is the only matter now left for settlement, and while there has been no official announcement of the views of the Administration, the belief prevails that the United States will insist at least on the retention of the Island of Luzon, on which the City of Manila is situated, and equal trade facilities with Spain in the remainder of the Philippine group.



Peace Commissioner Day.

Membership of Peace Commission

The commission to formulate terms of peace between the United States and Spain will be known in history as the Paris Commission, inasmuch as the French capitol has been agreed upon as the meeting place. The American members of the Commission, named by President McKinley, are the following: Ex-Secretary of State William R. Day; Senator Davis, of Minnesota; Senator Frye, of Maine; Justice White, of the United States Supreme Court, and Hon. Whitelaw Reid. Ex-Secretary Day will be chairman of the Commission, and is particularly well equipped for the position, owing to his experiences with Spanish diplomacy and his personal knowledge of government affairs gained while Assistant Secretary and Secretary of State. The Commission, in its entirety, is considered a strong combination with an abundance of backbone. Senators Davis and Frye are noted for their aggressive Americanism with expansionist leanings, and their appointment on the Commission has met with universal approval. As to Justice White's fitness there can, of course, be no doubt. He is alike learned in law and statesmanship, and is a master of the Spanish

language. Hon. Whitelaw Reid is a man of superior ability, varied accomplishments, and is experienced in diplomacy, being at one time United States Minister to France. With such a strong Commission there need be no fear that we will not reap the full reward of our victory, and no hauling down of the Stars and Stripes may be anticipated.

The many benefits that will accrue to us as a result of the war is an agreeable contemplation. The cost of the struggle is placed at \$150,000,000, and, while we ask no money indemnity from Spain, the amount is probably the best-paying investment which our country has ever made. Worth more than all else to us as a result of the conflict, is the fact that for the first time in a generation the nation presents an undivided front, knowing neither North nor South, nor East nor West, but one grand and glorious country, a unit in national sentiment and aspirations. The issues that bred discord and dissension in the past have been buried, and even the memory of them, we trust, will never be resuscitated. We, in the North, gloried in the achievement of Hobson, and honored the patriotism of Lee; we witnessed with joy in our own city last month the civic honors and enthusiastic welcome accorded the Gettysburg stalwarts of Pickett, and they, as the most natural expression of their feeling, decorated the graves of their former foemen with the national flag. Farewell to sectional strife and animosity between North and South. Mason and Dixon's line may continue to exist as a geographical distinction—as a racial separator, never!

"I never thought it would come to this;
It's strange, but I reckon it's true;
For it's jest one country, and jest one flag,
And we're all a-wearin' the blue!"

Such unanimity of sentiment has never been witnessed as in this glorious country during the late war. Party vied with party in showing its patriotism, religion vied with religion. The distinction between the classes and the masses was obliterated. The millionaire fought side by side with the penniless plainsman while during the deadly guns on San Juan Heights, and they were "brothers ever" whether in face of hard tack or the Spaniard. All honor to the brave fellows who lost their lives in the struggle. Verily, they died not in vain.

Apart from the hastening of national unity the war has been for us an advertisement of measureless value. In recent years Europe has become rudely awakened to the industrial progress of this country, but has had an indifferent conception of our national power. According to foreigners who considered themselves excellent judges, the war with Spain was to last for years, and, although victory in the end was conceded to us, the struggle was to entail enormous losses and sacrifices, and arrest, for a time, our industrial and national progress. Some European military prophets even refused to predict ultimate victory for us. Whither these prophets have retired to kick themselves we know not. It suffices for us to know that suddenly the eyes of the world have been opened to our national power, and that our future destiny as the arbiter of the world's peace is conceded. Europe is marveling no less at the wonderful resources and lightning progress in the peaceful arts that enabled us, almost in a night, to

The War as an Advertisement

provide all the essentials of war, military and naval, necessary to cope quickly and successfully with a foreign power. As a matter of fact, orders are now being received by makers of machine tools in this country from entirely new customers in foreign countries which have not hitherto patronized American firms, and there is evidence to show that these orders have been due, indirectly at least, to the advertisement which the war has given to the merits of American machinery. All branches of industry will benefit, but especially the iron and steel industries. Our own city of Philadelphia is now building warships for Russia and Japan, and locomotives for the earth, and there is no doubt that the United States will soon lead the world in all manufactures of iron and steel, from battleships to scissors. This is no mere meaningless eagle scream. An English journal before us concedes the fact, and by way of convincing its readers tells them that the present annual capacity of blast furnaces in the United States exceeds the annual output of the entire world only twenty years ago, and that the present capacity of our steel-making plants is more than three times the whole annual product of the world less than twenty years ago. Great Britain, which formerly led the world in production of steel and iron, is now far behind this country, her capacity being only about one-half that of the United States. On such a basis of fact it is easy to build credible predictions.

New Territory and Trade

Apart from the benefits of the war in the shape of national unification, and as an advertisement, there is the more tangible acquisition of new territory, with greatly-extended trade possibilities. Capital will follow into Cuba and Porto Rico, and both are islands of wonderful fertility and great mineral resources. On the Pacific trade prospects are luminously bright. Hawaii is ours and not only North of the equator, but in the South Seas are we to have increased trade facilities. The Government will devote \$250,000 to establish a naval coaling station at Pango-Pango, in the Samoan Archipelago. This evidently means the the maintenance and development of trade in South Pacific waters, for Samoa is as far from Manila as from San Francisco, and over 2,200 miles from Honolulu. With coaling stations at Pearl Harbor in Hawaii, Pango-Pango in Samoa, Guam in the Ladrões, and Manila in the Philippines, our merchant marine may eventually make the vast Pacific practically an American Ocean.

The Pacific coast is fully alive to its new destiny, and the next project on the programme is the laying of a cable from San Francisco to Hawaii, thence to Guam, Hong Kong and Manila, connecting with Japan. Next on the programme is the making of the Nicaraguan canal to connect the Atlantic and Pacific. The accomplishment of this project has become a necessity under the new post-bellum conditions. In fact, our trade possibilities on the Pacific are almost beyond conception. We are nearer the eastern harbors of Asia than any other country. We own one bank of the Pacific, have a direct run across to the Asiatic coast, and ours should be, in time, the lion's share of the trade from Vladivostock to Melbourne. Oriental trade is, at present, the bone of contention between the great powers of Europe, and it behooves this country to lose no advantage that chance or design may have given it. It is a question of bread and butter rather than of sentiment or politics.

Anglo-American Friendship

One result of the war that may have an important bearing on the future history of the world, is the decidedly friendly feeling which the conflict created between England and the United States. Allied in blood, language, morals and aims, such a feeling is only natural, but quarrels in the past were unfavorable to its cultivation. In our recent trouble, however, the truism that "blood is thicker than water" was very much in evidence. At the outbreak of hostilities France crouched for a spring, there was no doubt as to Russia's preference, while Germany snapped at our heels in currish fashion and kept up the snarling with tantalizing persistency. Great Britain, however, took pains to manifest her friendship in every way consistent with international ethics, and the continental trio could but frown at the possible combination. This means, if anything, the dominance of the Anglo-Saxon race and possibly its ultimate destiny as the world's conservator of peace.

As an unmistakable indication of the friendly feeling of the two countries and the possibility that all future difficulties between them will be settled by arbitration, there met, on August 23d, a high joint commission, appointed by Great Britain and the United States, to settle questions of importance between Canada and our own country. These questions include the delimitation of the Alaska-Canadian boundary, fishery and fur seal difficulties, transportation to or from either country across intermediate territory of the other, trade reciprocity, customs duties difficulties, and other questions now in dispute. The commission will have, no doubt, fruitful results in view of the cordial spirit now animating both peoples. It was at a happy time that the British laureate made his appeal:

"Kinsmen, hail.
We severed have been too long.
Now let us have done with a worn-out tale—
The tale of an ancient wrong;
And our friendship last long as love doth last,
And be stronger than death is strong."

A hard and fast alliance with England is not to be thought of, but a friendly understanding and co-operation could not fail to benefit both and militate in favor of permanent peace and progress the world over.

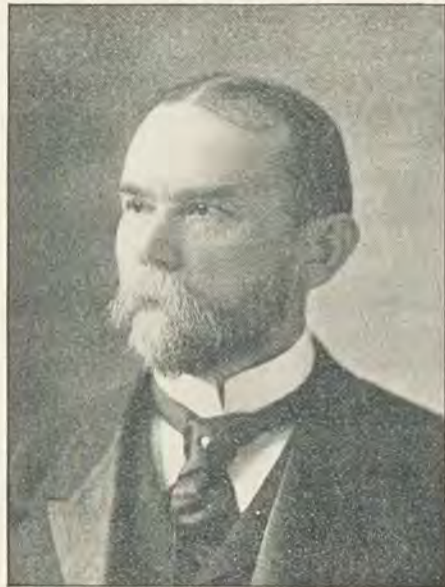
American Exhibits at Paris Exposition.

AT the outbreak of the war, owing to France's avowed sympathy with Spain, it was feared that America would miss, for the sentimental reason of retaliation, the great opportunity for advertising afforded by the big Paris Exposition of 1900. Sentiment has changed in the meantime, however, and there is now a veritable rush for space by prospective American exhibitors. Only 150,000 square feet have been allotted to the United States thus far, and enough have applied for space to make a World's Fair of themselves. Commissioner Peck, in view of the number of applications, will go to Paris, and he hopes to secure 500,000 square feet instead of 150,000. The rise in prominence of everything American, owing to our victories in the war, leads the Commissioner to believe that he will be able to secure much more space than was originally awarded.

That an increase is needed is shown by the fact that among the applications thus far received ten electrical companies have asked for more than 75,000 square feet, or more than half the available space, and it is estimated that the exhibits of the electrical exhibitors alone will be valued at over

\$1,000,000. An agricultural company has also asked for more than half the space allotted. The whole list of applicants for space will number many thousands, and the Commissioner anticipates that there will be at the lowest estimate over two thousand exhibits from the United States. The late war will have the effect of directing the attention of the world to our exhibits, and the opportunity should be made the most of.

Our New Secretary of State.



Secretary of State Hay.

PEACE Commissioner William R. Day has been succeeded in the Secretaryship of State by Hon. John Hay, ex-ambassador to England. The appointment is an ideal one, its only regretful feature being his withdrawal from the Court of St. James, where his social graces, diplomatic accomplishments and broadminded statesmanship were so potent in cultivating friendly feeling with England at a crisis in our history when such friendship served us. Mr. Hay has had a long official experience. He was Assistant Secretary to President Lincoln, and during the civil war attained the rank of Assistant Adjutant-General. His diplomatic career began in 1865, when he was sent to Paris as Secretary of Legation. In 1868 he became *charge d'affaires* at Vienna, and in 1869 he was appointed Secretary of Legation to Madrid. He spent many subsequent years as editor and author, and in 1879 was appointed Assistant Secretary of State. President McKinley honored him with the position of Ambassador to England, and now confers on him the further honor of Secretary of State. Few have held the position who were better qualified. He holds an honored place in the world of letters as historian, poet and romancer.

All Honor to Our Citizen-Soldiers.

THE mustering out of the volunteers has already begun, and it is the duty of THE KEYSTONE in the name of the trade to extend its tribute of admiration to our citizen-soldiers. Quite a number of them were subscribers and readers of this journal, and these we cordially welcome back to their homes and business. All did nobly, whether in camp or field, and all are alike entitled to their country's gratitude. As President McKinley said with characteristic aptness: "The highest tribute that can be paid to the soldier is to say that he performed his full

duty. The field of duty is determined by his Government, and wherever that chances to be is the place of honor. All have helped in the great cause, whether in camp or battle, and when peace comes all will be alike entitled to the nation's gratitude." Noble words, these, and they should not be forgotten in distributing the glory. Not all were given the opportunity for active service, though all were eager for it; but this is a case in which, as Milton expressed it, "they also serve who only stand and wait."

Big Additions to Our Navy.

AS a result of our acquisition of distant territory, our prospective expansion of trade and our new position of prominence in international affairs, a very much larger navy is a first necessity, and the authorities are already planning to furnish this essential on a worthy scale. The Naval Board has decided to ask Congress to appropriate the requisite money to build fourteen more warships: Three sea-going barbette-turret battleships of 13,000 tons displacement and a minimum of 18½ knots speed when the vessels are loaded to their deepest draught, or an average speed above nineteen knots under ordinary cruising conditions; three first-class armored cruisers of 12,000 tons and twenty-two knots speed; three second-class protected and armored cruisers of 6000 tons displacement and twenty knots speed, similar to the Maine type, but highly improved, and six protected cruisers of 2500 tons and sixteen knots speed.

As to the matter of smaller craft, the Navy Department opened bids on August 23d for sixteen torpedo-boat destroyers and twelve torpedo boats, to cost in the aggregate not exceeding \$6,900,000, as provided in the last naval appropriation act. These twenty-eight destroyers and torpedo boats constitute the largest single addition ever made to the navy. The destroyers are to be completed within eighteen months and the torpedo boats within twelve months. According to the requirements of the department, the destroyers are to have a guaranteed speed of twenty-eight knots, and the torpedo boats twenty-six knots.

With the wonderful achievements of our navy in the late war still fresh in the memory of our people its expansion as outlined above cannot fail to meet with national approval.

Significant Gold Statistics.

THE gold product of the world has a double interest for the jeweler, as it bears at once on his art and the monetary system under which he does business. From either point of view the estimate of the world's production of gold for 1897 and 1898, just published by the Mint Bureau, is specially interesting. The total output in the former year is known to be close to \$240,000,000, against \$202,000,000 in 1896, while the result of the first six months of this year stamp the estimate of \$275,000,000 for 1898 as conservative.

Of the 1897 total, Africa produced about \$60,000,000, against \$45,200,000 in 1896, and Australia almost reached the same figure, against \$44,400,000 in 1896. The United States production was \$58,000,000, against \$53,100,000 in 1896, showing that from first place in point of output the United States has fallen to third place. Furthermore, the output of Africa for the first five months of this year was 1,616,993 ounces, against 1,136,902 which seems to justify the calculation that its

total output for 1898 will reach \$75,000,000. Returns from Australia indicate a production this year, of \$60,000,000, while it is believed that the United States will go up to second place with a production of \$63,000,000. These three countries alone, on this showing, would contribute \$200,000,000 to the world's supply of gold. As all the other countries will contribute at least \$60,000,000, the estimate of \$275,000,000 does not seem excessive, especially when the Klondike output is estimated at only \$10,000,000.

These statistics leave no doubt that there will be a superabundance of gold both for monetary purposes and for the arts, and the prospects are for a permanently increasing output.

Holland's New Queen.



Queen Wilhelmina, of Holland.

THE sixth of September will be a notable day in the history of Amsterdam, Holland, the great diamond-cutting city, with which many of the trade have intimate associations. On that day the crown of the Netherlands will be placed on the brow of young Queen Wilhelmina, who is now eighteen years old. This girl monarch is said to be beloved by her people, and like another and more aged queen, it is said that she will rule with her excellent qualities of heart and mind rather than with the sway of the sceptre. So may it be. As a queen her armies and fortresses will be small and few, but her homes are pure and clean and her people contented and peace-loving.

The story of Holland is one of the most noble in history. If we speak of the cradle of liberty, let us not forget Holland's claim to this distinction. Every inch of land is blood-bought, and the blood of the people has made the desert to blossom as the rose. Countless armies of foreign tyrants have tried in vain to forge slavery's chains upon her. She broke her own dikes and sacrificed her fertile fields, her matchless herds and her comfortable homes; she let in the tyrant sea rather than bow to the tyrant king. How hospitable she has always been to the oppressed and downtrodden of the world we all know. When England could not hold the Pilgrim Fathers, they found in Holland a refuge and a school of liberty, where was intensified that broad spirit that reached its full development on the rocky New England shores. The spotless fame of Holland seems to be well personified in her pure and noble young queen, for whom all nations wish a peaceful and happy reign.

The Little Decencies in Business.

THE measure of a merchant's sense of honor is often taken from his observance, or his ignoring, of the little decencies in business.

It is not always the rating in the commercial agency reports which fixes the status of a man's standing, in the estimation of those who sell him. There are "surface indications," as they say in mining communities, which go far toward determining his desirability as a customer, and earn for him the respect of those whose respect counts for dollars and cents. The merchant who uniformly observes the little proprieties secures a measure of good will from his creditors that will help him over many a "lumpy" spot on his road to success.

An opportunity to exhibit *character* in business is afforded by one of the provisions of the new War Revenue Act, relating to the stamping of checks and notes.

A retail jeweler, in the hearing of the writer, declared that he didn't intend to put stamps on the checks sent to jobbers and manufacturers, given in payment of bills. "What's the use? They will put the stamp on before they deposit the check in the bank—they'll *have* to—and they ought to be glad enough to get my check, and be willing to put on the measly little stamp. They can afford to do it," etc., etc.

Yes, they probably can afford to spend two cents on the customer's check; but can the customer afford to *make* them do it?

The customer does not fear that the jobber or the manufacturer will "make a case" and put the maker of the check in jeopardy of fine and imprisonment. He counts on the fact that the recipient would have nothing to gain thereby, except the vindication of his sense of justice, and much to lose, in ostracising a customer. So the customer saves two cents and "soaks" the wholesaler.

But it is a doubtful saving. The man who opens the letter containing the check frowns a bit, and maybe says "Pig!" or some more sulphurous word. The unstamped check is an object-lesson, among the dozen or more other checks, duly stamped, which arrive in the same mail. The sender of the unstamped check has lost some little mite of the recipient's respect; and is either adjudged careless, which is always a hurtful opinion, or deliberately mean, which is worse. He is impaled on one of the two horns of the dilemma.

The decent merchant invariably encloses a stamp for reply to a question entirely outside of his line of business; as, for instance, when he asks his jobber to give him the address of a dealer in second-hand clothes. He rightly considers that his correspondent has done enough to give him the time necessary to make reply.

The decent merchant, further, answers every letter *promptly*; makes acknowledgment of any special favor; in other words, he undertakes to practice the same politeness in business which he observes in his social relations. The rules of gentlemanly conduct are quite as much to be followed in the office as in the drawing-room. Good manners know no limitations as to their area of display. And while the "little decencies" which we have instanced are such as come to the merchant in his relations with his fellow-men through correspondence, in the vastly larger number of points of contact with his fellows in his face-to-face relations he should be equally watchful of the amenities and decencies which make business a pleasure and the profession of business honorable.

Stamp Your Checks and Notes.

THE provisions of the War Revenue Act, now in force, make imperative, under penalty, the following requirements:

Every bank check, draft or order for the payment of any sum of money drawn upon or issued by any bank, trust company, or any person or persons, companies or corporations, payable at sight or on demand, must have affixed a *two-cent revenue stamp*.

Every promissory note, and renewal of same, also drafts payable otherwise than at sight or on demand, for a sum not exceeding one hundred dollars, must have affixed a *two-cent revenue stamp*. For each additional one hundred dollars, or fraction thereof, in excess of one hundred dollars, an *extra two-cent* tax is imposed.

Every person using or affixing the revenue stamp as directed above, must *write* or *stamp* thereon the *initials* of his *name*, and the *date* upon which the stamp shall be attached or used, so that the same may not again be used.

Failure to stamp checks, drafts or notes, as directed above, invalidates them in law, and is deemed a misdemeanor punished by a fine of not more than one hundred dollars.

Failure to cancel the stamps by initials and date is deemed a misdemeanor, punishable by a fine of not less than fifty nor more than five hundred dollars, or by imprisonment of not more than six months, or both.

A strict observance of this law will be kept by all self-respecting jewelers, for two reasons: first, because it *is* the law, and ignoring it subjects the careless to penalty of fine and imprisonment; second, because, with every stamp affixed to a check or note, the maker testifies to his patriotism by thus making contribution to the fund that is necessary to the prosecution of a war that was undertaken in behalf of humanity—the succor of an unarmed and helpless people from starvation and torture. Every maker of a check should be glad of the opportunity to exhibit his interest in the advancement of the honor of his country.

How Diamonds Have Made History.

THE diamond has always played an important part in the drama of history. Even in the "little history" which concerns individuals only, they have influenced motive beyond the computation of any observer. The secret springs of action can often be traced to desire for these sparkling bits of mineral. How many lives have been turned from the path of rectitude, how much envy and bitterness of heart have been nurtured, what appalling crimes have been committed because of the universal eagerness for them! What a long list of evil thoughts and wicked deeds have grown out of the fact that diamonds are rare and beautiful and costly! Human vanity and acquisitiveness have ever centered around the sparkle of the diamond, as moths flutter toward the evening lamp. The history of human society has been measurably affected by these shining pieces of stone.

But not alone in the little world of individual relations, but in the larger sphere of national history, the diamond has played an important part. In the long period of Indian history before England acquired supremacy, the dusky princes fought sanguinary battles for the possession of a celebrated stone. Thousands of Hindoo warriors laid down their lives in desperate effort to acquire such a stone for a reigning monarch, or for an

ambitious adventurer. It is said that the pair of great diamonds which now form the eyes of an East Indian idol cost a human life for every sixteenth of a karat of their huge bulk—in open warfare, in secret assassination, in plot and counter-plot.

America might possibly not have been discovered by Columbus, but by a Dane or Englishman, thus changing the whole face of modern history, but for the fact that Queen Isabella sold her jewels and was thus enabled to equip the expedition.

One of the most interesting diamonds, in its relation to nations and the sequence of events, is the "Pitt" diamond, now known as "The Regent." It has been an important factor in shaping the destiny of men and peoples. It was discovered by a slave, in 1701, in the Parteeal mines, in India. To conceal this splendid treasure, weighing over 410 karats, he cut a hole in the calf of his leg and hid it in the wound and the surrounding bandages. Escaping to the coast, he confided his secret to an English skipper, who took the slave on his vessel with a pretense of carrying him to a free country, but threw him overboard when at sea, sold the stone for \$5000 on landing, squandered the money in dissipation, and finally hanged himself in a fit of remorse. The buyer sold the diamond to the great-grandfather of the English statesman, William Pitt, for \$122,000. Pitt had the stone cut and polished at an expense of \$25,000, but the cleavage and dust realized for him \$75,000. He sold it to the Duke of Orleans, Regent of France, for \$875,000. Later, when the French crown jewels were inventoried, in 1791, it was valued at \$2,400,000. Soon after, during the riots of the "Commune," it was stolen and buried in a ditch. One of the robbers, in return for his pardon, betrayed its whereabouts; the others were guillotined. Its recovery did more than any one thing to put Napoleon upon the throne of France, because by pledging it to the Dutch government he was enabled to raise enough funds to make a success of the pivotal Marengo campaign. It now rests in the handle of the Emperor's sword, and meets the eyes of curious tourists in the Galerie d' Apollon in the Louvre, in Paris. It stands for great events in the history of the world, but has brought more of tears than joy into the world. It sent its first dishonest holder to a grave in the sea, the second committed suicide, the third was beheaded, and it caused the death of thousands in the campaign of Napoleon which its possession enabled him to make possible. It helped the creation of the French Empire, and is identified with the fortunes of the greatest statesman that England ever had, before the coming of Gladstone.

The "diamond necklace of 1775" played a great part in the politics of the times. It was made for Madame Du Barry, the mistress of Louis XV., but she was excluded from the court before the splendid jewel came into her hands. No one could afford to buy it (the value of the stones was \$400,000) except, apparently, the profligate Cardinal de Rohan, who was persuaded by the Countess De Lamotte that the queen (Maria Antoinette) would grant him her favors in return for the gift. The present was sent to De Lamotte for the queen and the queen's name was forged to a receipt; but the jewel never reached her, the whole enterprise being a trick of De Lamotte, who sold the jewels piecemeal. This woman was branded and imprisoned for life. The queen was ignorant of the whole transaction until afterwards, though when the mob of Paris surged around her

(Continued on page 682.)

“Friends, Romans, Countrymen, Lend Me Your Ears!”

they probably did so. WE ask like indulgence on the part of the AMERICAN JEWELERS throughout the country. This request for your good, as well as our own.

*As evidence of this assertion,
LOOK at this array of “Specials”
to be found here; nowhere else.*

“**DUCHESS**” is the name of an O size and 6 size, 7 jewel, nickel, Elgin movement, decorated with rich gold ornamentation.

The O size now ready for delivery.
6 size ready October 1st.

“**EMPRESS**” is the distinguishing name of an O size, 15 jewel, nickel, Elgin movement to be ready about October 1st.

No. 410, an O size, 15 jewel, nickel, Elgin movement, now in stock.

No. 409, our number for same grade in 6 size, also ready,

No. 411, 412, 405, 406, 407 and 408, are 7, 15 and 17 jewel, 16 size, nickel, Elgin movements, O. F. and Hunting.

No. 401, 402, 403 and 404, are 15 and 17 jewel, 18 size, nickel, Elgin movements, O. F. and Hunting.

No. 413, 414, 415 and 416, denote the numbers of 7 and 15 jewel, 12 size, nickel, Elgin movements, O. F. and Hunting.

No. 104 and 114, are 16 size, 7 jewel, gilt, old model, O. F. and Hunting, Elgin movements.

No. 135 and 138, are 16 size, 15 jewel, gilt, old model, Elgin movements.

(Of these last four grades we bought the entire product—all there were and all there will be.)

“**PENELOPE**” is the name of an O and 6 size, 7 jewel, Waltham gilt and nickel movement, while

“**PRISCILLA**” is our O and 6 size Waltham, 11 jewel, gilt and nickel movement. Of course the price somewhat more than the 7 jewel, but much less than that of the regular 15 jewel movements.

No. 801 and 802, are gilt and nickel, Hunting and O. F., 11 jewel, 16 size, Waltham movements. (These must be popular, for there are no other 11 jewel, 16 size movements.)

All of the above movements are made especially and exclusively for us by the Elgin and Waltham Companies.

This is only our poster.

For more detailed information, look for our “small bills.”

September, 1898.

In the New

Order of Exercises

We propose to be

More Aggressive,
More Progressive,
To
Hit Harder,
Bore Deeper,
Build Higher,
Stone Ballast the Road Bed,
Broaden the Gauge,
Use Heavier Rails,
Improve the Equipment,
all of which leads
up to what we wish
you to do, viz., to



C. G. ALFORD & Co.

195 & 197 Broadway,

New York.

on her way to the guillotine a hundred voices shouted at her the vile accusation of her guilty love.

We have not room to relate the story of other great diamonds, in their relation to the history of countries—such, for instance, as the Sanci diamond, owned successively by the Duke of Burgundy, the King of Portugal, James II. of England, Louis XV. of France, and now by a Russian nobleman, and which was once swallowed in order to save it from robbery (the stone afterward being recovered from the stomach of the dead guard who had the wit thus to foil the thieves); but the conclusion is inevitable that diamonds have had much to do with shaping history and affecting the sequence of great events.

The Outlook for Fall Trade.

THE economists tell us that all wealth comes out of the ground; in the form of crops, or minerals, or the animals which find sustenance on the ground or in the water. Consequently the increase of wealth depends upon the productiveness of the ground, combined with the conditions of demand, which make these products available to humanity through the medium of exchange.

If we accept this as a fundamental fact, the American people may look forward to a hastening of the era of prosperity; for the present conditions are altogether favorable to a confident forecast of the future.

A comprehensive inquiry into present agricultural conditions at home and abroad has just been completed by the Orange-Judd syndicate of agricultural weeklies; and from its report we summarize the following interesting facts:

The increase in farmers' receipts for last year's produce over the values that prevailed as late as 1895 are over one thousand million dollars. In the last two years \$100,000,000 of farm mortgages have been paid off, millions of chattel mortgages have been cancelled, and the paying up of other forms of indebtedness has almost become a mania in the West. These gains are largely responsible for the enormous increase of more than \$1,000,000,000 in national bank resources since 1893, and more than \$400,000,000 in the past year.

The wheat crops of 1896 and 1897 returned to farmers nearly twice as much cash as the wheat crops of 1894 and 1895. Corn shows a decline, in these contrasted groups of years, of \$150,000,000, but the two staples make a net gain, in the period, of \$250,000,000. The wheat exported from the United States in the past year, owing to the phenomenal crop shortage abroad, sold for a little more than *the whole crop* realized in 1893, 1894 or 1895.

The prospect is that the largest tonnage of crops will be harvested this year than ever before produced in America. Prices bid fair to be reasonably well maintained and indicate a total return for the staples of \$100,000,000 more than last year. "Even if the world should have a 'bumper' wheat crop, its supply for the two years ending June 30th next would be some 100,000,000 bushels less than for the previous two-year period of advancing prices, indicating that the fair prices paid for the 1896 crop (from 63 to 93 cents at Chicago) are likely for the present crop."

The advance in the value of agricultural real estate is a conspicuous fact. The live-stock industry is again flourishing. Trade with the farmers has increased from 10 to 300 per cent.,

depending upon the locality, over the previous year. Collections are easier among farmers than for years. The general unanimity of reports as to increase of farmers' trade is proof conclusive of the evidences of larger purchasing power among this class, and forms the bed-rock of hope for a general prosperity among all classes in the community, since the money thus put into circulation stands for actual increase of wealth—the creation of wealth "in original packages."

Without herein taking account of the other factors which are part of the grounds of conviction that several years, at least, of prosperity are ahead of us—such, for instance, as the removal of disquieting agitation concerning tariff duties, uncertainty as to the kind of money that forms the medium of our exchanges, the distribution of great sums in the prosecution of the war, and the certainty that this initial outlay will all be returned to us in the form of indemnity, or an equivalent in additional territory at the end of the war—we quote, in conclusion, from the report of the agricultural investigation:

"We look for an industrial activity early this fall quite unparalleled, with quick markets at home and abroad for the surplus of American farms. We find no reason to anticipate higher or fancy prices for produce, but with economy in production and marketing brought about by recent improvements, and having regard also to the cheapness of manufactures (also due to inventions) and the ease of money, our deliberate conviction is that the average American farmer is to have the largest prosperity he ever enjoyed. This forecast is measured by the standard of the present, by the exchangeable power of farm products for the products of labor in other vocations."

Sending Stamps by Mail.

WHEN you have occasion to send stamps in a letter in these hot, muggy summer days, keep in mind the soul's welfare of the man at the other end of the line; look to it that they do not reach him stuck unyieldingly to the paper, and that you do not thus unwittingly send your correspondent on the broad way which leadeth to everlasting destruction, for it is laid down in the commandments that a man shall not swear except to the peril of his soul.

If you have no paraffined or oiled paper at hand, in which to enclose the stamps, you have another way to prevent the sticking, unless you are bald as a billiard ball—simply give the gummed side of the stamp a wipe on your hair, and let it go at that. It will reach your correspondent ready for use. The natural oil on your hair will sufficiently coat the gum to prevent its sticking.

If you are so hopelessly bald that you cannot produce the oil mat, and if there is no obliging clerk at hand to lend the service of his capillary abundance, buy a money order—or go out of business until the cold season arrives. You have no defense on judgment day, otherwise.

The Hunt for Unhappiness.

WHAT a queer contradiction human nature is! We are put into the world for a very brief span of years, and every rational instinct should lead us to make the most of our short stay. We are invited to be happy by every voice in bountiful nature. Every condition in external circumstance has been arranged that we may "rejoice and be exceeding glad." But there are

men a-plenty who deliberately shut their eyes to these opportunities for happiness, and face the other way in search of things to make them miserable.

There is nothing so easily found as trouble. It is always lying around, and often falls in a man's way when he isn't looking for it; and if he really *wants* it his search is sure to be successful.

It is even easier to find fault than to find trouble. It is the most abundant product in the experience of humanity; for it can be found *where it does not exist*. In such cases the fault which *seems* to exist is only the blur on the eye of the looker. But is real to *him*, and heaven help him! For him, the world is "chaos and black night." He lives among cob-webs and mold and bad smells. He forgets that it was a beautiful day yesterday, but is quite certain that there will be rain to-morrow. He hears a sob when he should be listening for a song.

"Every man is as heaven made him, and sometimes a good deal worse," says Cervantes. To believe that a man is manly helps to make him so; but so many men there are who don't believe in themselves—and that is their undoing. They come to their unbelief largely through their fears; they are skeptics because they have chronic "blues." Such a one is a nuisance to himself and an affliction to his friends. The trouble-seeking pessimist is a sorrow in a world that holds for all of us some glints of sunshine and some shreds of song.

"If to hope over-much is an error
'Tis one that the wise have preferred,
For how often have hearts been in terror
Over evils that never occurred."

Keeping Up Stock.

PROVIDE yourself with a little blank-book. In it jot down the "short" items in your stock, as these items reveal themselves. Then you are prepared to order just what you need, when the traveling men come your way, or when you are sending for goods. There will be no omissions; no oversights; no paying express charges on two packages that might have come in one; no "just out" answer to disappointed customers. It is the only way to *insure* a full stock. Besides, the mind is not taxed to remember shortages; there is no knitting the brows, or ordering at random; there is no chancing, with the inevitable result of duplications of orders; the system goes on smoothly, and the merchant feels that life is worth living. He takes his place with the self-respecting.

Once you have kept a Shortage Book for a month, you will wonder how you ever got along without it. Try it and see.

The mind of a bigoted man is like the pupil of the eye—the more light you pour on it, the more it contracts.

One never quite reaches the graduating class in the school of experience.

The man who "means well" and does ill is half-brother to the out-and-out scamp. "The road to hell is paved with good intentions."

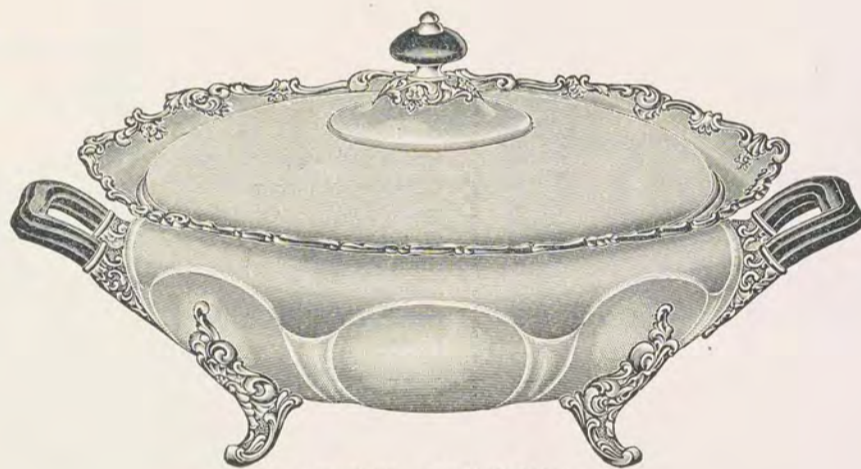
Two and two are four; 2 and 2 are 22. There are few "self-evident" facts. A vast amount of dispute could be avoided if the disputants could manage to stand on the same point of view—and practice a little amiability.

THE MIDDLETOWN PLATE COMPANY

MIDDLETOWN, CONN.

invites the attention of the Trade to superior lines of Sterling and Silver-Plated Ware, that are alike creditable to the manufacturer and the merchant who shall deal in them.

The inferior grades, so abundant for four or five years, are discovered to be worthless, and the demand for goods made by reputable manufacturers must increase.



No. 4000. BAKING DISH.

The reputation of our wares is the result of over thirty years of effort and experience.

Sterling Wares stamped "M," Sterling,
or "M, $\frac{925}{1000}$ Sterling."

Plated Ware stamped "Man'f'd and Guaranteed by the
Middletown Plate Co.,"
are the highest grade of wares.

Salesrooms:

22 John St., New York.

120 Sutter St., San Francisco, Cal.

502 Masonic Temple, Chicago, Ill.

New Goods and Inventions.

[The illustration and description of new goods and inventions as hereunder is a permanent feature of THE KEYSTONE, our twofold object being to keep the merchant jeweler thoroughly posted on the very latest and most salable goods, and the practical jeweler equally well posted on the newest inventions and improvements in tools and appliances used at the bench. For the benefit of the optician, we also illustrate and describe new optical goods and instruments in this department.]

New Spring-back Stud.

Probably no article of every-day use has so baffled the skill of the inventor in his efforts to perfect it as has the humble shirt stud. A new spring-back stud, which is said to fulfil all requirements, is shown in our illustration. The stud is made by Larter, Elcox & Co., New York, and is novel in construction. The spring is placed inside the pin or piston, which means a lengthening of the pin and greater security for the stud. The post is placed in the center of the back, which makes the stud suitable for either button hole or eyelet, and the stud has yet other merits that commend it to shirt wearers and the trade.

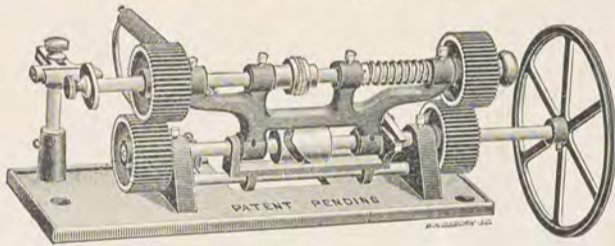


A Handsome New Flatware Pattern.

Our illustration shows another beautiful new pattern of silver-plated flatware made by Wm. Rogers Manufacturing Co., Hartford, Conn. Refinement, rather than showiness of ornamentation, is the popular preference now-a-days, and the manufacturers are keeping this in view. This new pattern is known as the "America," and is such as will appeal to people of refined taste, and its popularity is assured. It has an artistic modesty that adds much to its richness of effect. The "America" pattern is made in a complete line of forty pieces.



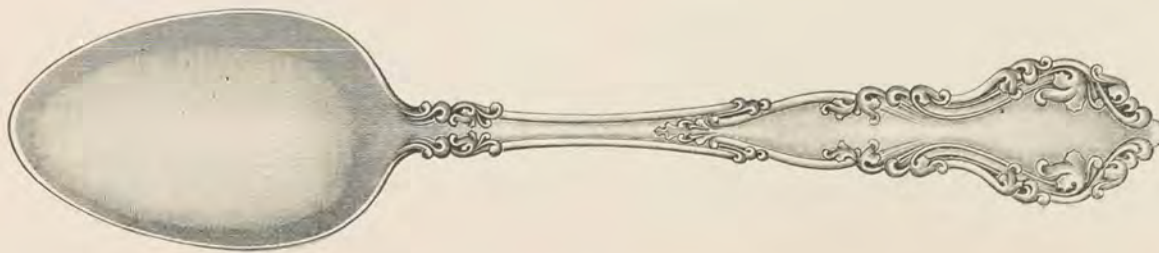
New Lens-Grinding Machine.



Our illustration shows a new automatic lens-grinding machine, known as the "Rex," for the edging of frameless lenses. This machine was invented and patented by H. E. Murdock, of Portland, Maine, and is sold by the Globe Optical Co., Boston. It grinds one or two lenses at a time, as desired, and it is claimed for it that it is a great labor saver and time economizer, and that its work is better than that done by hand by the average workman. It can be attached to any grindstone that is run by power. Those using the machines are said to be well pleased with them.

A Concealed Photo. Match Safe.

A sterling silver match safe, with a constructive peculiarity that should make it a rapid seller, is shown in our illustration. It is described as a concealed photo. safe, because on one side there is a concealed space in which a photograph may be placed. This space is covered by a lid, and when the lid is closed the two sides of the safe are exactly alike. The lid can be opened at will by a spring. It can be had with bright, satin, Egyptian or Roman finish, and is manufactured and sold by M. Sickles & Sons, Philadelphia, Pa., who are furnishing the trade with a large number of other quick-selling sterling silver novelties. As in past seasons there promises to be this season also a heavy demand for attractive sterling silver novelties, which are of the best paying portions of a jeweler's stock, especially nearing the holiday season. Of course as holiday gifts such goods are ideal, and a big sale for them is assured.



A New Spectacle.

We here show a new spectacle, named the "Aurocone," patented and manufactured by the Pacific Optical Co., Los Angeles, Cal. This spectacle, it is claimed, cannot hurt or bind the ears, relieves tension on the nose, and is held firmly in position without any discomfort whatever, obviating the pulling, drawing and painful strain of some of the

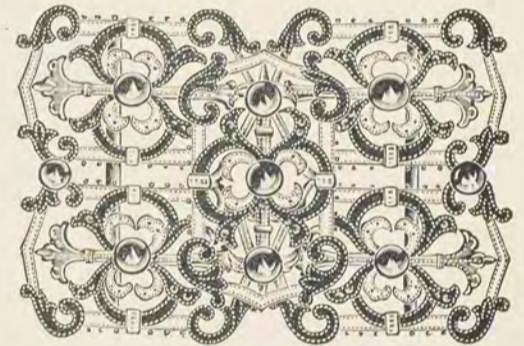


old style spectacles. The temples of the "Aurocone" do not come in contact with the ear and the cone-shaped retainer is not visible to one looking at the wearer. It is claimed that when once fitted the "Aurocone" is fitted for all time, as it cannot lengthen or shorten.

A New Sash Buckle.

A new silver sash buckle, of novel and attractive design, is shown in the accompanying illustration. The buckle is made by Codding & Heilborn Co., North Attleboro, Mass., and can be had in three styles—plain, gilt or oxidized, enameled, and enameled and set with stones. All the designs are very pretty, but there seems a special novel and showy attractiveness about the style with enamel and stones. This buckle is only one of many novelties that the Codding & Heilborn Co. have prepared for fall trade.

There is no lack of purse-opening novelties this season, and early acquaintance with them will benefit the trade.



Omaha Exposition Souvenir Spoon.

We take pleasure in showing here an illustration of the official souvenir spoon of the Omaha Exposition, the design and execution of which have been so universally eulogized and have reflected so much credit on the designers and makers, Geo. W. Ryan & Co., Omaha. The portrait on the end of the handle is that of a composite female head made



from forty-eight photographs, two of which, representing two of the prettiest young women in his State, were furnished by each of the governors of the twenty-four Trans-Mississippi States. The complete head is divinely beautiful, and the idea adds sentiment to the spoon. On the handle is the word "Omaha," and in the bowl is a well-executed engraving of a bird's-eye view of the Exposition, or of one or other of the buildings, with name. The die-work is very fine, and the spoon in its entirety is beyond criticism. The sales have been very large.

A New Flatware Pattern.

A new and beautiful pattern of silver-plated flatware is here illustrated. It is named the "New Century" and is made by Rogers & Bro., 16 Cortlandt Street, New York City. The design is artistic and chaste in conception, and the ware has the pretty finish characteristic of this concern. The handle is remarkably graceful in outline, and there is a harmony of ornamentation and form that will at once appeal to discriminating buyers. The "New Century" has qualities to make it a favorite with trade and public.

THE

WARWICK

685



Our New Pattern in
Sterling Silver.

These pieces are
now ready.



Simpson, Hall, Miller & Co.

Silversmiths

Wallingford, Conn., U. S. A.

*Manufacturers of Sterling Silver and Fine Electro-Plated Ware;
also Wm. Rogers Eagle Brand of Flat Ware.*

NEW YORK CITY—36 East Fourteenth Street, Union Square.

CHICAGO, ILL.—131-137 Wabash Avenue.

MONTREAL, CANADA—1794 Notre Dame Street.

Pittsburg and Vicinity.

The termination of hostilities in our last conflict has been hailed with joy among the jewelry and optical trades. The fall season practically began August 1st, and every one connected with the business is hard at work preparing for an anticipated exceptionally brisk fall and holiday season. All local travelers are out, and several firms told THE KEYSTONE representative that orders are already piling in. While the silver novelties are yet in season, the prediction is that high-class goods will be in great demand. Pittsburg is in a pretty flourishing condition just now and there are very few idle men loafing on street corners. Mills, foundries and factories are going full time, prices are firm and the weekly output of iron and iron products surpasses any record heretofore made in the history of iron manufacture in this city. In conjunction with the present prosperous condition of the iron market, the steady advance in the price of crude oil has stimulated business in the surrounding towns, and has created the demand for better and higher-priced goods. The oil men are lavish in the expenditure of money for fine stones and the local diamond men predict a boom in diamonds.

Otto Heeren, of Heeren Bros. & Co., returned from a six months' tour of Europe. While abroad Mr. Heeren was a contestant in an international shooting match held at Paris, in which were engaged officers from Germany, Austria, France and Italy, all crack marksmen. Mr. Heeren entered two days before the contest and was the only American. He won first prize, a gold medal, and the chagrin, envy and the hatred of the American caused a delay of three weeks in procuring for Mr. Heeren his well-earned prize, the officers in charge insisting that Mr. Heeren had entered too late. The greater part of his time was spent in Italy and Austria, near Venice and Vienna. The animosity of foreigners toward Americans and all things American was manifested everywhere.

W. J. Johnston & Co. have added two new clerks, James Powers and R. Bailey and a stenographer. They have added to their store furniture two handsome new mahogany floor cases mounted on marble bases. At present Mr. Johnston has opened his fall season by a trip through Maryland, West Virginia and the Southeast. Mr. Johnston anticipates a season fully as prosperous as that of '92.

Twenty prominent Germans of Pittsburg gave a contract to Heeren Bros. & Co., to furnish a wreath which will be placed on the grave of Prince Bismarck. The donors are all graduates of the German universities. The wreath is to be made of wrought iron, with beautifully chased oak leaves, and will be tied with a bow-knot of gold and silver. It will bear the inscription, "The Iron City to the Iron Chancellor."

Leopold Vilsack, of L. Vilsack & Co., went East to New York and the principal manufacturing cities of the East. Mr. Vilsack enjoys the distinction of having the most elegant window displays in the city during the past month.

In anticipation of the coming Triennial of the Knights Templar in October, the jewelers are already devoting much space in their windows to emblems, badges, etc., to the exclusion of diamonds and other attractive goods. The emblems, however, as a rule, are exquisite, and a K. T. pin will be more quickly recognizable by the public by this enlightening exhibit in the shop windows. One of the most interested in the coming conclave is Steele F. Roberts, locally and otherwise a leading Knight.

Samuel F. Sipe, diamond importer, and J. Harvey Wattles, arrived home last month from a European trip. Mr. Sipe brought home with him a large consignment of imported stones.

An unknown man went into the jewelry store of S. F. Stanley, 1702 Carson Street, S. S., to examine a \$100 diamond ring. While the proprietor had his back turned, he slipped the stone into his mouth, but was seen through his reflection in the show cases on the wall. When he saw that he had been unsuccessful, he spit the ring out and ran out of the store, making his escape.

A. M. Helm, Steubenville, Ohio, was in the city during the week of August 15th, making purchases before going on a camping tour to Yellowstone Creek.

John Brenner, of Youngstown, Ohio, was in the city during the same week completing his course in optics and making purchases for his optical department.

William E. Stieren, the Smithfield Street optician, accompanied by his family, spent his vacation at Cresson, Pa. Mr. Stieren recently added to his stock a complete line of Hind's patent glasses.

W. Warren Wattles was appointed on the committee to go to Buffalo to procure for this city the next annual convention of the Army of the Potomac.

The local jobbing houses have the following representatives on the road: James Brown, of George B. Barrett & Co., in Maryland and West Virginia; Joseph Buerkle, of Heeren Bros. & Co., to Northern Pennsylvania and Ohio; William Roseman, of Grafner Bros., to Maryland and West Virginia; Charles O'Brien, of W. J. Johnston & Co., to the North; Jack Allison, Goddard, Hill & Co., to Maryland, West Virginia and Ohio.

The following local jewelers spent their August vacations at different resorts: George White at Atlantic City; George Schairer at Bakerstown, Pa.; Charles Spandan, at Atlantic City; O. Graf, trout fishing in the Alleghenies; Otto Heineman, Atlantic City; Henry Barrett at Cheat River; E. C. Reineman at Lake Erie; L. DeRoy at New York; Miss Maud Beacom, Blanket Hill P. O., Pa.; Harry Mahler, Emerald Lake, Ohio.

John Pfaff, formerly of Queen & Co., Philadelphia, Pa., is now in the employ of the Rodney Pierce Optical Co.

The Rodney Pierce Optical Company report business in their line as keeping up to the highest mark. Mail orders are very satisfactory for this season of the year. Mr. Pierce looks for a boom in the fall.

H. Schwartz has opened a new store at Connellsville, Pa. This is Mr. Schwartz's initiation into business for himself.

Buchbinder & Schempf are closing out their line of telescopes, microscopes and field glasses, and will discontinue this branch entirely and will devote their entire time to optical goods and lenses.

W. B. Higgs, lately of Turtle Creek, Pa., opened a new store at 139 Penn Avenue, this city.

The two-and-a-half year old twin daughters of A. E. Siedle, of the East End, took first prize at the annual baby show held at Atlantic City during the week of August 15th. They polled 1072 votes, the nearest competitor having only 461 votes.

Heeren Bros. & Co. have the contract for furnishing 1000 medals for the Triennial Conclave, to be held in this city next month.

W. B. Carothers, of the late firm of Carothers & Reams, of Wilksburg, has opened a new store at Beaver, Pa. Mr. Reams continues at Wilksburg.

The contemplated increase in the navy will be another stimulus to the iron and steel industry here.

The following buyers were in the city during the past month: Adam Fisher, Greensburg, Pa.; Abe Leplitz, McKeesport, Pa.; Jacob Wolfe, Suterville, Pa.; M. McComb, Hope Church, Ohio; H. Zilliken, Wellsburg, W. Va.; Frank B. Hayes, Washington, Pa.; Henry Klemmer, Bridgeport, Ohio; Mrs. W. W. Mather, New Castle, Pa.; M. P. Boggs, Wellsburg, W. Va.; Mr. Merz, Sewickly, Pa.; W. B. Carothers, Beaver, Pa.; J. A. Cavanaugh, Johnstown, Pa.; John Brenner, Youngstown, Ohio; W. G. Spies, Steubenville, Ohio; Harvey Wallace, Smith's Ferry, Pa.; Charles Watson, Monongahela, Pa.; Wm. Hunt, Uniontown, Pa.; Geo. V. Brady, Washington Pa.; A. A. Poole, Washington, Pa.; H. Weylman, Kittanning, Pa.; Charles Kennerdell, Tarentum, Pa.; James McKean, Charleroi, Pa.

A Novel Business Card.

The cut shown is used on his business card by "Tario, the Jeweler," Pembroke, Ontario, a wide-awake member of the craft. On the back of the card he states: "The wheels revealed by the Roentgen rays in my cranium are the right kind for watchmaking purposes, and should impress the public with my natural aptitude and acquired skill at the art." Whatever may be said of other vocations, it seems all right for the jeweler to have "wheels in his head," mixed up, of course, with some ideas as to their use.

Novel Way of Collecting Debt.

Rather a good story is told of the way in which a saloon keeper in one of California's county sites managed to collect some bad bills. For the most part these bills were run up by the county officials, who knew that this man kept good whisky. They got into the habit of having drinks charged till they couldn't get out of it. At last the saloon keeper hit upon a plan which worked. He inserted the bills in the local paper and announced that in each issue he would insert one letter of each debtor's name unless they were paid. He did so, and before any of the names could be made out the bills were all paid.

Trials of a Country Jeweler.

ED. KEYSTONE.

AUGUST 6, 1898.

As typical of the trials of many of our country brethren, which make a vacation so desirable, I submit the following scene, which I will entitle

A BUSY DAY;

OR,
TRIALS OF A COUNTRY WATCHMAKER AND OPTICIAN.

Time, 10 A. M., and the jeweler is busily engaged in repairing a watch which he has promised to have ready by noon, as the party who owns it is going away.

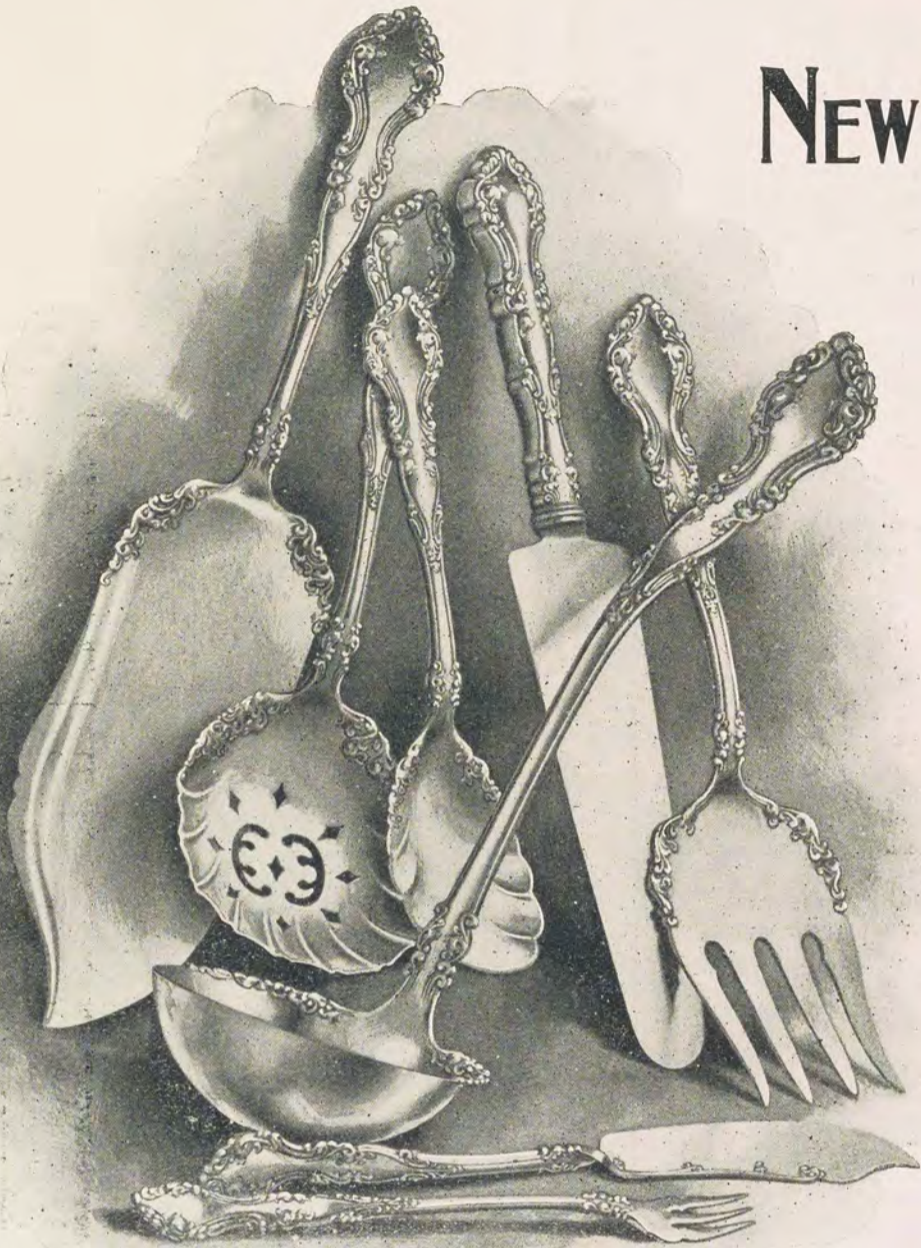
Enter Reuben Rubberneck, who informs the jeweler that he has heard of his skill in fitting specs and wants to get a good pair. Jeweler informs him he is very busy just at present, and that it requires considerable time to examine and test his vision. Asks if it would not be convenient for him to come in in the afternoon. Reuben tells him he lives fifty miles out in the country and must start for home after dinner, and that he comes to town only once in two months. With a good sale in prospect the jeweler suspends work on his watch and proceeds to examine and test Rube's eyes. After an hour's hard work he finds that his vision can be brought up to normal by compound astigmatic glasses, and Reuben can see clearly and distinctly for distance and close work. He informs him of the condition of his eyes and explains to him that the glasses will have to be made to order, and is finishing the writing of the prescription, when enters Silas Gimlet, a well-known bore and a neighbor of Rube's, who remarks, as he sees the trial frame on the latter's face, "Got a new neck yoke on, have ye?" "No, I am getting a new pair of specs."

Turning to the jeweler, "What be these going to cost me? Times be hard, so make it as cheap as you can." Jeweler names a price which is a very reasonable one, indeed, for this class of work. But Rube is simply paralyzed at the cost. Before he regains his speech his neighbor Silas informs him that he bought a splendid pair of spectacles that fit him to a T, for fifteen cents, at Cheap John's store, down street.

Without more ado, Rube picks up his hat and walks out, giving the jeweler a look that tells as plain as day that he regards him as a scoundrel who would take advantage of his (Rube's) confiding innocence to rob him. The jeweler has lost a customer and an hour of valuable time, and is in no pleasant frame of mind. However, he settles down to work on the watch, and thinks he may yet finish it in time, when an old friend, whom he has not seen for years, comes in. Of course, jeweler must be polite and exchange courtesies. By this time the hands of the clock are nearing twelve. He hopes the owner of the watch is delayed somewhere, so he can finish it. Vain hope! Party appears promptly and wants to know if his watch is ready. Jeweler informs him it is not, and endeavors to explain, telling him he will forward it by express, prepaid; all to no avail. The customer leaves in a towering rage, and the jeweler knows he has lost another patron, twenty-five cents for expressage and one-half day's time. JOB.



THE NEW CENTURY



ROGERS & BROTHER, OF WATERBURY, CONN.,

take pleasure in announcing the introduction of the "NEW CENTURY," feeling assured that the graceful beauty of the design, the excellence of the workmanship, together with the well-known high quality of the old and reliable

STAR ★ BRAND, ★ ROGERS & BRO., A. 1,

will favorably commend it to the trade. A full line of this pattern is now ready for delivery. The prices are the same as other similar patterns.

16 CORTLANDT ST., NEW YORK.

Providence and Attleboro.

The past month has been a waiting period in this section, a barely average between-seasons business being the rule with most of the manufacturers. The greater buying capability of the people, however, is recognized in the goods in preparation. The designs in jewelry lines are much superior and the quality of the stock better than for some seasons past.

B. E. Lovell, who did business at 227 Eddy Street, Providence, has entered into co-partnership with W. F. Herring, of Attleboro, who has been doing business under the firm name of W. F. Herring & Co. Mr. Lovell has removed his machinery and tools to Attleboro. The business will be continued under the firm name of W. F. Herring & Co., in the Robinson Building, No. 1, at Attleboro.

The Torrey Jewelry Company, of Attleboro, have remodeled and greatly improved their office.

P. H. Farrington & Co., Providence, have moved from 262 Westminster Street to 358 Westminster Street.

Julius Palmer and John S. Palmer, of Palmer & Capron, Providence, have been elected directors of the Equitable Fire and Marine Insurance Company.

John Austin, of John Austin & Son, was recently elected president of the High Street Bank of Providence, and Engelhart C. Ostby and Nathan B. Barton, of the Ostby & Barton Company, and William H. Waite, of the Waite-Thresher Company, were elected directors.

The firm of Gladding & Coombs Brothers, Providence, has been dissolved. The business is being continued by Oscar M. Coombs and Edgar L. Coombs under the same name.

Edwin Lowe is continuing the gold ring manufacturing business of W. E. Webster & Co., at 116 Chestnut Street, Providence, under the name of Edwin Lowe & Co.

Walter T. Mason, formerly a member of the firm of H. Wexel & Co., Attleboro, is now engaged in the grocery and provision business in Providence.

Daggett & Clap, Attleboro, are now well fixed in their new quarters recently vacated by the James E. Blake Co.

C. C. Darling & Co., 118 Richmond Street, Providence, will locate on the top floor of the new Fuller Building, corner of Sabin and West Exchange Streets.

Peter Nerney, of the Bay State Optical Co., is about to take unto himself a wife. The ceremony will take place in Brookline this month. We extend him congratulations in advance.

The new factory of T. I. Smith & Co. will be erected with all possible haste, and may be completed in November. It will be built on the four-acre lot adjoining the railroad on Washington Street.

Attleboro Falls has a new jewelry manufacturing concern, called the Standard Jewelry Co. Francis Connolly is the proprietor, and for the present the output of the company will be cuff buttons.

The jewelry manufacturing plant of Edward L. Dunn, Providence, has been purchased by George J. Smith & Co., jobbers, of New York, and placed in charge of Frank T. Higgins. They will make a general line of plated jewelry.

A. P. Workman, until recently an employee in the factory of B. K. Smith & Co., Providence, has started in business for himself at 185 Eddy Street, in the Fitzgerald Building. He will make a line of wire novelties, such as hats-pins, dress-pins, etc.

Roy & Minahan, manufacturers of chains and buttons, formerly on Richmond Street, Providence, have moved to the Fitzgerald Building, 53 Clifford Street, where they have additional machinery and employ more help.

Joseph Banigan, Providence, known as the "rubber king," and reputed one of the wealthiest men in Rhode Island, died July 28th. Besides the rubber industry he was interested in a large number of other manufacturing concerns in the State, and was president of the Howard Sterling Co. He reached the country in boyhood a penniless Irish immigrant, and his wealth at his death is estimated at from \$10,000,000 to \$20,000,000. Mr. Banigan was best known to the people of Rhode Island as a benefactor of mankind, and during his lifetime it is estimated that he gave away more than \$1,000,000, \$250,000 of which went to build the Home for the Aged at Pawtucket, and \$150,000 for the Working Girls' Home in Providence. His will bequeaths additional large sums to charity. When but a young man Mr. Banigan served an apprenticeship to the jewelry trade, and for several years worked as a journeyman in Providence and Attleboro.

Morale & Schutz, who recently began business at 43 Sabin Street, Providence, have adopted the name of The Acme Button Co.

Dutee Wilcox, of D. Wilcox & Co., Providence, is the assignee of the Flint Co., a retail furniture house, which failed last month.

J. M. Bates has purchased all of the land recently owned by Walter E. Hayward, of Attleboro, in the burned district.

W. H. Goff, Jr., shipper for C. M. Robbins and color bearer of the Fifth Massachusetts Regiment of Volunteer Militia, was recently presented with a wrist watch, revolver and equipments by Attleboro friends.

The reunion of the 47th Massachusetts Volunteers to be held in Boston on Labor Day will be attended by E. S. Horton, Emmons D. Guild, Ephraim Tappan and Charles Sandland, of Attleboro.

William C. Tappan, of the D. F. Briggs Co., Attleboro, has started on what he contemplates making one of his longest trips with a full line of samples.

Regnell, Bigney & Co., Attleboro, who have been located since the fire in the A. Bushee Building, expect to be in their new quarters in the Bates Building, now in process of construction by October 1st.

The employees of the Ostby & Barton Co., Providence, recently enjoyed a pleasant outing under the auspices of the Mutual Relief Association, formed by the employees of that establishment. Palm Garden was the place of rendezvous.

Goods Left for Repairs and Unclaimed.

WESTMINSTER, MD., August 16, 1898.

ED. KEYSTONE.

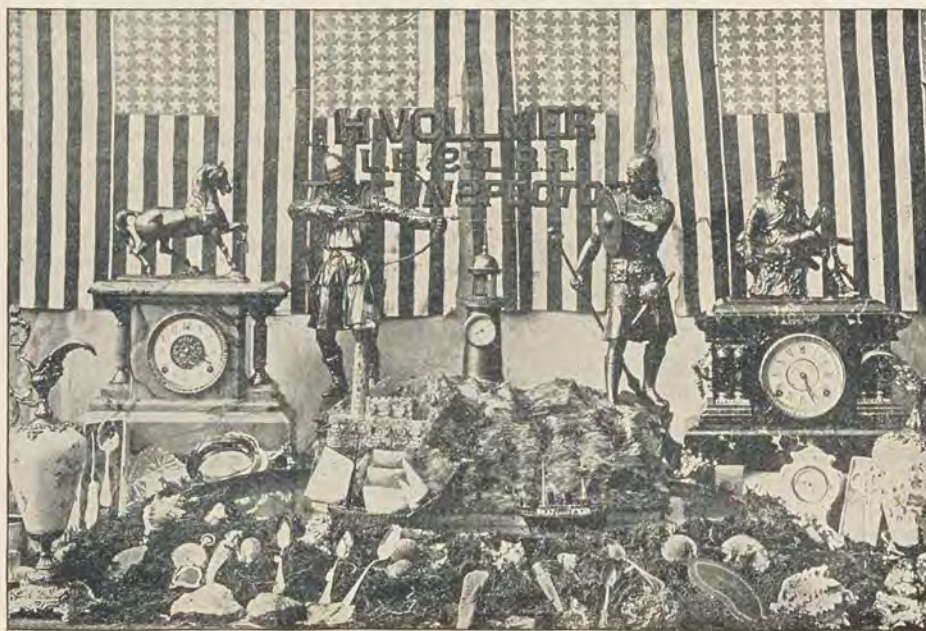
I would feel grateful for your answer to the following questions:

(1) What disposition can a watchmaker (or other mechanic) make of personal property such as watches, clocks, etc., that have been left on his hands for repairs and never called for. The only statute in this State, as far as I can learn, is that a mechanic has a lien on such property and can only hold it until it is paid for.

(2) If a watch repairer uses duplicate watch checks, printed on card board, with terms printed on back of duplicate, will not the owner of such article left for repairs become a party to the contract on back of duplicate check, and if he leaves such article on the repairer's hands more than sixty days may they not be sold?

Respectfully yours, TRUMP.

[In reply to the above we would say that the law on the point is unsatisfactory. Different States have different statutes, and on that account it has been our custom to advise our subscribers to consult a local lawyer before proceeding. We tender like advice to our Maryland correspondent. After a careful perusal of the statutes bearing on the subject in a number of States, we venture the follow-



Window Display of H. Vollmer, Princeton, Ind.

An Attractive Window Display.

Our illustration shows an attractive window display shown by Herman Vollmer, Princeton, Ind., and designed by his watchmaker, J. W. Hanser. It represents Havana Harbor and the famous Morro Castle. In the harbor two vessels are slowly cruising around the hill and Morro Castle, one a merchant sailing vessel and the other a miniature warship with conning tower, nine steel guns, anchor, boats, captain, etc. The vessels were propelled by a small electric motor. The whole propelling mechanism was hid from view, and the manner of propelling the boats was a subject of much discourse. The power was conveyed to the boats by means of a cable underneath the water, the cable being made of a chain which worked on rollers at each curve of the "canal."

Wierd-Looking Watches.

It is recorded that Mary, Queen of Scots, of tragic memory, had a great fancy for collecting curious watches. Among those owned by her was a coffin-shaped watch in a case of crystal. Probably the most remarkable one in her collection was the one which was bequeathed to Mary Seaton, her maid of honor. It was in the form of a skull. On the forehead of the skull was the symbol of death, the scythe and the hour-glass. At the back of the skull was time, and at the top of the head was the Garden of Eden and the Crucifixion. The watch was opened by reversing the skull. Inside was a representation of the Holy Family surrounded by angels, while the shepherds and their flocks were worshipping the newborn Christ. The works formed the brains, while the dial plate was the palate. She also possessed another skull-shaped watch, but it is not known what became of it.

ing by way of general answer: A jeweler would seem to have no other right, without a special contract conferring it, than just to retain the property until it is claimed and the proper charges are paid, unless he goes into a court of equity to foreclose the lien and have a judicial sale. But probably the courts would uphold a public sale made by the jeweler after he had held the property for a considerable time without this formality, if the owner's interests were sufficiently protected. Such protection requires that personal written notice be given to him, if possible, to take away his property, describing it, and pay the charges thereon, with notice of the time, place and manner of the intended sale should he not do so. In case he cannot be found upon diligent inquiry, notice should be sent to him through the post-office to his last known address and published in a local paper circulated in the county. The sale must be public, and due notice of it should be published. The proceeds may be applied to pay all legal charges and any balance should be held for the rightful claimant should he ever call for an accounting. This course is not very satisfactory for a jeweler who has a bill of only a few dollars. If the charges for unclaimed property are worth taking legal action on, the safe way is to consult a lawyer familiar with the statute in the State and be guided by his advice.

A strong State association of jewelers might secure the passage of a law providing for auction sales of such goods unclaimed for six months. Railroad and express companies have secured such a legal right to sell unclaimed baggage at the expiration of a fixed period.

With regard to the stipulation on the repair check that the article will be sold in sixty days if not called for we would say that such stipulation is not a contract until signed by the party, and is therefore not binding on him.—ED.]

AZURE TURQUOISES

DO NOT CHANGE COLOR



EVERY AZURE TURQUOISE IS GUARANTEED

and has this ○ trade mark engraved on the back. None genuine without the ring ○ on the reverse side.

Azure turquoises can be procured from any first-class dealer in gems.

If your dealer does not keep them, write to the AZURE MINING CO., 172 Broadway, New York, and they will tell you where to get them.

NATIVE DRILLING TURQUOISES.

The limited supply and great demand for fine turquoises would have placed these gems among the most costly of the precious stones were it not for the fact that turquoises have rarely retained their beautiful color. An experience of seven years has demonstrated that among the products of various turquoise mines, Persian, Egyptian and American, the stones of the Azure Mines have been unique. None of the "Azure" stones has changed color, and it is as safe for a jeweler to sell a turquoise from the Azure Mining Company as it would be to sell a ruby or an emerald. To protect the trade against fraud and to emphasize our "guarantee," we mark every "Azure" turquoise by engraving a ring or circle on the back of the stone. None is genuine without this ring, which is a trade-mark registered in the United States and Europe.

MADE AND GUARANTEED BY



"SILVER PLATE THAT WEARS."

MADE AND GUARANTEED BY



"1847 ROGERS BROS."

KNIVES, FORKS, SPOONS, ETC.

WHY THEY SELL

A well-known and well-earned reputation, gained by the making of only high-grade productions, backed by over fifty years of continuous manufacturing, together with liberal advertising, has made this brand the first in the minds of the people when they decide to buy.

While manufacturers of imitation "Rogers" goods, in their endeavor to reap a harvest by trading on the reputation made by the "1847" brand, have cut the cost of manufacturing as well as prices at which they are willing to sell their goods, the "1847" has been maintained at the same high standard of quality established over fifty years ago. It is most thoroughly advertised. The public interest in "1847" goods is never allowed to waver, but by constant advertising in high grade mediums, the name, styles and desirable features of this brand, coupled with the fact "Sold by leading dealers everywhere," are kept constantly before the public.

More dealers keep this brand of "Rogers" in stock, and advertise locally to sell it, than all others. It is the standard of quality. Other brands are claimed to be "just as good," but, like all imitations, they lack the value of the original and genuine.

Better prices are easily obtained for this brand as people willingly pay more for goods acknowledged to be the best that long experience, greatest skill, and newest machinery, combined with ample capital, can produce.

LOCAL ADVERTISING

If you handle "1847" goods you are entitled to help in your local advertising. Send for particulars.

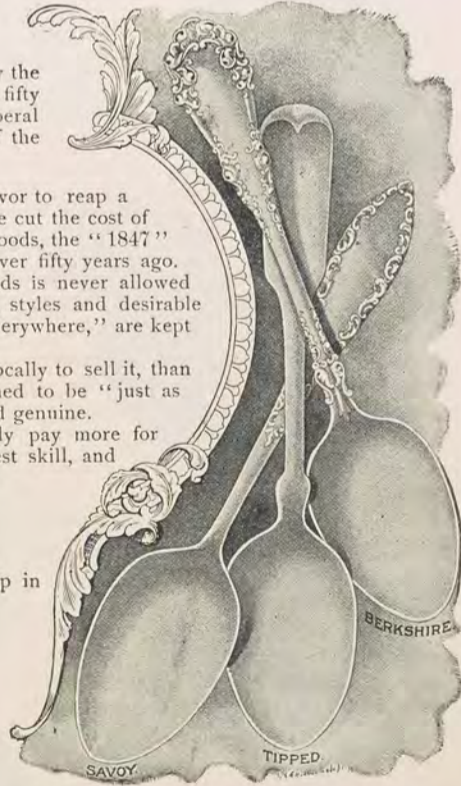
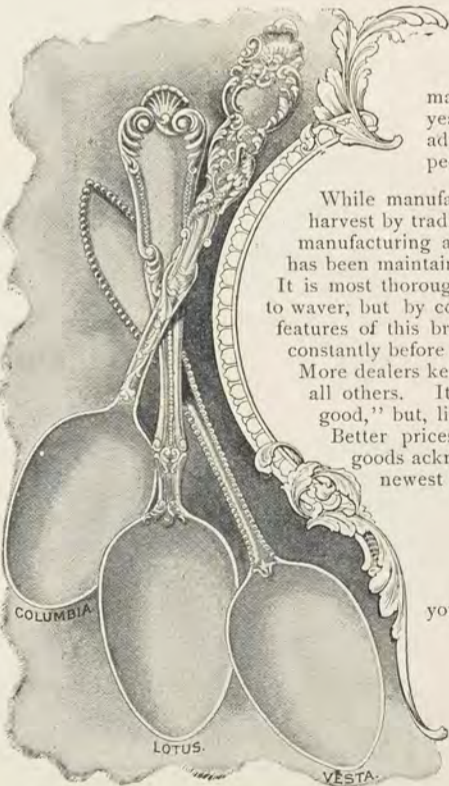
MERIDEN BRITANNIA CO.,
Meriden, Conn.

New York, 208 Fifth Ave.

Chicago, 147 State St.

San Francisco, 134 Sutter St.

Hamilton, Ont., Canada.



SOLD BY LEADING DEALERS EVERYWHERE.



Cincinnati Letter.

The merchants of Cincinnati are preparing an elaborate and hospitable greeting for the veterans who will be the city's guests during the G. A. R. encampment, September 5th to 10th inclusive. The work of decorating stores, public buildings and houses of all kinds has begun, and it is expected that the display will be beyond question the most gorgeous ever arranged in the city. A fund of \$75,000 has been subscribed by the citizens and business men to defray the expenses connected with the entertainment of the old soldiers. Chester Park will be converted into a city of tents, and not less than 10,000 veterans will camp there for five days. The wholesale houses will tender a cordial reception to visiting merchants, and every suitable feature of entertainment will be provided for the pleasure of the visitors.

The new addition to the factory of the Homan Silver Plate Co. is rapidly approaching completion. The company expects to occupy the new part some time during the present month.

Aaron Herman and L. Loeb, of the new wholesale firm of Herman & Loeb, have both returned from their early fall trips and report quite a satisfactory business.

Loring Andrews, of Loring Andrews & Co., retail, is expected to return from a European purchasing trip some time during the present month.

The wholesale houses here talk of taking some concerted action against the express companies in the matter of placing war revenue stamps on bills of lading and receipts. The matter has been brought to the attention of the district attorney, and he promised to institute proceedings on the first complaint.

F. D. Ausman, of St. Mary's, Ohio, was a buyer here recently.

R. H. Smith, of Hinton, W. Va., was in Cincinnati a few days last month on a purchasing trip.

F. A. Clough, of Mount Vernon, Ohio, was in this city recently on a business trip.

J. Wuersten, of Montpelier, Ind., was a trade caller here last month.

E. Graef, of Harrison, Ohio, was in the city last month, making some purchases for the home store.

The wedding of J. Bose, the faithful young book-keeper for several years past with E. & J. Swigart, is announced for September 14th. Mr. Bose is now the recipient of hearty congratulations of his friends upon the near approach of the event.

The Herman Keck Manufacturing Co. have moved their factory and office from 123 Fourth Street, into the Carlisle Building, at Fourth and Walnut Streets, where they now have one of the most complete diamond-cutting works in the country. This firm are anticipating a good business this fall; in fact, they are already doing a nice increase over last year's trade at this time.

Edward Albert, of Albert Brothers, jobbers, has just returned from a three weeks' outing, at Atlantic City, N. J. He was accompanied by his daughter. Mr. Albert visited the trade in New York and Philadelphia during his absence.

The long-talked-of new retail store of the Duhme Brothers, Herman and Frank, will open for business early in the present month, under the firm name of Duhme & Co., at 47 East Fourth Street, four doors from Walnut Street, on the South Side. The furnishings and stock of the new establishment will be entirely new, modern and in every way particularly high grade. The new store will be another addition to Cincinnati's long list of elegant and handsome retail jewelry establishments.

Two hundred thousand visitors are expected in Cincinnati during encampment week. Many jewelers over the country are G. A. R. men, and doubtless a large number of them will be on hand.

Joseph Jonas' Sons, manufacturers, have moved from the Lion Building, at Fifth and Elm Streets, to 411 Elm Street.

Michie Bros. have improved their store at 212 West Fourth Street by putting in a new, modern plate-glass front.

Among representatives of Eastern manufacturers calling on the trade here the past month were Fred R. Sheridan, of Horton, Angell & Co.; Geo. L. Paine, of E. I. Franklin & Co.; W. L. Dudley, of Rogers, Smith & Co.; W. J. Miller, of Seth Thomas Clock Co.; L. E. Smith, of M. B. Bryant & Co.; H. A. Bliss, of Kremenz & Co., and R. H. Harris, of the Ansonia Clock Co.

L. L. Fisher, of W. F. Fisher & Co., Chattanooga, Tenn., was a trade visitor here last month.

Neuhaus, Trounstein & Co. have been extensively engaged in the manufacture of badges the past month. Their souvenir badge for the thirty-second encampment of the Grand Army of the Republic, which convenes in this city this month, is a work of art, made from sterling silver in gilt and oxidized finish. This firm has also secured contracts for making the official badges for the conventions of the Daughters of Veterans, National Association of Union Ex-prisoners of War, and Women's Auxiliary to the National Association of Ex-prisoners of War. These organizations all meet in Cincinnati during the Grand Army of the Republic encampment, September 5th to 10th, and the badges required will be several hundred.

Herman Keck, Henry Fox and W. B. Michie have been appointed a committee to arouse interest in the grand civic and industrial parade of the Grand Army of the Republic encampment.

We have another new diamond-setting and manufacturing jewelry concern. The firm is Peck & Selineier, and they are located at 110 East Fourth Street. The two members of the firm have been connected with Fox Brothers & Co. for some time.

The Swigart Optical Co. is a new wholesale optical house at Toledo which has only recently opened up for business. The owners are the firm of E. & J. Swigart, of this city, and John Swigart, who has always lived at Toledo, is in charge of it. The new enterprise starts very encouragingly, and anyone who is at all acquainted with Swigart energy will have no doubt as to its final outcome.

A. J. Fuchs, of Chillicothe, Ohio, was in Cincinnati last month on a business trip.

G. J. Daum, of Augusta, Ky., was a welcome trade visitor here recently. Mr. Daum is an ardent admirer of THE KEYSTONE, and thinks it is the only trade journal for the jeweler.

The Queen City Silver Co. have sent out to the trade special invitations inviting all jewelers to make their headquarters at their office during the G. A. R. reunion week. In Manager Betts and Chief Salesman Jack, the jewelers will find two mighty pleasant gentlemen, who will make them feel at home immediately. None should miss a call at this establishment if they want to see a thoroughly new and modern silverware factory.

A. G. Schwab, of A. G. Schwab & Bro., is at his post again, after a most pleasant vacation spent at Hot Springs, Virginia.

A. H. Betts, manager of the Queen City Silver Co., is at his desk again, after a pleasant outing spent at Mackinaw.

Albert Bros. recently received five hundred boxes of clocks, which they claim is the largest single shipment of clocks ever received in Cincinnati.

The genial Jacob Dorst, whom everybody calls "Jake," for short, will receive his old-time customers and new friends during encampment week, in his well-known and hospitable style, at the office of Dorst & Co., in the Lion Building. He has prepared a warm reception for all who call, and he desires that his friends make his place their headquarters during their stay in the city.

G. W. Meyer, of Maridian, Miss., was a recent buyer in this market.

Jacob Dorst & Co. are making the Texas State medals for the Past Grand Commandery. The designs are pretty and appropriate.

Cincinnati has about finished her extensive preparations for the entertainment of the National Encampment of the Grand Army of the Republic, which convenes here September 5th to 10th. There is little doubt but what the jewelry industry will reap a material benefit.

Excellent Photograph of a Cyclone.

Jeweler Geo. W. Tallman, Lanark, Ill., has favored us with a photograph, taken by himself, and here reproduced, of the terrific cyclone that played havoc with his section on May 18th, destroying some three hundred homes. The photograph was taken at Mt. Morris, Ill., where the cyclone raged wildest. Lanark barely escaped the visitation. The photographs are so excellent that they are being eagerly purchased from Mr. Tallman as souvenirs. This enterprising jeweler deals in cameras and photographic supplies, and is himself a photographer of skill, as the above photograph fully proves. Many of the trade are handling similar side lines.



The American Horological Society.

The regular meeting of the Society was held in the Times-Herald Building, Chicago, on August 18th, President Strickler in the chair. The minutes of the previous meeting were read and approved. The auditing committee reported that they had examined the books of the treasurer and financial secretary, and found the same correct, and asked to be discharged. On motion duly seconded the report was accepted and committee discharged. The treasurer then read his report of the financial condition of the Society. The report showed that the finances of the Society were in a flourishing condition and that a fair surplus was on hand. The report was unanimously accepted and filed.

The following applications for membership were presented and the applicants unanimously elected to membership:

D. H. Wells, Waltham, Mass.; J. F. Phillips, West Lenox, Pa.; Lawrence McIntosh, Boone, Ia.; J. T. McCollister, Ooltewah, Tenn.; Carl J. Ricker, Emporia, Kan.; Norman W. Taylor, Peoria, Ill.; Jas. M. Curley, Waltham, Mass.; E. M. Bras., New Boston, Ill.; Edward H. Hehman, Chicago; H. F. Gruschow, Chicago; A. J. Youngdahl, Chicago; Oscar Jewels, Chicago; A. I. Felsenthal, Chicago; F. H. Baum, Chicago; William H. Shepner, Flint, Mich.; Chas. A. Daunt, Modesto, Cal.; O. K. Butler, Indianola, Iowa; T. B. Naik, Poona City, India; Orris Booth, Knox, Iowa; Geo. A. Fogas, Owensville, Ind.; M. Thomas Cook, Jellico, Tenn.; Frances Beaumont, Chicago; Augustus Huber, Chicago; George Shore, Shawnee, O., and Orville H. Pitney, Peoria, Ill.

Total, twenty-five new members. New members received during the fiscal year, from June 16, is sixty-six. This brings the total membership past the 200 mark.

Mr. J. H. Purdy gave notice of a proposed change in the constitution and by-laws. The change will be voted on at the September meeting.

Century Time-Keepers.

ED. KEYSTONE. WALDRON, ARK., August 17, 1898.

In your July number, page 560, I read an article under the caption "Century Time-Keepers." I have an old Verge watch, on the works of which is engraved "Beatson, London. No. 1710." This watch was my great-grandfather's. On the back is engraved, "W. M., 1793," initials of William Malone, who resided in Essex County, Virginia. My grandfather, George Malone, was nine years old at that date, and moved to Athens, Ala., in 1824. The watch passed down to the oldest son. My father got it in 1848, and in 1858 it passed to me. My oldest boy will heir it after. The watch is a good time-piece. If it has failed to run I never knew it. The watch has been under my personal observation for over fifty years. If you want the true time, call and it will tell.

Respectfully yours,

C. MALONE.

An Expensive Luxury.

Carrying old stock is one of the most expensive luxuries a merchant can indulge in. Money for discounting purposes is worth all the way from 2 to 5 per cent. a month, and the longer the money is invested in stock the more it costs to carry the goods. Money can be got at bank for 6 to 7 per cent, it is true, but it's not the privilege of all merchants to borrow money thus as they want it, and when money is borrowed to enable a merchant to carry perishable stuff, it becomes a very dangerous practice, akin to the man who sits on the limb of a tree and saws it off between himself and the trunk; very handy, but very foolish.

TO THE TRADE

At the opening of the Fall season the Gorham Mfg. Company desire to extend to the Retail Jewelry Trade an invitation to visit their salesrooms for the purpose of inspecting their new lines of samples especially prepared for this and the holiday seasons.

The works of the Gorham Company have been fully occupied for the past seven months in the preparation of these goods, which should command the attention of Jewelers throughout the United States. Among the articles presented will be many lines of extremely novel design, including popular priced goods as well as those of more ornate and costly character.

The various lines of goods have been greatly increased, owing to our belief that an unusual demand will be made upon us on account of the general improvement in business which is everywhere apparent.

Exhibits of our goods will be made at our New York salesrooms, Broadway and 19th Street, and 23 Maiden Lane; and to those of the Jewelry Trade who are unable to take advantage of the special inducements offered through the Merchants' Association to visit New York, similar and complete lines of goods will be presented at our salesrooms in Chicago, 131-137 Wabash Avenue, and in San Francisco, 118 and 120 Sutter Street.

We suggest the placing of orders as early as possible to insure the prompt delivery of goods when required.



NEW YORK, 23 Maiden Lane.

GORHAM MFG. CO.

Silversmiths,

Broadway and 19th Street, NEW YORK.

BRANCHES:

CHICAGO, 131-137 Wabash Avenue.

SAN FRANCISCO, 118-120 Sutter Street.

WORKS:

PROVIDENCE, R. I.



Jewel Box 196-Wv.

Beginning this year



on every article in the future.

WAVE CREST WARE

PATENTED OCTOBER 4, 1892.

Catalogue for 1898 now ready, illustrating a large and elegant line of goods for WEDDING and HOLIDAY TRADE that cannot be equaled in price, attractiveness and general character, comprising **Glove, Jewel and Handkerchief Boxes, Ash Trays, Cigar Sets, Vases, Bric-a-Brac, Novelties, Etc.**, suitable for gifts for either ladies or gentlemen.

Of new Catalogues we have only a limited number, therefore would advise if desiring one to write immediately for Catalogue 4. Reference from new customers when placing first order oftentimes saves delay.

The C. F. Monroe Co.

MANUFACTURERS OF

Wedding and Holiday Novelties,

Office and Factory,

MERIDEN, CONN.

New York Salesroom, 38 Murray St.



Jewel Box 241-Av.



Fernery 205-Iv.



Jewel Tray 237-Uv.



Puff Box 230-Av.



Ash Receiver 218-Wv.

Among the Trade.

The trade are invited to send us reliable items of news for this department.

Alabama.

Rosenstihl Bros., Birmingham, have erected a handsome street clock in front of their place of business.

Alston & Raiford, at Tuscaloosa, have been appointed inspectors of watches for the railroads centering there.

California.

A. A. Ritter has removed his store from the Occidental Hotel Block, on Montgomery Street, to 237 Kearny Street, San Francisco.

Tuckey & Kline, manufacturers, have moved from 126 Kearny Street, San Francisco, to 226 Sutter Street, where they have larger quarters.

Harry Bernheim, of Napa, has moved into better quarters.

Colorado.

S. C. Morgan has removed from Girard, Kan., to Longmont, this State.

Murchison Bros. have removed from Cloverdale, Cal., to Florence, this State.

A. L. Lackey, Denver, has sold his business to Oppenheim Brothers.

Dave Haken has moved his stock from Lincoln, Nebr., to Denver, this State.

Connecticut.

R. N. Johnquest & Co., of Ansonia, have opened another store at 938 Chapel Street, New Haven. Mr. Johnquest will superintend the management of both stores.

John A. Ferguson, Ferguson & Charboneau, of Norwich, has been appointed watch inspector for the New York, New Haven & Hartford Railroad.

F. A. Pickett, of Bethel, has moved into more attractive quarters in the Van Riper Building.

The city of Waterbury has just paid to Philip Silverthau, of S. Silverthau & Sons, of this city, \$125, which amount includes \$100 with interest for several years, which he paid to that city a short time after the law was passed by the Legislature compelling all itinerant merchants to pay a license to do business in each city of the State where they operated or conducted business. Mr. Silverthau, besides his business in New Haven, carried on, it appears, a personal trade in other towns, Waterbury among the number, which latter town collected the tax. He contested its legality in various courts, and finally won when the Supreme Court pronounced the law unconstitutional.

E. W. Button & Co., Bridgeport, have refitted and decorated their store.

Florida.

Joseph Crosby, of the Greenleaf and Crosby Co., Jacksonville, is now in the East and will probably leave for Europe about the middle of the present month for his annual tour of Germany and France. He expects to be absent about three months.

Greenleaf & Crosby, Jacksonville, have established a branch of their business in Fernandina.

Georgia.

S. K. Lidstone, of Athens, is now located in a new store at the corner of Broad and Thomas Streets.

R. A. Fincher, of Thomaston, is about to move into better quarters at the southeast corner of the Public Square.

H. A. Maier, of Maier & Berkele, of Atlanta, has been to New York, where he made extensive purchases of goods for fall trade.

E. S. Jernigan has opened a repair shop in Louisville.

H. Love, of Marietta, has opened a branch store in Adairsville.

Idaho.

W. Hendricks has opened a store in Hailey.

J. E. Miller has removed his stock from Idaho Falls to Blackfoot.

Illinois.

The wife of Jeweler Geo. O. Warren, of Sycamore, accompanied by their son, spent a part of August with relatives and friends at Warren, same State.

J. Beal & Son, of Rockford, have altered and rearranged their store, putting in new fittings and fixtures, enlarging the room, and brightening things up generally.

Theo. Schotte, formerly of New Madrid, Mo., has opened his new store in Metropole, this State.

Jeweler Tom Hollister, of Freeport, has of late been acquiring the habits of our friend Job, of ancient time, having been forced to endure one of his many afflictions. However, by the time this paragraph is read he will be free from the aforesaid affliction and enjoying an outing on his Iowa farm.

Frederick Pfaus, Jr., has succeeded Theodore Schotte, of Metropolis.

Ed. Hart has opened a repair shop in Mattoon.

Robert Bleuer, of Bleuer Brothers, Rock Island, sold his interest in the business to his partner.

E. B. Sherman, of Gray's Lake, has moved into a fine new store, recently erected for him.

During the past three months A. J. Reinhardt, the cash jeweler, of Lincoln, has been constantly adding improvements to his beautiful store, not to say anything of the great addition to his stock of fine jewelry, diamonds, etc. The room has been completely remodeled, papered and new fixtures for lights, etc., added with telling effect. Mr. Reinhardt has unusual advertising talent, and his liberal use of it accounts largely for his success.

Andrew Rovelstadt, of Elgin, returned last month from a summer spent at Powers' Lake. He looks well and shows that he enjoyed plenty of outdoor exercise.

Indiana.

The Laporte, Ind., *Herald* says: "E. C. Burrett, who is now employed in Cole's jewelry store in Michigan City, has just completed a piece of delicate engraving. On the elongated part of a gold pin, which is no larger than an ordinary pin, he has engraved the Lord's prayer in full. Instead of being round, the pin is hexagonal, thus affording an even surface to work on. The letters are very distinct and the inscription may be read with the naked eye."

H. S. Trent, Terre Haute, has moved from 816 Main Street to 118 South Fourth Street.

Iowa.

Cole & Connoran, of Indianola, have moved into a better store.

B. F. Humphrey has removed from Bonaparte to Centerville.

P. F. O'Connell, of Atlantic, is erecting a new building, into which he will move his business.

Charles C. Lewis, of Manchester, died recently. He was born in Albany County, N. Y., in 1830, and went to Manchester in 1855. A year later his brother, D. R. Lewis, also went to Manchester, and they were engaged in the jewelry business there since that time.

B. F. Hudson has bought out the jewelry business of Aborn Bros., at Sheffield.

Jeweler W. A. Swain, of Osage City, was taken ill before the holidays and his illness lasted until May. He is now caring for his business as of old, and says he is once more as good a man as he was thirty years ago.

Kansas.

C. L. Porter sold his store in Cedarvale, and has opened an entirely new stock in Moline.

L. G. Trower has succeeded to the business of W. E. Palmatier, Oberlin, who died recently.

F. W. Swearingen, of Topeka, has moved into better quarters at 614 Kansas Avenue.

A Peabody journal says: "J. W. A. Redhouse, a jeweler, who came here last year from St. Marys, bringing with him an undesirable reputation, has been engaged in the business here since until last week, when he left town, leaving many people regretting having transacted business with him."

E. Hoffman, Leavenworth, has remodeled his store and added new fixtures.

W. E. Fenstermacher, of Solomon, who recently sold his business to Spaulding Brothers, has bought a business block in Beloit, and will open a jewelry store in that city.

Kentucky.

T. M. Moon, Louisville, has remodeled and redecorated his store.

M. Herrick, Louisville, has moved from Nineteenth and Walnut Streets to 814 Twelfth Street.

The Louisville Board of Trade has undertaken to present to the battleship *Kentucky* a handsome silver service. It is calculated by the Board that the service will cost about \$10,000. In order to get the handsomest design possible, the Board will advertise for bids. Some of the big jewelers of Louisville are figuring on designs now. The battleship will be commissioned in March, and the service must be ready by that time.

(Continued on page 694.)



The Biltmore Style of Jas. Boss 14 K. Filled Case (25 Years)

Stylishness and a good shape go hand in hand. Without a perfect form style is impossible. Finery is, indeed, a failure on a faulty figure. So it is with watch cases. No ornamentation will make a case attractive that lacks grace of form and symmetry.

The Biltmore Style

is equally unique in form and finish. The shape is entirely new—thin, compact, dainty and peculiarly graceful in outline. Never has any particular style of case been so highly or so universally eulogized by the trade.



The Biltmore Style is ready as yet only in 16 size Elgin and Waltham, Htg. and O. F., and in O size Htg.—both these sizes in jointed only.

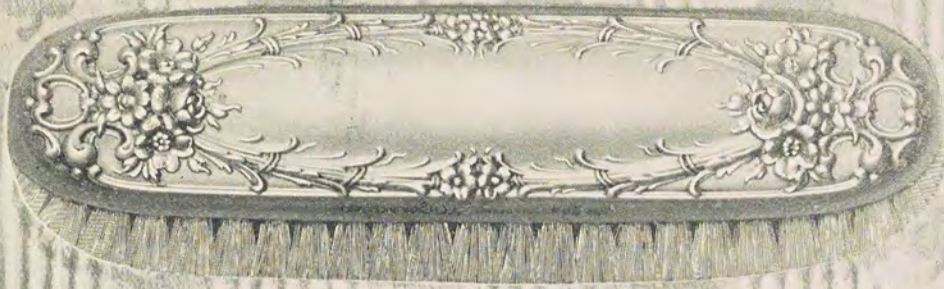


Htg., \$24.00 O. F., Jointed, \$21.00

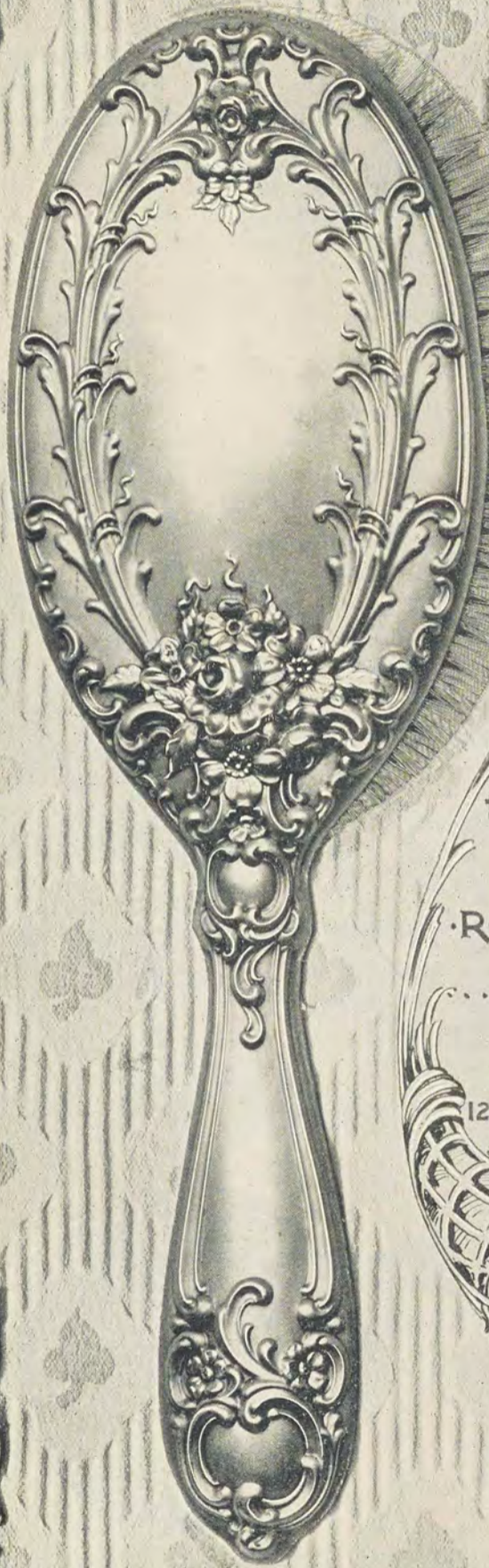
Prices according to Keystone Key.

These cases in above sizes are now in the hands of jobbers, and can be had with a large variety of patterns of engraving. The Biltmore style is specially attractive in plain polished and engine-turned.

Keystone Watch Case Co.,
19th & Brown Sts., Philadelphia, Pa.



HAT BRUSH



LARGE HAIR BRUSH

THE 1000

LINE OF TOILET WARE is now ready for delivery.

This line is made in a complete set of over FORTY pieces, including BRUSHES, MIRRORS, COMBS, PUFF BOXES, MANICURE PIECES, and the many other articles which are found in the category of

... TOILET WARE ...

R. WALLACE & SONS MFG. CO.
SILVERSMITHS

WALLINGFORD · · · CONN · · ·

226 FIFTH AVE · NEW YORK ·

109 WABASH AVE · CHICAGO ·

120 SUTTER ST. · SAN FRANCISCO ·



VELVET BRUSH



MILITARY BRUSH

Among the Trade.

(Continued from page 692.)

Maine.

G. N. Vinal, formerly a watchmaker of Portland, has entered the employ of the American Waltham Watch Co., Waltham, Mass.

George S. Burnell, of Gorham, has moved his business into more desirable quarters.

Massachusetts.

Davis & Smythe have succeeded George H. Quaid, 111 Monroe St., Lynn.

R. Wehl, for the past year with L. E. Higley, North Adams, will open a store at 5 Eagle Street, same city.

G. M. Wells has opened a repair shop in Beverly.

E. F. Welch, of Marlboro, has added photographic apparatus and supplies to his stock.

G. D. Campbell has begun business as a repairer in Bridgewater.

Davis & Smythe have succeeded George H. Quaid, retailer, of Lynn.

C. H. Bullock, for the past year with E. M. Dickinson, North Adams, has accepted a position with Clark & Tone, Middletown, Conn.

W. H. Schramm, North Adams, has accepted a position with L. E. Higley, of that city.

William F. Lincoln, Marblehead, has moved to a larger store, the removal being necessitated by increasing business.

Arthur D. Wilbur, of Rockland, has purchased the jewelry business conducted by the late Mr. Thompson, Weymouth.

Everett W. Durgin, of Worcester, has moved from 550 to 568 Main Street, where he has a larger store.

E. J. Dunphy has purchased the business of L. N. Vaughn, at 1045 Cambridge Street, Cambridge. Mr. Vaughn is studying optics in New York.

L. W. Weston, South Farmingham, has moved into new quarters.

The new factory of G. K. Webster & Co., North Attleboro, is nearing completion, and, it is expected, will soon be in operation.

Michigan.

George Shafter, 210 Woodward Ave., Detroit, will occupy the whole of the store now occupied by himself and another tenant.

H. Schwartz has opened a new store in Connellsville.

Richard Wells, a well-known jeweler of Vassar, died recently of heart disease.

Burglars entered W. H. Ricaby's jewelry store, in Belding, on August 7th, and secured booty to the value of \$500, consisting of watches, chains, gold pens, etc. The safe, containing about \$7000 worth of valuable jewelry, was not touched. Entrance was effected by boring through the casing underneath the display window.

J. Siegal, of Grand Rapids, who has been in the loan business for the past eight years, has given up this branch of the business, and is now conducting a first-class jewelry establishment. Mr. Siegal is well liked and deserves success in his new enterprise.

P. J. Koke, formerly with John Beekman, of Grand Rapids, lately started up for himself on Monroe Street, and reports that he is doing a nice business. Mr. Koke, although a young man in the business, has made many friends, who wish him the best of success.

A. Allen, Morenci, is spending a vacation at the resorts of Northern Michigan.

Ben. S. Cohen, with L. Black & Co., Detroit, with his family, spent a few weeks' vacation at Alginae.

J. A. Crossman has opened a jewelry store at Caledonia.

Gold & Wells have succeeded Gold & Galligan, Kalamazoo, in the drug and jewelry business.

Barstow & Van Duzer have succeeded E. R. Van Duzer, Ithaca.

A. F. Ragatz, of Vineland, Ill., and Alvin P. Kniebes, of South Coloma, this State, have formed a partnership to do a jewelry business at Coloma.

Henry Aldred, Alpena, has moved to 120 Chisholm street.

The Acme Mercantile Co., of Detroit, have filed articles of association. The capital is \$10,000, of which \$1000 is paid in, and the company's business is to buy and sell at wholesale and retail diamonds, watches, bicycles, etc. The incorporators are T. D. Gorsline, J. F. Plimly, H. Hodges, H. L. Winckler, J. J. Jacklin, William Strohschein and W. R. Pitkin.

Minnesota.

A. E. Paegel, of Minneapolis, has added to his business a cut-glassware department.

Robt. Reed, of Reed-Bennett Co., and George Rentz, of Rentz-Bros, Minneapolis, were nominated as members of the Minneapolis Park Board on the Democratic ticket.

Benson & Benson have purchased the business of S. J. Darkes, Glenwood, and will continue the same.

John Frisch, of St. Charles, has been succeeded by Frisch & Co.

H. B. Tuttle & Son, of Little Falls, have been succeeded by J. M. Tuttle.

A. E. Paegel, of Minneapolis, has added a line of cut glass to his stock.

Jeweler Crandall, of Le Roy, has sold out his jewelry business.

John R. Gordon, of Houston, has opened up a branch store at Hokah.

Jeweler Tomeraasen, of Caledonia, is building a new residence.

The firm of Cutting & Wilson, Winona, has been succeeded by John T. Wilson.

Missouri.

Carl Phillips, formerly of Poplar Bluff, has moved to a store at 6400 Michigan Avenue, St. Louis.

George Porth, Jefferson City, who, for over fourteen years occupied the store room, No. 210 East High Street, has moved into his own three-story building, No. 110 East High Street, which he recently purchased. His new quarters give him a store room 19 x 60 feet.

Jeweler C. S. Poole, of Joplin, is a popular citizen as well as a successful jeweler and seems to be in demand on every occasion of public interest. He is vice-president of the Joplin Club, and is a member of the Board of Education.

New Hampshire.

P. H. Nefflen, Portsmouth, has removed from the Hiliary House to Piedmont Street.

Mervin E. Banks has purchased the business of M. W. Kimball, of Lancaster.

James D. Chapin, formerly a watchmaker of Manchester, has entered the employ of the American Waltham Watch Co., Waltham, Mass.

New Jersey.

J. A. James, jeweler, of Merchantville, has moved back to his old home in Swedesboro.

A. W. Cornelius, the Asbury Park jeweler, has recently moved into a new building a few doors above his old location. The new store is 25 x 75 feet, and one of the finest store rooms in the city. The side walls are finished in quiet tints, while the ceiling presents a handsome appearance, covered, as it is, with the new ornamental designs in metal. The fixtures of the store are mahogany and entirely new, as are two long show cases running from the front to the rear of the store. The extreme rear of the store is partitioned off into two rooms; one being used as a work room and the other as a dark room for optical examinations. The distance tests of the optical work is done immediately in front of the dark room, as the width of the store allows a distance of twenty feet for this purpose. Provision is made in the centre of the store for a display of art goods, which is dealt in quite extensively. The front of the store room is provided with two large show windows of great depth, which allows a fine window display. As fitted out, Mr. Cornelius has one of the finest jewelry stores in northern New Jersey.

R. G. Porter, formerly in business on Broad Street, Woodbury, and who recently went to Colorado with a view to starting in business there, has returned to Woodbury and opened a jewelry store on Cooper Street.

The Perfection Music Box Co., of Jersey City, has incorporated with a capital of \$100,000, to manufacture music boxes and other mechanical musical instruments.

New York.

John Bong, Corning, has leased the whole lower front of the Democrat Building.

A. H. Rose, Auburn, has moved from 40 State Street to 140 Genesee Street, Columbus Block.

D. Valentine & Co., jewelers, and P. F. Valentine, optician, Dunkirk, have closed out their stocks of goods at auction. The store will be occupied by John A. Stapf, jeweler.

A. E. Ayers, of Lowville, has equipped his store with an acetylene gas lighting plant.

(Continued on page 696.)



A 9314
Edge View

The Blenheim Style of Jas. Boss 14 K. Filled Case (25 Years)

Tastes may be equally refined, yet very different. This is what makes a variety even of the richest styles necessary. What has been said of the Biltmore style of Boss Case, on page 692, is equally true of the Blenheim, both as to unique beauty of shape and elegance of finish.

Make special note of the edge view. It shows an entirely new development in watch case formation—readily noticeable not merely to the discriminating eye of the jeweler, but his customers as well. The beaded effect is very beautiful.



A 9840
Htg., \$22.00
O. F., Jointed, \$20.00

The Blenheim Style is made in all sizes, Htg. and O. F., but, as yet, in jointed only.



A 9400
Htg., \$24.00 O. F., Jointed, \$21.00

Prices according to Keystone Key.

The Blenheim Style is specially attractive in plain polished and engine-turned. There is the usual variety of patterns of engraving.

Keystone Watch Case Co.,
19th & Brown Sts., Philadelphia, Pa.

When you
order a selection of

Diamonds

in loose or mounted goods, send to
Bauman-Massa Jewelry Co.
Commercial Building
St. Louis

DOESN'T IT STRIKE YOU

THAT THIS IS THE HANDSOMEST THING
YOU'VE SEEN IN THE TOILET WARE
LINE?—WE HAVE IT IN MANICURE
PIECES, TOO—A FULL LINE.

'TIS THE



KEEP IN MIND THAT
WE ARE THE GOLD
AND SILVER
THIMBLE MAKERS
OF AMERICA



Design Patented.

SIMONS, BRO. & CO.

SILVERSMITHS
THIMBLE MAKERS AND
MANUFACTURING JEWELERS

616 CHESTNUT ST., PHILADELPHIA

NEW YORK
19 MAIDEN LANE
41 UNION SQUARE

CHICAGO
402 COLUMBUS
BUILDING

286 W MIRROR (LIKE CUT) 9 INCHES
999 W " RING HANDLE

Among the Trade.

(Continued from page 694.)

New York.

Chas. L. Haupt, Williamsville, died recently. The deceased was long engaged in the jewelry business in the village, and had been postmaster and clerk of the board of education and board of trustees, and held other offices of trust.

H. E. Carner has purchased the business of F. A. Russell, of Frankfort.

W. R. LaRue, who has been connected with the C. D. Peacock jewelry establishment, of Chicago, for the past ten years, after paying a flying visit to New York City, spent his vacation with his parents at Dansville, in the heart of the famous Genesee Valley.

H. P. Gray, of De Ruyter, has moved into better quarters.

The Hudson *Register* has the following to say of Jeweler Lewis Maratsky, of that place: "There is a jeweler on Warren Street who is up-to-date in every particular. There is nothing of local or of national importance that he does not in some way manage to utilize for advertising his extensive business. In the show window of this jeweler's store there is at present displayed a very unique design telling Hudsonians about 'Dewey Watches.' The word 'Dewey' is composed of a fine lot of watches arranged to form the letters, while the word 'watches' is formed by elegant gold chains."

C. C. Beverly, of Fort Edward, has moved into better quarters.

E. J. Swezey, Goshen, has improved the interior of his store.

G. C. Beverly, Fort Edward, will soon move his jewelry business into another store.

North Carolina.

J. W. McCulloh has begun business as a repairer in Lexington.

North Dakota.

The drug and jewelry firm of Wittmar & Derby, Hamilton, sold out their stock of drugs and will hereafter limit their attention to the jewelry business.

Herman Backer & Co. have removed from Mayville to Portland.

E. P. Sundberg, of Fargo, has been East buying goods.

Ohio.

A. Vernon has purchased the business of C. M. Wagner, of Pleasantville.

R. D. Macdonald, of Magdonald & Co., Lima, took advantage of the business men's low-rate excursions to visit the Eastern cities. During his stay in Philadelphia he was a welcome visitor at THE KEYSTONE office. While East he made extensive purchases for fall trade, and, besides, recreated for some days at the seaside resorts.

Arthur Nelson, a son of Robert Nelson, jeweler, of Akron, who was a private in Company B, of the Eighth Regiment of Ohio Volunteers, died at Santiago de Cuba. The young patriot was only in his nineteenth year.

Wm. H. Broer, of B. H. Broer & Son, Toledo, spent several days in Detroit, Mich., as the guest of Carl Wagner, with L. Black & Co.

Peter Ulberg has begun business as a repairer in Wagner.

C. M. Wagner, of Pleasantville, who recently sold his business, has moved to Newark.

Benjamin Mosely, of Farmington, has moved into a larger store.

The ninth free fair will be held in Galeon on September 1st and 2nd. C. W. Bechtol, of the jewelry firm of Kesselmeier & Bechtol, is president of the fair.

Louis A. Austin, of Granville, has been appointed postmaster of that place. The salary is \$1500 a year.

Oregon.

George W. Smith, Astoria, has been appointed administrator of the estate of his deceased father, which is valued at about \$12,000.

Charles H. Hinges, Salem, has leased a new store room at 294 Commercial Street and will fit it up in elegant style. It will have a well-equipped optical department.

M. I. Parham has closed out his stock of jewelry in Astoria.

Pennsylvania.

L. Phillips, Hawley, has made extensive alterations and improvements in his store.

M. Sanes, formerly watchmaker at M. S. Neiman's jewelry store, McKeesport, has engaged in business for himself at Braddock.

C. P. McClure, of Newport, has installed an electric light plant in his store.

A. S. Felker, of Steelton, has greatly improved his store.

Claude B. Guthrie has opened a repair shop in Millerton.

Simon Donner, Greenville, has disposed of his interest in the jewelry store to G. W. Hewitt. Mr. Hewitt is the oldest jeweler in town, and hosts of friends will be pleased to learn that he has again engaged in business for himself.

A. E. Barrett has started in business at Irvona.

W. P. Merrill has succeeded J. C. Malone, Kane.

J. D. Pierce, of Steelton, has installed water power in his watch and bicycle repair shop.

Henry Herbine has opened a store in New Hope.

A. S. Felker, Steelton, has greatly improved his store.

Harry I. Kistler, of Allentown, is spending his vacation at Asbury Park, N. J.

South Carolina.

Mrs. Margaret Rosenthal, jeweler and optician, Charleston, has sold out to Beatrice Rosenthal.

J. K. Young, of Union, recently put an elegant new front in his store.

The City Council of Columbia contemplates the purchase of a tower clock for the City Hall Building.

South Dakota.

E. F. Harrington & Co., have moved from Sioux Falls to Sheldon.

Tennessee.

R. S. Harless, Sweetwater, who has been doing business there for thirty years, has sold out to L. Carson and A. Glenn, of Morristown.

Texas.

Silberberg Bros., El Paso, have sold their business in that city to Bruck & O'Connor, and will locate in the City of Mexico, Mexico.

S. H. Babb has opened a store in Winsboro.

Mrs. M. V. Hunter has purchased the business of Annie M. Threadgill, of Palestine.

Dyer & Jones, druggists and jewelers, Whitewright, have moved into a new store handsomely fitted up with quarter-sawed oak fixtures, pretty wall cases for silverware, and also pretty new cases for jewelry, making one of the handsomest stores in their section. Their watchmaker, Mr. Younge, is a skillful workman of fifteen years' experience and also a competent optician.

Washington.

L. L. Talcott, Olympia, father of the three members of the jewelry firm of Talcott Bros., died recently. The deceased belonged to an old Eastern family. His father, George Talcott, was a native of Hartford, Connecticut, and his ancestor, John Talcott, built the first house in that populous and wealthy city, with whose early history he was prominently connected. Lucius L. Talcott led an eventful commercial career, and was prominent in the far West in the pioneer period.

M. A. Goldman, formerly of Bakersfield, Cal., will open a jewelry store at Walla Walla.

Frank C. Hart, Tacoma, has moved into new quarters at 1106 Pacific Avenue, where he has one of the best lighted stores in the city.

West Virginia.

John W. Mather has moved to 611 Market Street, Parkersburg.

William Debolt has opened a jewelry store at New Martinsville.

J. B. Barger, of Benwood, has moved into larger quarters.

Wisconsin.

A. H. Furstnow & Co., have purchased the jewelry stock of P. E. Pope, at Fon-du-Lac.

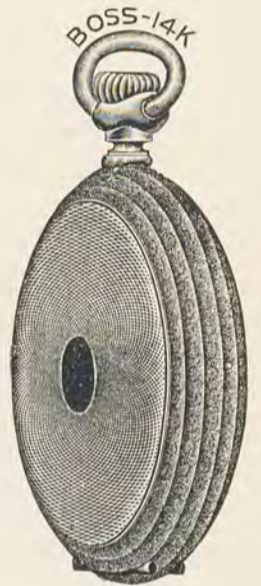
William Hellfach has opened a jewelry store at La Crosse.



The Cliveden Style of Jas. Boss 14 K. Filled Case (25 Years)

The trade tell us that many customers prefer this style to either the Biltmore (see page 692) or the Blenheim (see page 694). We anticipated so much, and are gratified accordingly. As a seller it promises to equal either of the other styles.

The edge ornamentation is remarkable for its rich effect, and contrasts with other cases most favorably. Over-ornamentation is studiously avoided in all the new styles in view of a growing refinement of public taste in the matter of watch cases.



A 9481
Htg., \$22.00
O. F., Jointed, \$20.00

The Cliveden Style can be had as yet only in 16 size, Elgin and Waltham, Htg. and O. F., and in jointed only.

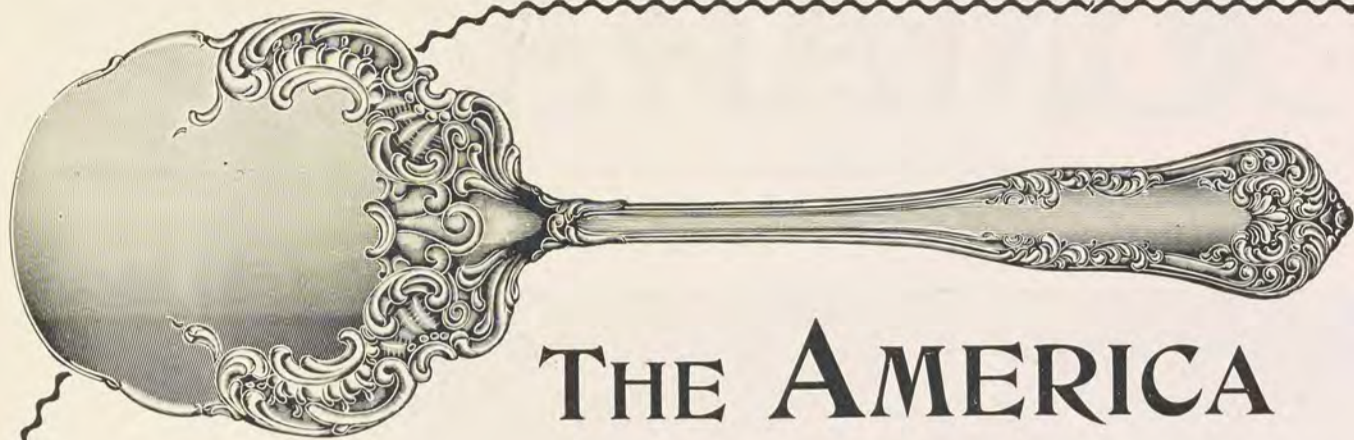


A 9506
Htg., \$24.00 O. F., Jointed, \$21.00

Prices according to Keystone Key.

The Cliveden Style is strikingly effective in plain polished and engine-turned. A large number of patterns of engraving to select from.

Keystone Watch Case Co.,
19th & Brown Sts., Philadelphia, Pa.



THE AMERICA

OUR LATEST DESIGN,
READY FOR YOUR ORDER.

It is sure to be a favorite. We have produced it in a complete line of over Forty Pieces. It strengthens the reputation of



Factories:

Hartford, Conn.
Wallingford, Conn.
Norwich, Conn.
Taunton, Mass.

New York Office:

149 Church Street.

Philadelphia Office:

506 Commerce Street.

WM. ROGERS
MFG. CO.

HARTFORD, CONN.

MADE ONLY BY US

SPECIAL DESIGNS

I take pleasure in announcing that, besides the regular lines, I shall carry the products of the following well-known manufacturers, and also will have exclusive control of **MANY SPECIAL DESIGNS.**

WATCHES AND WATCH MOVEMENTS:

American Waltham Watch Co.,
Elgin National Watch Co.,
New England Watch Co. (Special Agent).

WATCH CASES:

Crescent Watch Case Co.,
Courvoisier-Wilcox Manufacturing Co.
Keystone Watch Case Co.,
Fahys Watch Case Co.,
Brooklyn Watch Case Co.,
Wadsworth Watch Case Co.

CLOCKS:

Ansonia Clock Co.,
Seth Thomas Clock Co.,
E. N. Welch Manufacturing Co.,
Parker Clock Co.,
E. Ingraham Co.

SILVER NOVELTIES:

The best productions of the leading manufacturers will be represented.

OPTICAL GOODS:

American Optical Co.,
Bay State Optical Co.

CHAINS:

W. & S. Blackinton,
R. F. Simmons & Co.

MUSICAL BOXES:

Olympia; prices ranging from \$10 to \$90.

SILVER PLATED WARE:

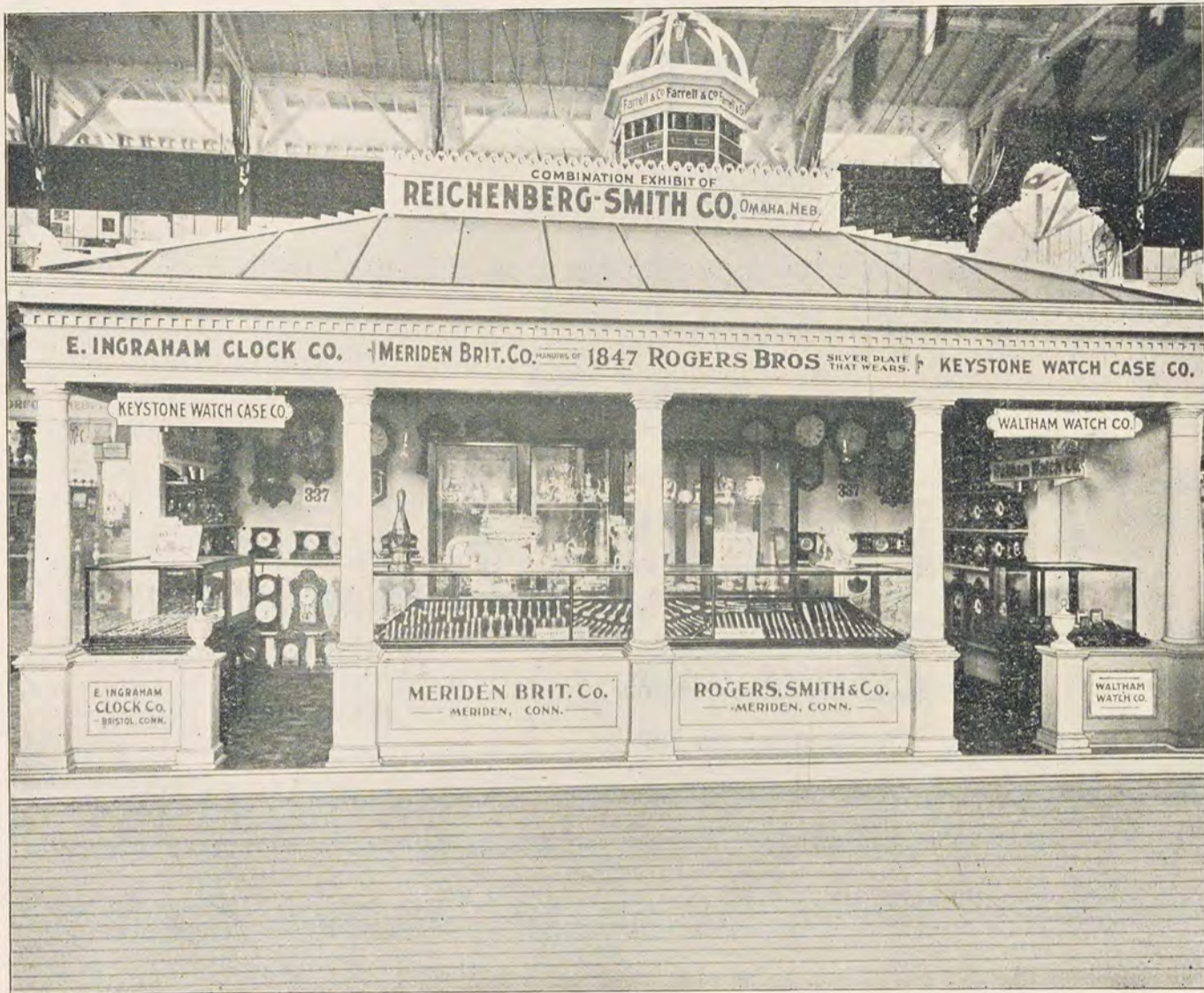
Rogers, Smith & Co., 1847 Flatware and Hollow-ware.

In addition the following lines will be extensively represented: Art Goods, Cut Glass, Pottery, Bronzes, Gold Pens, Bric-a-Brac, Precious and Imitation Stones, Canes and Umbrellas, and the latest styles of Diamond, Gold and Silver Jewelry. In Art Goods the lines are too extensive to enumerate. A visit to New Orleans will more than compensate you, by placing at your disposal the carefully selected productions of over three hundred manufacturers.

LEONARD KROWER

Importing AND Manufacturing Jeweler
122 Chartres Street, New Orleans, La.

OMAHA



All Jewelers,
everybody connected with
The Jewelry Trade
and all
their friends,
are cordially
invited
to make
"The Combination Exhibit"
at the
Omaha Exposition
their
Headquarters,
While there
REST,
write letters,
enjoy yourselves.
All
will be
most cordially
Welcome.

THE REICHENBERG-SMITH COMPANY

in their combination display are exhibiting the products of the

MERIDEN BRITANNIA CO., MERIDEN, CONN.

E. INGRAHAM CLOCK CO., BRISTOL, CONN.

AMERICAN WALTHAM WATCH CO., WALTHAM, MASS.

KEYSTONE WATCH CASE COMPANY, PHILADELPHIA, PA.

ROGERS, SMITH & CO., MERIDEN, CONN.

Exhibit in charge of

THE REICHENBERG-SMITH CO.
NEBRASKA'S LEADING WHOLESALE JEWELRY FIRM
OMAHA

EXPOSITION

699

Everybody and everything in Omaha is proud of her big Exposition, which was opened to the world June 1st. Thirty-six States of the Union are represented, and no less than twelve are housed in buildings of their own. It has already proved a great show and a great success, and will prove grander with each week from now until its close, November 1st. Omaha expects to entertain 2,000,000 strangers in September and October. The jewelry and kindred trades will doubtless be well represented among this vast throng. A most cordial and hearty invitation is extended to all Jewelers and everybody connected with the Jewelry and kindred trades to make the Combination Exhibit Booth their headquarters while at the Fair. They will find it near the center of the Manufacturers' Building with ample facilities for their comfort as well as congenial people to make them feel at home.

Exhibit No. 337

Manufacturers' Building
Near the Center
Facing the
Lagoon Door





GRAND CANAL, LOOKING WEST, TRANS-MISSISSIPPI AND INTERNATIONAL EXPOSITION.

Omaha Letter.



UGUST has been phenomenal. Likewise was July. The attendance at the Exposition during the past month was the largest since the opening, and much money is being left among our merchants. The railroads, by their shortsightedness in not making decent rates, are keeping many away, and at the same time keeping their own earnings down when they might be "way up."

Many compliments have been showered upon the Exposition for the marvelous beauty of the architecture of the buildings, both in detail and assembly; but to him who has failed to view the scene under the rays of the electric lights, its chief beauties have been lost. The view down the stretch of the lagoon, toward the Government Building, is surpassingly beautiful, but there are vantage points from which much finer views are to be obtained. The best of these, perhaps, is from the river near Florence Lake. In order to get this perspective, a trip on the steamer is necessary, and every one should take it at least once during the continuance of the Exposition, in order to gain a sight that will ever afterwards be remembered as almost a preliminary glimpse of paradise. Words fail to adequately describe the vision that bursts upon the voyager just before the limit of the steamer's nightly trip is reached. The view is slightly from the east of north, and every detail of the buildings is revealed in lines of golden light. From the cornice of the Horticultural Building to the noble outlines of the Government dome, every line is continuous. The Exposition, as a whole, seems projected against the dark background of the sky, and becomes a vision of a dream. The sight is beyond expression beautiful, and holds the observer as with a spell, and so unsubstantial does it seem that one expects it to fade away even while he gazes.

The drouth was effectually broken by more or less generous rains which fell, up to the middle of August, pretty generally over the territory tributary to Omaha. There was at no time cause for apprehension that some of the faint-hearted ones affected to entertain. Nebraska's great and glorious harvest is now entirely assured.

The combination exhibit of the Reichenberg-Smith Co., in the Manufacturers' Building, is a most creditable showing, and is highly complimented on all sides. They exhibit, among others, a fine display of the products of the Meriden Britannia Co., of Meriden, Conn.; the American Waltham Watch Co., Waltham, Mass.; the Keystone Watch Case Co., Philadelphia, Pa.; the E. Ingraham Clock Co., of Bristol, Conn., and Rogers, Smith & Co., of Meriden, Conn. The Meriden Co. and Rogers, Smith & Co. have made up some special goods for the occasion, among which is a complete gold tea-set, some very large punch bowls and expensive prize cups. They also show a complete line of their "1847" goods. The Waltham Watch Co. exhibit a line of their high-grade watches; also parts of their watches, such as jewels and other materials used in the construction of the Waltham watch. The Keystone Watch Case Co. have an exhibit of about two hundred gold and filled watch cases, about forty of which were made up specially for this exhibit, showing the different buildings of the Exposition, Western scenery, mines, etc. These goods are the Jas. Boss gold filled cases, made with gold ornamentation. The E. Ingraham Co. have a very complete exhibit of their colored enamel and wooden clocks. Their goods show up some beautiful color effects and are attracting considerable attention. The Keystone Watch Case Co. are giving away case openers, which are a capital advertisement for the Jas. Boss filled cases. They also give out an Exposition booklet, a valuable little hand-book for the wearer on the uses and care of watches and cases. The Meriden Britannia Co. also issue extensive advertising matter. The exhibit attracts a crowd at all times.

Geo. Kuehl, of Chicago, has a fine display of Cuckoo and Wachtel clocks in the Liberal Arts Building, which constantly attracts crowds. It is a unique exhibit and seems to catch the people wonderfully.

There has been an unusual number of Western jewelers in attendance at the Exposition during August, and there are more of them expected the present month.

Omaha's jobbers in all lines are enjoying a present trade that is unanimously declared to be in excess of that ever experienced at this season of the year. Assuming that this country has resumed normal business conditions, the inevitable inference is that the ledger pages must be ruled with another column to accommodate the additional figures necessary to record the increased business transactions.

Chicago Day at the Exposition is put down for October 1st.

In the list of days of particular importance for the month of September at the Trans-Mississippi Exposition, the 24th is put down as Commercial Travelers' Day. Iowa Days are the 20th and 21st; the 6th is Colorado Day; the 15th, New England Day; the 1st as Kansas Day.

All the commercial bodies of Kansas City turned out in full force and attended the Omaha Exposition on Saturday, August 6th, which was set aside by the management as Kansas City Day, and a great many of the business men who were unable to make a prolonged stay in Omaha on account of the press of business, took occasion to spend a few days at the "show" while rates were low.

Richard O'Neil, of O'Neil & Gardner, Lincoln, Nebr., is the proud father of a new boy. The young jeweler is a recent arrival at the home of Mr. and Mrs. O'Neil, and there is much rejoicing among the family and friends over his advent.

A cordial invitation is extended to everybody in the jewelry trade to make the combination exhibit of the Reichenberg-Smith Co., at the Omaha Exposition, their headquarters while attending the Fair. Here you will find one of the largest orchestral music boxes made by the Regina Co., discoursing delightful music at all times. This exhibit can be found in the center of the Manufacturers' Building, facing the lagoon door.

Our friend Fritz Hoefler, the well-known jeweler, of Aurora, Nebr., visited Omaha recently for the purpose of doing the Exposition. He says the Exposition is all right; simply great, but that he had a slight touch of metropolitan life while here that he will not soon forget, and which, he says, he knows will bring a broad grin to the faces of some of his friends in the trade when they read about it. While here Mr. Hoefler was the guest of a friend who resides near Hanscom Park, and as his friend's home was pretty well filled with visitors the night of his thrilling experience. He slept on the couch in the back parlor, which was on the first floor. About six o'clock in the morning Mr. Hoefler awoke with a heavy, drowsy feeling. He next reached for his clothes but found they had disappeared from where he had placed them the night before. After a trip of discovery he found his clothes out in the hall all in a pile. Upon examination it was found that his one-carat diamond stud was missing; so was his watch and chain and \$35 in money. From the peculiar sensations felt that morning, Mr. Hoefler is of the opinion that the burglar chloroformed him. The thief made his entrance into the house through the front door by turning the key with a pair of pliers. When last heard from Mr. Hoefler had completely recovered from the shock and was feeling good-natured over his loss. His watch was a 6-size Waltham, 15 jeweled, adjusted, in a nickel case, No. 5744704.

The 24th day of September is Commercial Travelers' Day at the Omaha Exposition.

The auction sale at the C. S. Raymond Jewelry Co.'s store, still continues to be a large success under the direction of P. J. Burroughs, of Chicago.

The Reichenberg-Smith Co. have a very attractive Exposition souvenir spoon which they have made in two sizes. The work on these spoons is elaborate and the designs are unique. The large size spoon was made by the W. B. Durgin Co., Concord, N. H., and the smaller by the Meriden Britannia Co.

The cut shown above represents one of the most beautiful and impressive scenes at the Exposition. It is a view worth going all the way to Omaha to see, yet this is only one of the many fascinating combinations of architectural and scenic beauty, to say nothing about the exhibits proper, which include the combined marvels of the century.

C. ROGERS & BROS. A1.

SPOONS, FORKS AND KNIVES



REGENT
DESSERT KNIFE

VICTOR
DESSERT FORK

MILTON
TEA SPOON

bearing the above Trade Mark still hold the coveted position of first place among the various brands of "ROGERS" goods in the market, for Superiority of Design, Quality and Finish. These goods, which are "satisfactory alike to dealer and consumer," have attained this position by reason of their distinctive merit which the test of many years has proved. It is best evidenced, perhaps, by the steadily increasing demand for them. Unlike all other brands of "ROGERS" goods, they are really the product of a firm of **LIVING ROGERS BROTHERS**, and not stamped "ROGERS" and made by somebody else.

MANUFACTURED BY

C. ROGERS & BROS.

MAIN OFFICE
AND FACTORY **MERIDEN, CONN.**

CHICAGO
131 WABASH AVE.

NEW YORK
MALTBY-HENLEY CO.
20 WARREN ST.

KANSAS CITY, MO.

OUR DIAMOND BUSINESS IS BOOMING!
FINE GOODS AT RIGHT PRICES DOES IT

NICE CLEAN	1/2 C. DIAMOND	\$60 LIST
" "	3/4 C. "	\$90 "
" "	1 C. "	\$134 "

Wholesale & Manufacturing Jewelers
Edwards and Sloane Jewelry Co.
610-616 Keith & Perry Building,
KANSAS CITY, MO.

EDWARDS & SLOANE JEWELRY CO. KANSAS CITY, MO.

KANSAS CITY, MO.

The C. L. Merry Optical Co. wants every Jeweler and Optician of the West to know that they have one of the Largest and most Complete Optical Plants in the country, and are prepared to fill any demand from the smallest item to the largest stock order without delay, at bed rock prices. Calling Special Attention to our facilities, lately added, for Printing and Shipping Spectacle and Eye-Glass Cases with other goods ordered, saving expressage, delays, etc.

Send for samples and prices of the Finest and Cheapest line of Cases on the market.

C. L. MERRY OPTICAL CO.

Manufacturers, Jobbers and Importers

KANSAS CITY, MO.

Kansas City and the Great Southwest.

The outlook for our particular territory is very bright. With the exception of a few places immense crops are assured, and while the prices for grain are not as high this year as last, the increased production over last year is so great that every one looks forward to a great amount of money in circulation. The firms of Woodstock, Hoefer & Co., Edwards & Sloane Jewelry Co., The Meyer Jewelry Co. and C. L. Merry Optical Co. are all increasing their stocks and force, and the indications are for an immense fall and winter trade. Kansas City besides being the center of a territory which naturally looks to us for supplies is making great strides herself. The building increase for July exceeds every other city in the United States excepting New York, it amounts to \$337,730; St. Louis shows a decrease, while Chicago's increase was only \$232,000. With many large industries already here, many more are contemplated, and we some day, not far distant, will make the East look aghast.

"There is every indication that fall trade in the jewelry line will be unusually active," remarked Mr. Geo. H. Edwards, of the Edwards & Sloane Company. "Reports from our representatives and advices from retail jewelers throughout the territory tributary to Kansas City, are to the effect that the wheat and corn crops will be good for the most part. Missouri and parts of Kansas will be a little shy on wheat; then in some parts of Kansas the corn has been injured by hot winds, but the recent abundant rains are helping it out nicely, and the other States in this territory are in a prosperous condition much above the average. The little unpleasantness we have been having with Spain has not disturbed business here, except, perhaps, at the beginning of it when a few dealers showed a disposition to be conservative. Now that peace has been declared, the outcome can scarcely be said to be a factor in the business situation. Trade will keep right on improving and expanding in obedience to the healthful conditions, regardless of what the diplomats may or may not do. Spain is powerless to do this country even the remotest injury, and the possibility of Germany or any other European power becoming involved in the controversy has long since passed away. The business world, therefore, in this part of the country is moving forward with preparations on the basis that war is over."

A new optical firm, Zimmerman & Hafner Optical Co., located at 1015 Walnut Street, this city, have just finished fitting up their new rooms, and have now one of the best appointed retail places in the city. The firm is composed of Dr. A. F. Zimmerman, formerly of Warrensburg, Mo., and Dr. Leo G. Hafner. They are located in the heart of the dry goods district, and will endeavor to make their rooms the most popular in town.

When questioned as to the different effects war and peace have on business, Mr. Charles C. Hoefer, of Woodstock, Hoefer & Co., said: "The ending of the war should stimulate every branch of trade. Business flourishes best under natural, normal conditions. The raising of armies and the granting of contracts cause undue animation in a few special directions, but the uncertainty of war always tends to injure business generally. War checks enterprise, engenders speculation, makes capital timid and labor restless. It is an enemy of thrift, frugality and prudence; it engenders recklessness, extravagance and crime; it arouses the baser passions of humanity and enthrones brute force where reason and justice should sway. Peace is the ideal condition, but wars are necessary and frequently beneficial. Spain is a decadent nation that, by her inhumanity and misgovernment, has forfeited the right to own colonies. The United States was the agent of Providence to right the monstrous wrong of the century, and give good government to the Spanish West Indies. The success of our navy has won respect for our flag on every foreign sea. This will have an important influence upon the extension of the export trade. The United States has become a world's nation, and owner of colonies,

and one of the recognized great naval and commercial powers. It now remains for our merchants and manufacturers to demonstrate the greatness of the nation in peace as in war. The sentiment in favor of retaining our flag upon the Philippine group of islands seems to be practically unanimous. Our government of the semi-civilized inhabitants may not be perfect, but it will be a vast improvement over that of the treacherous Spaniards. The new colonies will be opened to American capital, industry and enterprise. It is quite within the bounds of the most conservative common sense to suppose that the successful termination of the war will open the markets of the world to the United States."

We note with great pleasure the fact that the C. L. Merry Optical Co., well known for their push and enterprise, have recently added facilities for printing names of their customers on spectacle and eye-glass cases. This is a great and important convenience for their patrons, and will undoubtedly bring this well-known firm into much closer connections with the Western trade, and will also enable customers to save time and expressage. They carry an immense line, and one trial convinces any one that better service can be had nearer home, with a great saving of time, which is a big item in these busy times.

Julian Sutter, formerly watchmaker for A. W. Harsch & Bro., of this city, is now with J. B. Trickey & Co., Lincoln, Neb.

Frank Shinn, an old time Kansas City boy, but now with S. H. Clausin & Co., Minneapolis, Minn., accompanied by his wife, spent a few days here visiting friends and relatives last month.

Benjamin F. Popenoe, formerly with the Rushmer Jewelry Company, Pueblo, Colo., has removed to this city, where he has accepted a position with S. R. Abney.

S. Spitz, one of the hustling jewelers of Santa Fe, N. M., was a buyer here last month. Mr. Spitz is making an extended Eastern trip.

Marve Truby, the enterprising jeweler of Independence, Kan., besides being up in the jewelry line, is a base ball enthusiast, and has a well-earned reputation for being a crack player himself. Marve does not play as much this season as those gone by, but we see an account where he stood behind the bat at a recent game between Coffeyville and Independence, his team winning the game. The local paper sizes it up thus: "The Independence base ball team was never worth shucks without Marve in the game."

T. J. Turner and wife were spending some time last month in Omaha taking in the Exposition.

L. C. Buchmann, Clay Center, Kan., was in the city one day last month on a business trip.

W. H. Meyer, of Lawson, Mo., accompanied by his son, was in the city last month on a purchasing trip.

W. J. Hoet, of Stillwater, Oklahoma, one of the few big towns in the Territory which boasts of no railroads, spent a week in Kansas City last month.

Mr. Stone, formerly watchmaker for P. H. Young, Dodge City, Kan., has resigned and gone to Morrison, Ill.

E. H. Tipton and family, of Ottawa, Kan., spent two weeks in the country last month, where they had an enjoyable time camping out.

Clarence Pitts, formerly with J. R. Mercer, East 11th Street, this city, but now watchmaker for B. Mantele, Hutchinson, Kan., spent a week last month at Omaha doing her big show.

G. E. Utterback, Elk City, Kan., committed suicide last month. He left no cause for his self-destruction.

C. W. C-osby and wife, of Brookfield, Mo., were in the city a few days last month making fall purchases.

E. Freeman, Paola, Kan., was in town for a few days last month. Mr. Freeman is a frequent and welcome visitor in Kansas City.

Simon Marks, a traveler for Hugh Oppenheimer, of this city, had a narrow escape from drowning while recently driving across the Canadian river in the Oklahoma Territory. As it was, he escaped with a wetting to himself and trunks.

A. W. Burke, of the Burke-Nelson Engraving Co., is spending a few weeks taking a much needed rest at a place in Southwest Missouri, which at present time we have failed to locate.

J. A. Barth, manager of G. N. & E. R. Moses' store at Clafin, Kan., was in the city for a few days last month.

D. J. Lewis, of Hoisington, Kan., was buyer here last month.

Harry Bower, the popular young jeweler of Delphos, Kan., spent a few days in the city recently.

C. E. Gregory, of Belle Plaine, Kan., was a welcome caller among our wholesalers last month.

C. W. Dingman has removed from Summerfield, Kan., to Blue Rapids, Kan.

Herman Ackerman, of Marysville, Kan., has moved into a new store, where he is much better located.

C. H. Morrison, of Topeka, Kan., fell from his bicycle last month and bruised himself up considerably. He is now about recovered, however.

Jeweler Geo. L. Hubbell, of Howard, Kan., was a visitor in the city last month.

W. L. Morris, of Florence, Colo., was a buyer here last month. Mr. Morris left here for a few weeks' trip in the East.

T. L. Basket, Unionville, Mo., passed through Kansas City last month on his way to the Democratic State Convention, at Springfield, Mo. Mr. Basket was a delegate from his county.

B. F. Bartson is a new arrival in Kansas City. He will engage in the optical business.

J. W. Edmonds, Atwood, Kan., has been in the city the past month taking a course in optics.

Fred. Merry, of C. L. Merry Optical Co., accompanied by his wife, has been spending a few weeks in the country, resting and getting in shape for the fall trade.

E. R. Welker and wife, of Liberal, Mo., passed through the city last month on their way to Omaha and the North.

F. W. Swearingen, of Topeka, Kan., has moved to larger quarters at 614 Kansas Avenue.

A. J. Carruth, of Herrington, Kan., recently spent a day in the city. Mr. Carruth always brings a new story.

The genial E. R. Moses, of Great Bend, Kan., was a buyer in our markets last month.

F. B. Patterson and wife, of Great Bend, Kan., stopped over in the city a day last month on their way home from a week's visit at the great Trans-Mississippi Exposition at Omaha.

Harry Sloane, of the Edwards & Sloane Company, accompanied by his brother from Brooklyn, N. Y., recently took in the Omaha Exposition and spent a few weeks doing Colorado.

Campbell Bros., formerly located at 113 East 12th Street, has removed to 103, the same street, where they have a much nicer room.

Edgar Haines is still a bachelor; his wife being with relatives in Pennsylvania spending the summer.

Garton Rushmer's family are spending the summer months at their old home in Lawrence, Kan. Mr. Rushmore is a well-known jeweler of Pueblo, Colo.

J. O. Warren, of Muskogee, I. T., has recently returned from an extended trip to his old home in Alabama.

Amos Plank, of Hutchinson, Kan., spent a week in the city the past month, and several days in Omaha, taking in the sights of the Exposition.

F. W. Meyer and party returned from Omaha, where they spent an enjoyable time.

Recent visitors and buyers in this market were: R. Starcke, Junction City, Kan.; Geo. Young, Kearney, Mo.; J. H. Whiteside, Liberty, Mo.; S. Friedberg, Topeka, Kan.; Gus. Willman, Lawrence, Kan.; A. Zimmerman, Warrenburg, Mo.; Frank Wuerth, Leavenworth, Kan.; S. J. Huey, Excelsior Springs, Mo.; J. J. Stott, Paola, Kan.; L. Hoffman, Leavenworth, Kan.; S. J. Strickler, Salina, Kan.

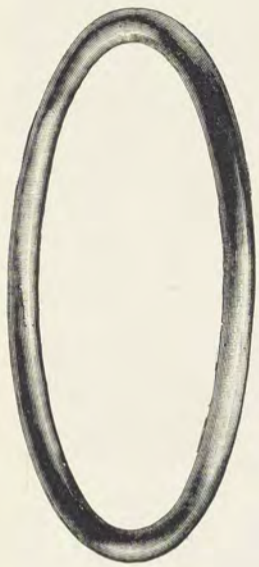
The Kansas City *Journal*, in a recent article on the State of Kansas, said: "We doubt if there is another State in the Union—or, indeed, a country in the world—which can show such a per capita of wealth drawn from its farms and ranches." And the future is even brighter than the past, individually as well as agriculturally.

700 e

NEW LINE

In addition to our regular Chain product, which includes all kinds of

Gents' and Ladies' Chains, Chain Bracelets, Etc.



Also

Locket and Seals

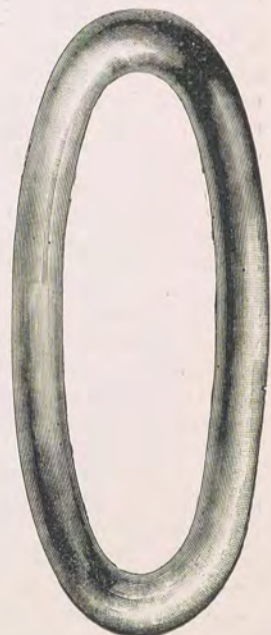
in gold and gold filled,
we have just finished a complete line of

Ladies' Bangles or



Hoop Bracelets

made in sterling silver and gold filled,
in both the round and oval shapes.



FOR SALE BY ALL LEADING JOBBERS.

R. F. SIMMONS & CO.

New York Salesrooms,
41 and 43 Maiden Lane.

Factory and
Main Office, Attleboro, Mass.

St. Louis Letter.

The consummation of the Louisiana purchase, in 1803, was a memorable event in American history. By that purchase we acquired from France the territory now embraced in the great States of Louisiana, Arkansas, Missouri, Kansas, Nebraska, Iowa, North Dakota, South Dakota, Montana, Idaho, Washington, Oregon, and the greater portions of the States of Minnesota, Colorado and Wyoming. These States to-day constitute a vast empire of wealth and progress, enterprise and population. That the event by which we came into possession of this magnificent domain should be befittingly celebrated in the year of its centennial anniversary is altogether appropriate and proper. The movement towards a splendid exhibition to celebrate the Louisiana purchase has already taken definite shape and form. Representative business men of St. Louis have met and arranged to promote the work, through a committee, which is to decide upon some practical means of securing the co-operation necessary to make the proposed exhibition a success. Whatever these gentlemen do will not be biased by local motives or interests alone, but will take into consideration the welfare of the citizens of all the territory embraced in the Louisiana purchase, and the interests of the outside world so far as they are affected by their action. At all events there should be a magnificent celebration in some city in the Mississippi Valley in 1903, and the resources of the Mississippi Valley are amply sufficient to produce an exhibition not eclipsed by any similar exposition in the history of American enterprise.

St. Louis is offering more and better attractions to her visitors this fall than ever before, and it seems if people were realizing that fact, for the rush of visitors is later than usual.

According to the *Post Dispatch*, since the beginning of the war the United States Government has bought in St. Louis, for the use of the army, 2,032,037 pounds of bacon, 46,188 cans of corned beef, two-pound; 2,718,252 pounds flour, 1,887,225 pounds hard bread, 90,420 pounds baking powder, 628,974 pounds beans, 26,928 cans beans, baked; 186,925 pounds rice, 63,000 pounds hominy, 1,307,500 pounds potatoes, 186,550 pounds onions, 795,504 cans tomatoes, 286,035 pounds coffee, 64 pounds black tea, 34 pounds green tea, 650,818 pounds sugar, 42,339 gallons vinegar, 174,680 pounds salt, 12,900 pounds pepper, 170,580 pounds soap, 67,910 pounds candles, and 24,240 cans salmon.

Now for a big fall business. With nothing to distract the minds of the people the business of this country this fall ought to be big enough to satisfy anybody.

The great St. Louis exposition will be better than ever this year, and will offer more attractions to its visitors than ever before in its history. The completion of the Coliseum this last winter has given a new opportunity to the management which they have not been slow to seize. The exposition is the greatest show of its kind in the country, and the season of 1898 will only add to its name. In the exposition proper will be an unusual number of new and attractive exhibits. In the Coliseum the arena is to be turned into an immense palm garden and here Sousa's band will give four daily concerts. It will be like a scene from fairy land, with the myriads of lights, the people, palms and music. In the big music hall the management will give a great scenic naval show and no expense or trouble will be spared to make it as realistic as the genuine article.

Peace has come, and now all the timid merchants around the country are awakening to the fact that the fall season of 1898 is going to be a warm one for business men.

Now that the war is over there are good reasons to believe that the South is about to enter a new era of industrial expansion. The establishment of a mammoth steel plant near Birmingham, and the projected wire and rod mill portend great things, which will be only the beginning of more splendid achievements to follow.

A test case is being made against the express companies here in regard to the payment of the stamp tax. Although the law is clear enough on this point, the express companies are still holding out.

The Mermod & Jaccard Jewelry Co., and the E. Jaccard Jewelry Co. have announced their intention to have elaborate exhibits in the fall exposition.

William Weiblich has been made the St. Louis representative of the New England Watch Co., the Hamilton Watch Co. and the Watson & Newell Co.

J. M. Bassett, of Bassett & Fairbanks, Jacksonville, Ill., was a trade visitor here the early part of last month.

Otto Schneider, of Hammel, Riglander & Co., was in St. Louis last month taking orders for his firm.

H. A. Barneier, secretary of the L. Bauman Co., has recently returned from a three weeks' outing spent with his family among the Minnesota resorts.

J. B. Hartman, in charge of the watch department at the L. Bauman Co., and Miss May Jenkins, for six years past the stenographer for the Eisenstadt Manufacturing Co., were married August 17th. Their many friends in the trade will join THE KEYSTONE in wishing them all sorts of good luck in their new relations.

J. W. Carey, of J. W. Carey & Co., spent the month of August down in New England. He was accompanied by his wife.

Fred. H. Allen, the well-known manufacturers' agent, of Chicago, was in the city recently calling on the trade.

Frank Niehaus is building a fine residence on the Craig Road.

The genial and lively Billee Pflueger, of Joseph Noterman & Co., was in the city recently displaying his new fall line to the trade.

Fred. Pettee, of the Waterbury Clock Co., visited the trade here last month with an entire new line of fish stories.

Miss Trent, cashier and accountant for the Eisenstadt Company, will have the sympathy of the St. Louis trade, among whom she is well known, in the sad bereavement which has recently come upon her in the loss of her mother, whose death occurred August 14th at their home in this city.

Mr. Barnett, of Barnett Bros., Edwardsville, Ill., was a recent trade visitor here.

M. G. Wolff, of Chester, was in St. Louis last month on a business trip.

E. J. Wick, of Breeze, Ill., was in the city recently on a purchasing trip.

Joseph Linz, of Jos. Linz & Bro., the well-known jobbing firm of Dallas, Texas, was met in one of our wholesale offices recently by THE KEYSTONE representative. Mr. Linz remarked that the outlook for Fall business was fairly good in Texas, though they could never feel assured of anything sure in the Lone Star State until the harvest was all over and everything was gathered in. Mr. Linz said his firm expected to occupy their handsome store in their new modern office building early this fall. Their new quarters will be metropolitan and thoroughly up-to-date—a credit to the firm, city and State.

W. H. Carman has recently opened up a jewelry store in Sorento, Ill. He was in town last month and bought his opening stock.

B. H. Rounds, of B. H. Rounds & Sons, Owensboro, Ky., was a buyer here recently.

A. N. Warden, with A. S. Smith, Sherman, Texas, was in this city recently calling on the trade.

L. L. McKinley, a student at the St. Louis Watchmakers' School, left August 8th for Longview, Texas, where he will open up a repair business.

Business Failures and Old Stock.

How often is it that when a failure occurs in any line of business it is discovered that a large amount of the stock on hand is old, obsolete and unsalable? It would seem that this very condition of affairs would justify a careful search for the cause and the application of the proper remedy. Is not the whole situation explained by this one fact, that when a new supply of goods is received by the average merchant it is piled or dumped upon the old, thus leaving the original supply as a perpetual corner stone for successive pyramids of fresh goods? Under these conditions it is not surprising that a certain amount of goods should become shopworn, faded, stale and useless. By reason of this very system a large number of retail merchants, in making a statement of their affairs, should in all justice classify about 25 per cent. of their stock as "fixtures."

No matter what the kind of goods, when a new lot arrives, that which is on hand should be carefully removed and the fresh supply put in the place assigned to it. The old lot should either be placed on top or otherwise arranged so as to be the first that is sold. This rule should be applied to every class of goods, whether sold by the yard, pound or piece. This method, properly observed, guarantees a continuous rotation of stock and will keep everything neat, fresh and attractive. Old stock should not be tolerated by any merchant that desires to keep abreast of the times and effectively meet his competition.

When new stock of a certain character is received it is the general custom to mark it with both the cost and selling prices. Equal care should be taken to mark, along with the other figures, the date of its receipt. When the annual or semi-annual inventory is taken every article in the store

should be itemized, and opposite in parallel columns there should be noted the cost price, the selling price and the date it was placed in stock. After the inventory has been completed it should be carefully analyzed and separated into sections. Every article over six months old should be at once moved, even at a sacrifice if necessary. Of course, the character of the goods will determine the length of time that their retention on the shelves will be safe. Fresh, clean and attractive-looking stock is a merchant's best advertisement. It indicates his enterprise and judgment as nothing else can, and it is certain to attract the attention of his patrons and command trade.

Annual Picnic of the Missouri Retail Jewelers' Association.

The ninth annual picnic of the Missouri Retail Jewelers' Association was held at Fern Glen, August 28th. The picnic was well attended, and a day of genuine sport was enjoyed by all present. The events consisted of a game of base ball between the manufacturers and jobbers, captained by Joe McKenna, and the retailers, captained by Otto Steiner; races for small boys, large boys and girls; target shooting for ladies and gentlemen; archery for ladies; grand cake walk by professional colored cake walkers; grand prize drawing for ladies.



H. MAUCH,
Chairman Committee on Amusement
and Prize Drawing.



W. F. KEMPER,
Chairman Committee on
Base Ball and Boat Races.



G. ECKHARDT,
Chairman Committee on
Target Shooting.

All the events were well contested, and aroused the greatest enthusiasm. The committees, to which credit for the success of the events are due, were as follows:

Committee on Base Ball Games and Boat Races: William F. Kemper, chairman; Edward Bohle, Chas. Derjeth, Theodore Ebeling, Julius Fritton, S. Ruby and Phil. Frech.

Committee on Target Shooting: Gerhardt Eckhardt, chairman; William Mauch, Fred. Halter, John Schmid, John F. Zeitler, Julius Schmitt and Joseph Ryser.

Committee on Archery and Shooting: Henry Lowenstein, chairman; A. Mauch, A. J. Clabes, F. W. Drosten, C. Frechman, Joseph J. Hoeffner and H. C. Nicolai.

Committee on the Cake Walk: F. W. Bierbaum, chairman; J. Schmid and O. H. Kortkamp.

Committee on Prize Drawing: H. Mauch, chairman; F. W. Bair, E. H. Niehaus, V. Rapp, Fred. Simon, Jno. Schmelzer, F. Gammeter.

O. H. Kortkamp was the chairman of the Reception Committee, which consisted of sixteen members, and Henry Mauch was the chairman of the Amusement Committee.

The Association's functions are noted for the thorough enjoyment furnished, and the picnic was fully up to the mark in this respect.

Souvenir Spoons from Spanish Plate.

A New Brighton, Pa., woman wrote to the Navy Department to suggest that the \$30,000 worth of melted silver which she heard had been found on the Maria Teresa at Santiago should be made into souvenir spoons, and that she should receive the first one made. She believed, so her letter said, that enough could be realized from the sale of such spoons to build a torpedo boat destroyer.



Come and See Us

When you come to the St. Louis market this Fall remember this invitation. Our doors are always open and you are always welcome.

We are Jobbers of American and Foreign Watches and a general line of Jewelry, Importers of Diamonds and Precious Stones, and Manufacturers of Fine Jewelry, giving our special attention to order work. We have been in the business long enough to know just what kind of treatment the Retail Jeweler wants and expects, and we give it to him.

Our new Fall line is by far the best and most complete we have ever shown. Our advice to our customers: Buy **early** and **liberally** and don't get left.

If you cannot visit us, give us a trial on your mail orders.

EISENSTADT MFG. CO.

ST. LOUIS

"Seek no further.
Seeing is believing."

A large percentage of the Jewelers handle the "OMEGA" Watches.

Why? Because they **know** it is the **Best Watch** made for the money.

Why? Because they can make a **fair profit** on the "OMEGA," as they are sold only to **Legitimate** Jewelers.

Why? Because **every movement** is warranted a **fine timepiece**.

We want **ALL** the **up-to-date** Jewelers to handle the "OMEGA." Your stock is not complete without them.

Send for Price-List.

EDMOND E. ROBERT,
3 Maiden Lane, NEW YORK.
CROSS & BEGUELIN,
17 Maiden Lane, NEW YORK.

SOLE
SELLING
AGENTS

Omega Watches

Over 1,000,000 in use



The "Omega" are pendant-set, fit O and 16 size Waltham cases, and are made in 5 different grades as follows:

- 7 Jewels, Expansion Balance, Double Roller, Nickelized.
- 15 Jewels, Expansion Balance, Double Roller, Nickelized.
- 15 Jewels, Expansion Balance, Double Roller, Nickel, Pat. Reg.
- 17 Jewels, Expansion Balance, Double Roller, Nickel, Pat. Reg., adjusted.
- 17 Jewels, Expansion Balance, Double Roller, Nickel, adjusted to 5 positions.

WARRANTED FINE TIMEPIECES.

ALL PARTS INTERCHANGEABLE.

Above made to order with dealer's name if desired.

Clocks.

CXXIX.

The Principal Gravity Escapements Reviewed.



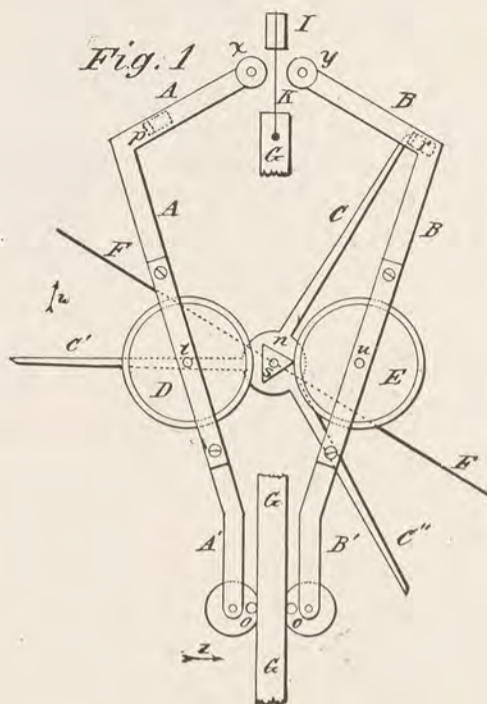
In order to convey a good idea of the several gravity escapements which have been successfully used, we shall have to give a brief detail notice of three forms of gravity escapements. We will commence with the single three-legged gravity escapement, by Dr. Waldo and Prof. Lyman. This, and in fact almost all the gravity escapements of recent date, have employed Denison's suspended levers, as shown at *AB*, Fig. 1, page 620, August, 1898, KEYSTONE. In the opening paragraph of our August article we briefly mentioned this form of gravity escapement, and now will add a brief synopsis of the details of construction.

This escapement has the same general form of the Denison, the difference being in minor details. We show at Fig. 1 the general arrangement of the Waldo-Lyman gravity escapement. The usual suspended levers are shown at *AB*. These levers turn on arbors located at *xy*. The three legs, or escape-wheel teeth, are shown at *C C' C''*. The legs *C* turn on an arbor with its center at *s*. The lifting of the levers *AB* is not done with three pins, as was employed with the escapement shown on page 620, August, 1898, KEYSTONE, but by means of a three-cornered cam, shown at *n*. This cam is mounted on the same arbor as the three-legged escape-wheel *C*. On the suspended levers *AB* are mounted two friction wheels, shown at *DE*. It will be seen that as the three-cornered cam *n* revolves its angles will come in contact with the wheels *DE*, moving them outward. The friction wheels *DE* turn on pins in the arms *AB*, located at *tu*.

A little study of the drawing at Fig. 1 will show us that as the legs *C* turn on their center *s*, one of the angles of the cam *n* will strike alternately the friction wheels *DE*. As shown in the cut, the friction wheel acted upon is *E*, and the leg *C* is locked on the stop *r*. It will also be seen, as we mentally carry the analysis of the successive movements of the several parts forward, that as the pendulum *G* moves onward in the direction of the arrow *z*, that the suspended lever *B* will be moved outward, so as to release the leg or tooth *C* from the stop *r*, and the legs will next rotate in the direction of the arrow *w*, until the leg *C'* comes in contact with the stop *p* on the lever *A*. It is further evident that as the triangular cam *n* revolves in connection with the legs, that the lower left-hand angle of said cam will strike the friction wheel *D*, carrying the lever *A* out toward the left, leaving it in this position until the pendulum rod strikes the pin *d* in the lever *A* and frees the tooth *C'* from the stop *p*.

It will be seen that this escape-wheel, or set of legs, as some choose to say, has the same angular motion (60°) as the double three-legged escapement we described in our August number. As far as satisfactory performance is concerned, we think there is but little choice, and the labor of construction is also about the same.

The subject of gravity escapements would hardly seem complete without mention of Thwaite's and Reed's six-legged gravity escapement, which we illustrate at Fig. 2. Here again we have the two pendant levers, *AB*, but in

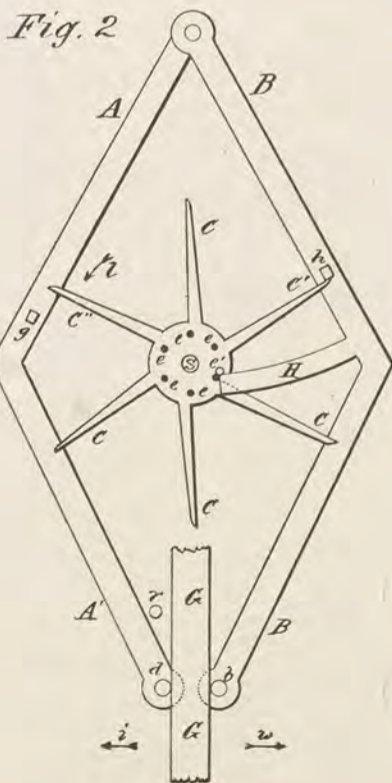


the present instance one lever is idle, that is, it does not give an impulse; or, in other words, an impulse is given only when the pendulum swings toward the left

A Single Impulse Gravity Escapement

If we analyze the action of this escapement we will see that, as the cut shows the action, the leg or tooth *C'* rests on and is locked by the stop *h*, and one of the lifting pins *e* rests against the pallet *H*. Now, as the pendulum swings to the right such movement disengages the tooth *C'* from the stop or locking piece *h*, and the six-legged escape-wheel turns forward in the direction of the arrow *l*, and the tooth *C''* engages the stop *g*. The lifting pin *e*, which did engage the pallet *H* has moved forward to the position indicated by the open circle *e'*, and the pallet *H* moves underneath the lifting pin *e'* in its new position. The pendulum, swinging on its return excursion, encounters the pin *d* in the lever *A'* and the tooth *C''* is unlocked from the stop *g* and the six-legged escape-wheel revolves again, carrying the lever *B* outward in the direction of the arrow *w*, until another tooth or leg is locked on the stop *h*.

A very little study of the cut will make all



the actions of this escapement understood. This escapement gives excellent satisfaction. There has recently been patented in England a new and modified form of gravity escapement by the well-known chronometer maker, W. G. Schoof, of 99 St. Johns Road, Clerkenwell, London. We have seen a half-tone cut of working model, but do not know enough of the details of construction to speak intelligently about it. As shown in the cut referred to, the escape wheel has 90 teeth, but the inventor claims better results from an escape wheel of 120 teeth.

Another gravity escapement, invented by Charles Fasoldt, of Albany, N. Y., is well worth study, but is too complicated to meet with general favor or to permit us to give details of construction. This escapement has no resemblance to the Denison. A fine specimen of this escapement is in the clock tower of the Philadelphia and Reading Railway, at Reading, Pa.

In our next article we shall take up in detail the construction of the four-legged gravity escapement for precision clocks with seconds pendulum. Such clocks are assuming great importance, from the fact of their peculiar adaptability for transmission of electric time signals, as a drag on the train of the clock has no influence on its time-keeping qualities.

Enclosed find money order for one dollar, for one year's subscription to The Keystone. Your publication is certainly worth three times the amount you charge and the knowledge one can obtain from it is priceless."—Krulewicz Bros., jewelers, Waco, Tex.

Building Up a Business.

The man who aspires to establish a permanent paying business will take great care in laying his foundations. No matter what particular line he may be in, he may have the very laudable ambition to lead in his trade, to make his name pre-eminent among his fellows and to have his goods mentioned as the best of their class. The grandest advertisement ever penned is poor compared to a reputation for keeping honest goods and telling the truth about them. In building up a business be careful not to make a false start by neglecting this. Found your business on truth, and the superstructure is bound to be a success, but if your foundation rests on false goods and false statements, your business is in danger of tottering at any minute, and is almost certain of collapse sooner or later.

If you are in business "for keeps" you must strive to please the public permanently. It won't do to give real bargains occasionally and practice a "skin" game in between. Never advertise what you haven't got and can't supply. To the people who visit your store in response to such ads, you are simply furnishing an object lesson in lying. You will make more enemies than friends that way. It is a great thing to have your advertisements implicitly believed. It is easy, too, if you always tell the truth. People are as quick to appreciate the truth as they are to condemn the falsehood.

In building up a business you should choose your employees with care and discrimination. Every one of your salespeople should be polite. Courtesy to all is one of the first essentials in a well organized store. And the best way to teach your employees politeness is to set the example yourself in your relations with them. Don't earn a reputation for being mean or over-strict with your help. Try and make each individual feel that he or she is a part of the firm, and that much depends on his or her personal efforts. Do everything you can to make your help comfortable—kindness goes further than bullying. Well treated employees are great advertisements.

Another point in building up a business is to get a reputation for prompt pay. That's a big advertisement in itself. If you can pay cash for everything you buy you'll get the best, and you'll get it cheaper than the thirty or sixty days man could. People will be glad to deal with you, are sure to talk favorably of you, and you'll get plenty of first offers or "options" on goods that credit men would not be asked to buy.

—Printers' Ink.



KING TEA SPOON.



RAPHAEL TEA SPOON.

CROWN HAMILTON

THE HIGHEST GRADE SILVER-PLATED FLAT WARE
EVER MANUFACTURED



Trade-Mark.
HAMILTON.
Patented 1886.

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253 Broadway.
CHICAGO—Silversmiths' Building,
131-137 Wabash Ave.
PHILADELPHIA—722 Chestnut Street.
BALTIMORE—13 South Charles Street.
SAN FRANCISCO—18 Fremont Street.

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WATERBURY, CONN.

SEND FOR CROWN HAMILTON ILLUSTRATED CATALOGUE No. 98.

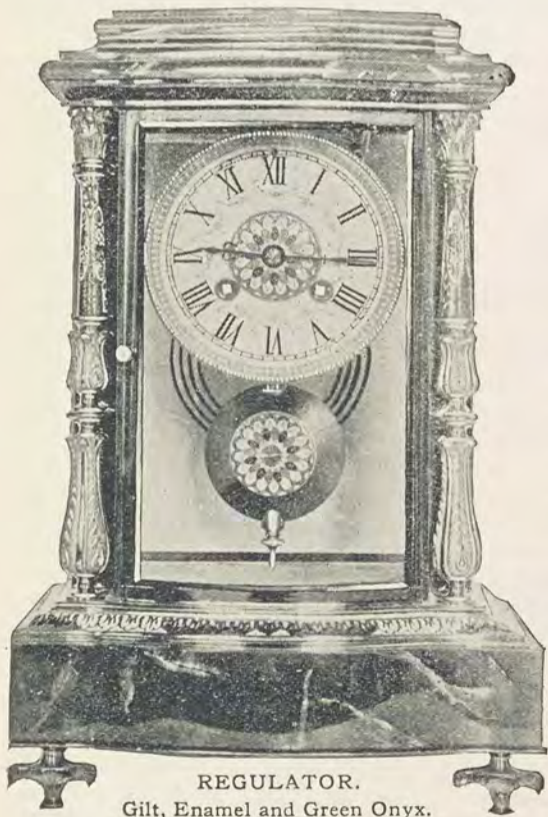


MONARCH TEA SPOON.



ACANTHUS TEA SPOON.

Gilt Regulators.



REGULATOR.

Gilt, Enamel and Green Onyx.
A large variety in stock.

New styles constantly augmenting the most complete line in the country.

Junghans' quarter-strike Mantel Clocks are controlled by us. In Oak, Walnut and Mahogany Cases—Mantle chiming Clocks, the Westminster Chime on four gongs, and the Wittington Chime on eight gongs. A fine new line.

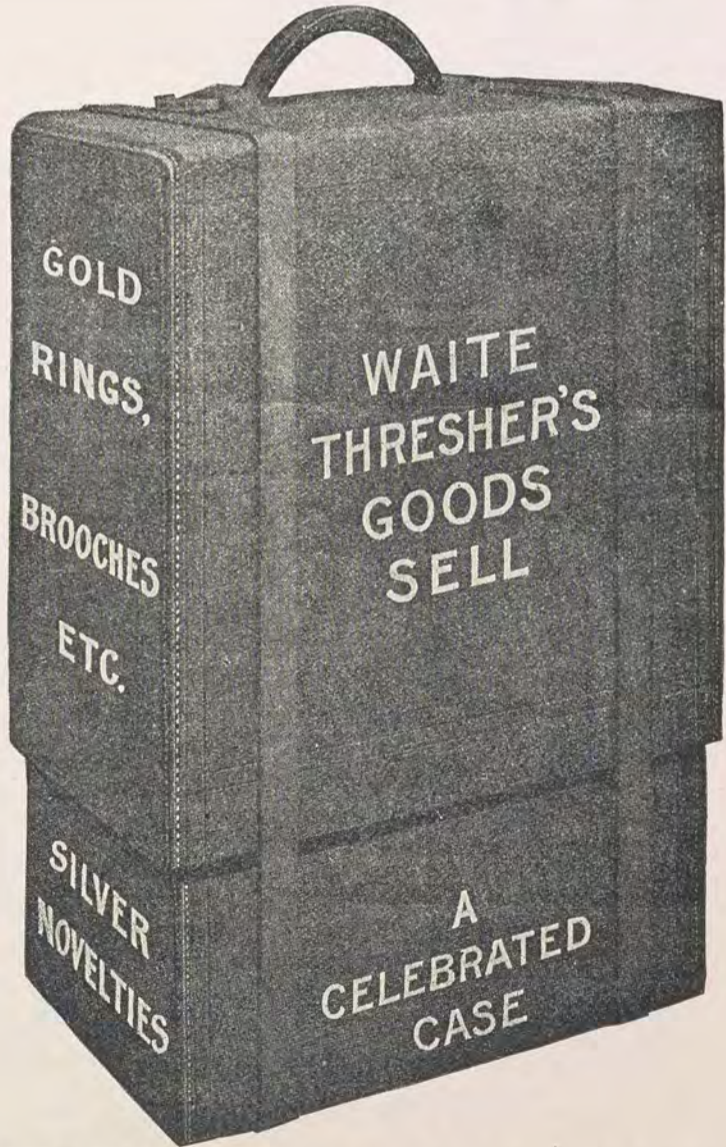
"ELITE" Weight Chiming Movements—the best in value and quality.

MATERIALS for all kinds of movements.

BAWO & DOTTER,

Manufacturers, Importers and Commission Merchants,

26, 28, 30 and 32 Barclay St., New York.



GOLD
RINGS,
BROOCHES
ETC.

WAITE
THRESHER'S
GOODS
SELL

SILVER
NOVELTIES

A
CELEBRATED
CASE

OUR NEW LINE is now in the stock of all leading Jobbers. Ask to see it.



New York Letter.

The most interesting feature of the general business situation here at present is the air of confidence with which the mercantile community awaits the approach of the fall trade period. A slight improvement in the general tone of distributive trade is apparent, but the volume of business transacted does not come up to the expectations of the jobbing and wholesale houses. Jewelry is one of the branches of business that are quiet so far, but the outlook for a good trade during the balance of the year is encouraging.

Crowds of buyers were noticed here last month, many of them being induced to come by the cheap rate excursion provided by the Merchants' Association. All brought excellent reports from their sections.

The extraordinary bigness of this city is well indicated in the expenses of the city government. The total cost of maintaining the government of Greater New York, as fixed by the budget for 1898, amounts to \$77,551,222. This is greater than the combined budgets of Philadelphia, Chicago, Baltimore, Washington, Cincinnati and Buffalo. Of the grand total, about \$46,000,000 represents the cost to the city of the boroughs of Manhattan and Bronx, constituting the old municipality. The balance of over \$30,000,000 represents the cost of Brooklyn and the other consolidated territory.

Tiffany & Co. have been ordered by the Congressional Committee to make the sword which is to be presented by the Government to Admiral Dewey. The committee consisted of Senator Lodge, Assistant Secretary of the Navy Allen and Prof. Johnson, of the Naval Academy. A marked characteristic of the design selected is its simple and solid elegance. The hilt of the sword shows a plain and solid but highly-traced gold handle. The blade is "Damaskeened." One side of the blade bears the inscription: "The gift of the Nation to Rear-Admiral George Dewey, U. S. N., in memory of the victory at Manila Bay, May 1st, 1898." The scabbard is of dark blue "Damaskeened" metal, with tracery of gold.

Geo. J. Smith & Co. succeeded to the manufacturing jewelry business formerly carried on by Warren G. Smith & Co., 170 Broadway. The partners are Geo. J. Smith, for 20 years with the old concern, and N. T. Allen, formerly of Pawtucket, R. I. The concern have also acquired the factory of Warren G. Smith & Co., at 178 Eddy Street, Providence, R. I. The New York salesrooms, at 170 Broadway, will be continued.

Louis Lippman, of Rothstein & Lippman Bros., Altoona, Pa., spent several days in this city last month buying goods, and taking in the neighboring watering resorts. He had previously spent a week or more at Atlantic City. He reported the outlook in his section as excellent for a good fall and holiday trade, and consequently was placing unusually heavy orders.

Leopold Stern, of Stern Brothers & Co., recently presided over an entertainment for the benefit of the Red Cross Society in Arverne in the borough of Queens. One-half of the amount realized, over \$1,000, was contributed to a fund for aiding the families of soldiers.

The customs' report shows that the value of cut stones of all kinds imported for the year ending August 1st, 1898, amounted to \$8,066,125, as against \$1,064,997 for the preceding year. This indicates an increase of \$7,001,128. As for uncut stones, there were imported for the year just closed \$4,077,270, as against \$1,367,179 in 1897. Under the high tariff of the Wilson bill the Government received for duties for the year ending August 1st, 1897, \$402,967, as against \$806,612 for the year just ended under the Dingley bill. This is indicative of a big fall trade in diamonds.

A petition signed by leading members of the jewelry trade in this city has been sent to President McKinley urging the appointment of J. B. Bowden, of J. B. Bowden & Co., as assistant commissioner to the Paris Exposition of 1900. "This gentleman," says the petition, "is an American in the truest sense of the word, a man of the best public spirit and of the highest probity, and a man of marked executive ability. He has been president of the Lincoln Club, of the City of Brooklyn, New York; is president of the Jewelers' Security Alliance, ex-president of the New York Jewelers' Association, first vice-president of the Jewelers' League of New York, president of the Jewelers' McKinley and Hobart Club, vice-president of the Jewelers' Business Men's Republican Organization of New York, and has ever exercised his abilities and energies in enterprises having for their object the bettering of the condition of his fellow man. He has, during his business career, been uninterruptedly identified with our industry, and it has ever been his aim to further its best interests and traditions. In brief, we will say that in every circumstance do we feel honored in acknowledging him a representative jeweler of jewelers."

Among the signers of the above petition are: New York Jewelers' Board of Trade, New York Jewelers' Association, Hayden W. Wheeler & Co., Alfred H. Smith & Co., Carter, Hastings & Howe, N. H. White & Co., Wm. Smith & Co., Mount & Woodhull, Enos Richardson & Co., C. G. Alford & Co., Gorham Mfg. Co., Reed & Barton, T. W. Adams & Co., Harrison Bros., John R. Greason & Son, and other firms of prominence.

The Navy Department, through the Bureau of Supplies and Accounts, invited sealed proposals until August 30th for furnishing the New York Navy Yard with 20,000 spoons and 20,000 forks. The goods are to be of pure white German silver, not less than 18 per cent. nickel, perfectly plain in style, highly polished and finished, and must weigh 20 ounces avoirdupois per dozen.

L. Tekulski, for many years in the wholesale millinery business in New York City, has recently started in the jewelry business at 419 Texas Street, Schreveport, La. Mr. Tekulski is an uncle of the Lippman Brothers, jewelers at Altoona and Bradford, Pa.

Jas. Morrill, Geo. Beyland and Archie Hallel, are new employes of L. W. Rubenstein, the wholesale watch and jewelry dealer, who reports an increasing trade.

The firm of Silberman & Sulzberger, manufacturers of diamond mountings, 64 and 66 John Street, has dissolved by mutual consent, Philip Silberman retiring. Fred. Sulzberger, who has purchased the interests of his partner, will continue the business.

Allen Lounsbury, of the firm of A. Lounsbury & Son, ring manufacturers, died last month. The deceased, who was one of the charter members of the New York Jewelers' Board of Trade, was connected with the jewelry business almost from boyhood. In 1868 he came to this city, where he bought out the business of Mr. Peckham, then a ring manufacturer in Dutch Street, and with two partners started in the business of ring manufacturing. The business was at first conducted under the name of Cooper, Cable & Lounsbury until 1874, when Mr. Cooper retired, and four years later Mr. Lounsbury purchased the interests of his other partner and continued the business alone. His son, Wales B. Lounsbury was admitted to partnership in 1888, and since that time the business has been run under the name of A. Lounsbury & Son.

H. B. Peters, the wholesale material dealer, made a tour of the Long Island resorts on his wheel last month. The trip took nearly two weeks, and was a most enjoyable vacation.

Wm. I. Rosenfeld, the Maiden Lane watch jobber, filled an interesting order last month. It was for an unusually fine and expensive gold watch to be presented to General J. P. S. Gobin, the Commander-in-Chief of the G. A. R., at the coming Annual Encampment to be held in a few days at Cincinnati. On the front, the General's monogram is engraved, while the back cap contains an American flag, made up of rubies, sapphires and diamonds, giving the proper colors. The inside cap is appropriately engraved with the recital of the occasion. The case had to be specially constructed, of course, and was made under Mr. Rosenfeld's personal supervision. The order for the watch was placed by J. C. Schmidt, the well-known jeweler of Lebanon, Pa.

Oppenheimer Bros. & Veith, 68 Nassau Street, have been admitted as resident members of the Merchants' Association of New York.

Ludwig Nissen, of Ludwig Nissen & Co., has just returned from Europe.

L. Friedlander, of R., L. & M. Friedlander, with his wife, is spending his vacation at New England seaside resorts and in the White Mountains.

Whiting & Davis have moved from 3 Maiden Lane into their new offices at 14 John Street.

Stephen C. Howard, well-known in the silverware trade, is now with Dominick & Haff.

H. H. Kayton and Mrs. Kayton celebrated the 25th anniversary of their marriage last month.

A recent attraction in the Maiden Lane store of the Gorham Mfg. Co. was a beautiful silver loving cup intended for a present by the Seventy-first Regiment of New York, to its former Colonel and present Lieutenant-Colonel Frederick H. Kopper. It is very appropriate in design, with suitable inscription.

Benedict Brothers, 171 Broadway, furnished the beautiful watch, chain and diamond charm presented by the crew of the battleship "Texas" to Lieutenant Francis J. Haesler.

Bawo & Dotter, manufacturers and importers of clocks, have just issued a new fall catalogue of clock materials, which is the most complete of any that the firm have ever issued. Special attention is given to the materials for hall and mantel clocks. The catalogue is very neatly arranged and profusely illustrated, and can be had free on application.

Following are the dates of the excursions arranged by the Merchants' Association for this month to afford special facilities for the merchants in the districts named to visit the metropolis for their annual fall purchases:

In Trunk Line territory, east of and including Buffalo, Pittsburg and adjacent places, south to the Ohio and Potomac Rivers, and north into Canada—September 1st to 4th, and September 10th to 14th, both inclusive. Conditions: Fare—One and one-third rate for round trip; tickets good for thirty days from Central Passenger territory, and fifteen days in Trunk Line territory. These are furnished on the certificate plan, and must be identified and countersigned by the Merchants' Association.

The first annual convention of the Buyers' Association of America was held last month. The following officers, who have served since the inception of the Association, were re-elected: President, Martin Roman, of Siegel-Cooper Co., New York; first vice-president, J. H. Carey, of R. H. Macy & Co., New York; second vice-president, C. E. Andrews, of Haskett & Co., of Chicago; third vice-president, Leo Lowenstein, of L. Jonas & Co., of Nashville, Tenn.; fourth vice-president, John D. Boyer, of Shepard & Co., of Providence, R. I.; treasurer, Geo. McL. Johnson, of B. Nugent & Bro., of St. Louis; secretary, J. A. Kraus, of "The Buyer." Among other important matters brought before the convention was the advisability of establishing a permanent home in this city for the Association, with commodious quarters, where the buyers from out-of-town, and those of the city as well, can assemble at all times.

(Continued on page 700 n.)



Cheap-Rate Buyers' Excursions to New York City

Reduced Railroad Rates for Retail Jewelers

The stock-buying season is here, and the great stock-buying center is New York City. It has most wholesale houses, largest stocks, best opportunity for selection of goods, best prices.

New York is the Lowest-Priced Market in America.

A TRIP TO NEW YORK COSTS NEXT TO NOTHING.

By becoming a member of the Merchants' Association of New York (cost absolutely nothing, membership being obtained by filling out application blank furnished by the Association or any of the firms mentioned below) the Retail Jeweler gains all the great privileges this organization furnishes. Beautiful headquarters in heart of business district, with complete facilities for correspondence, etc., and exceptional opportunities to meet experienced merchants, contact with whom must increase one's commercial knowledge. Round trip costs members but one and one-third the single fare from your city or town. (That is if round trip at regular rate is \$12, the membership rate will be \$8.)

A TRIP TO NEW YORK IS A POST GRADUATE COURSE IN BUSINESS.

DATES OF REDUCED FARE:
September 1st to September 4th inclusive.
" 10th to " 14th "

Tickets good for 15 days from date of sale.

SEND FOR APPLICATION BLANKS TO

THE MERCHANTS' ASSOCIATION OF NEW YORK,

346 Broadway, Cor. Leonard St., NEW YORK, or any of the following members:

HAYDEN W. WHEELER & Co.,
2 Maiden Lane.

J. B. BOWDEN & CO.,
3 Maiden Lane.

LUDWIG NISSEN & CO.,
18 John Street.

MOUNT & WOODHULL,
26 Maiden Lane.

C. G. ALFORD & CO.,
195-197 Broadway.

CROSS & BEGUELIN,
17 Maiden Lane.

N. H. WHITE & CO.,
21-23 Maiden Lane.

AIKIN-LAMBERT JEWELRY CO.,
19 Maiden Lane.

GORHAM MFG. CO.,
Broadway & 19th Street.

HARRIS & HARRINGTON,
32-34 Vesey Street.

SPENCER OPTICAL MFG. CO.,
15 Maiden Lane.

WM. L. GILBERT CLOCK CO.,
37-39 Maiden Lane.

WE BUY OLD GOLD FOR CASH VALUE.

WE desire to call the attention of the Trade to the fact that all our plain rings are made by our own improved and patented process, of *One Piece of Gold*. They are *SEAMLESS* and contain *NO SOLDER*. They are perfect in shape and finish, and *CAN BE ALTERED TO ANY SIZE, Smaller or Larger*, without any danger of breaking or spoiling the shape, which cannot be done with *soldered* or *cast* rings.



The prices of our rings are no higher than those of inferior goods.

GIVE us a *SAMPLE ORDER*, and we will refund the money if goods do not prove satisfactory.

No Charge for *Special Stamp* on orders of 100 dwts. and over.

We will make our seamless plain rings from the *raw gold* to the *finished* in the presence of any of our customers.



35



337



305



234 1/2

ESTABLISHED 1849.

PECKHAM SEAMLESS RING MFG. CO.

Manufacturers of Solid Gold Plain and Engraved Rings,

NEW YORK.

FACTORY, 131 Liberty Street.

REORGANIZED 1892.

GOODS YOU NEED AT PRICES TO SUIT.

SOLE AGENTS FOR THE

"Regent" Adjustable Hand-Remover.

The best tool for Removing Watch Hands ever made.

NEW. PRACTICAL. LOW PRICED.



Patent applied for.

ITS ADVANTAGES:

Price, 50c. each.

The hands do not fly away as with using cutting pliers or other kinds of hand-removing tools.

The hands may be ever so hard set they must come off by using this tool. The dial never breaks, as the pressure comes even from both sides of the dial.

It can also be used for removing second hands. The price is low enough to enable every good watchmaker to have one.

FOR SALE BY ALL JOBBERS.

Our celebrated "REGENT BRAND" of specialties are still in great demand, and our guarantee to refund money in any case of dissatisfaction is unquestionable. Send us your orders and try them.

"REGENT BRAND"

	Per Gross.	Per Doz.
" Mainsprings for American Watches,	\$10.50,	\$1.00
" " " Swiss	10.50,	1.00
" Balance Staffs for American Watches,	7.50,	.75
" Balance Jewels	7.50,	.75
" Roller Jewels	1.50,	.15
" H and M Hands	2.00,	.20
" Second Hands	1.00,	.10
" Gilt Hat-Pin Stems, for Military Buttons,		.25
" Silver-Plate "		.25
" Rolled-Plate Dumb-Bell Button Backs,		.75
" Roman-Plate "		.85
" Solid Silver		1.00
" Aluminum Screwdrivers, set of five, per set,	35 cts.	
" Grooved Ring Gauges,	each, 75 cts.	

All of the above prices subject to 6 per cent. off for cash.



60 Metal Top Vials, \$1.50 extra.

Agents for the Hamilton Watch Co.'s Movements.

This handsome solid oak Cabinet FREE with your first order for One Gross of "Regent" Mainsprings.

Send for our

- { Pocket Price-List of TOOLS and MATERIAL for 1898.
 - { Pocket Price-List of WATCHES. Monthly.
 - { SILVER NOVELTY Catalogue.
- Send for ANYTHING and EVERYTHING in the Watch or Jewelry line.

CROSS & BEGUELIN, Importers, Exporters and Manufacturers, Watches, Diamonds, Jewelry, Silver-Plated Ware, Etc., 17 Maiden Lane, New York.

ESTABLISHED IN 1858.

FORTY YEARS' experience in manufacturing ALL KINDS OF JOBBING MATERIALS is a good record to offer, and, with unparalleled facilities, places our firm, unquestionably, at the head of this line of business.

We make a fine line of ALL KINDS OF BOWS. The following sizes and descriptions in Antique.



240

Solid Gold.
Solid Silver.
Seamless Filled.
Silverine.



241

Solid Gold.
Solid Silver.
Seamless Filled.
Silverine.



245

Solid Gold.
Solid Silver.
Seamless Filled.
Silverine.



250

Solid Gold.
Solid Silver.
Seamless Filled.
Silverine.



255

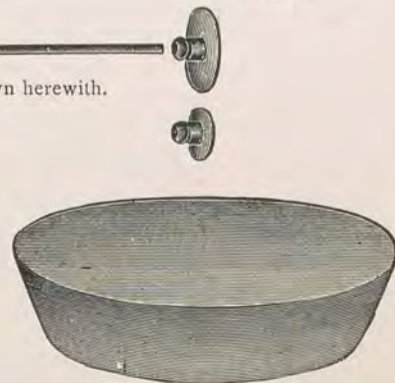
Solid Gold.
Solid Silver.
Seamless Filled.
Silverine.



260

Solid Gold.
Solid Silver.
Seamless Filled.
Silverine.

Illustration showing Steel Hat-Pin, Gold-Plated, for hard-soldering without pad and soft-soldering with pads, as shown herewith.



Polishing Compound.

Used in place of tripoli. Manufacturers are specially requested to try it.

Geo. H. Fuller & Son, Factory, PAWTUCKET, RHODE ISLAND. CHICAGO OFFICE, 103 State St., Columbus Memorial Building.

We make ALL KINDS OF SOLDERS, too—have made them since 1858. If you want a good article in that line, order the F 1858 Solder, from low karat to 22 karat fine, and you will pay no more for it than you would for a worthless article. Retail jewelers can get all the above articles shown of the jobbers; the jobbers and manufacturers, from us.

New York Letter.

(Continued from page 700 j.)

The Homan Silver Plate Co., of Cincinnati, Ohio, have opened a fine office and salesroom at No. 32 Park Place, where they are showing a fine line of their goods. The office has been handsomely fitted up, and is in charge of Mr. Charles J. Jacobs, who was the former manager of the firm's Chicago office.

R. Brandt, a well-to-do jeweler of Chester, S. C., was met on Maiden Lane a few days ago accompanied by his handsome bride of a few months. Mr. Brandt came to this city to make his fall purchases, and reports prospects as being excellent in his section. He had recently refitted his store, and is said to have one of the finest stores in his section. He formerly lived in this city for several years, and is, therefore, no stranger; but this was the first visit of Mrs. Brandt, who was delighted with the many interesting places and things to be seen.

The Merchants' Association was the first of the local organizations of business men to take appropriate action in regard to peace. It sent a letter to President McKinley congratulating him on his success in the conduct of the war. "By your calmness," the letter says, "your patience amid most exciting and exacting circumstances, your strong apparent determination to do fully and well everything which would help the cause of this country, you have been an inspiration, not only to the troops in the field and the men on the ships, but to the citizens who have remained at home watching your course daily."

The officers of the Jewelers' Security Alliance say that jewelers frequently excuse their neglect to join the Alliance by stating that they have some one sleeping in their store, and think they are, therefore, not in much danger of being robbed. The utter futility of such precaution was well illustrated in the case of Messrs. Jenkins & Co., of Exeter, Pa., who were robbed on July 27th, although they had two clerks sleeping on the premises. The burglars did not mind any little hindrance like that, however, for the young men woke up to find five masked men covering them with revolvers, and were obliged to submit to being bound and gagged, after which the safe was blown open with dynamite and the contents removed. A Certificate of the Alliance would have "nipped this scheme in the bud," as the burglars would have known that a term in prison would surely follow the robbery, and would not have attempted it, while the two clerks would not have run the risk of losing their lives, as would have been very likely to happen if they had resisted. Last month's addition to the membership comprised the following: C. A. Kiger, Kansas City, Mo.; T. Y. Maynard, Albuquerque, N. M.; Eugene P. Miller, Albany, N. Y.; H. A. Pease, Bozeman, Mont.; Courtois, Bush & Garrigues, Newark, N. J.; Carl Rappe, Watsonville, Cal.; Joseph Hummel, Jr., Muncie, Ind.; Bernard U. Tapken, New Brunswick, N. J.; Paul Foerster, Buffalo, N. Y.; Kautzmann & Skivington, Newark, N. J.; William S. Rowe, Allegheny, Pa.; B. I. Wehrle, Indiana, Pa.; E. F. Confarr, Livingston, Mont.; L. D. Hannan, Sparta, Tenn.; H. L. Chase & Co., Cedar Falls, Iowa; Fox & Fulmer, Easton, Pa.; A. McHenry & Co., Hornellsville, N. Y.; Reid & Todd, Bridgeport, Conn.; Wiesbader & Co., New York City; S. S. Wild & Son, Providence, R. I.; Kohn & Co., New York City; M. H. Swift, West Chicago, Ill.; H. Kirkpatrick, Le Mars, Iowa; S. W. Morgan, Winona, Minn.; George B. Chase, Le Roy, Ill.; Bruhl Brothers, Providence, R. I.; Graham & Moore, Seattle, Wash.; M. Dorenfield Jewelry Co., Corsicana, Texas; Isaac Dornberg, Spokane, Wash.; Hollis S. Howe, Concord, Mass.

Averbeck & Averbeck, report a large number of out-of-town jewelers, among their visitors during the past two weeks. Most of these came on the Merchants' Association excursions. Of course all wanted to buy, more or less. They all seemed imbued with the prevailing feeling of a good trade during the coming months, and ordered bigger bills than they have for years. Averbeck & Averbeck made a special display of their silver novelties for the benefit of these out-of-town buyers, with good results.

The William B. Durgin Co., silversmiths, of Concord, N. H., have opened an office in the Hartford Building, 41 Union Square, where they will show a complete line of their goods. The office is in charge of H. H. Hamilton.

Chas. Rose, maker of miniature portraits, has moved his studio and workroom from 192 Water Street to 108 Fulton Street, a more desirable location and more convenient to the jewelry trade.

Byron L. Strasburger, the Maiden Lane importer, started last month on a trip to the Pacific coast, including stops in all the principal cities. The trip will occupy six weeks or more, and is the first Mr. Strasburger has made for some time. He is well known to the trade, however, as a result of his earlier traveling. The rosy reports of trade outlook in the West, so much talked about in the East at present, led the head of the concern to make this trip, instead of entrusting it to one of the traveling force.

Edmond Sussfeld, of Sussfeld, Lorsch & Co., returned from Paris recently, where he had been visiting his parents for a month or more.

Judge Lacombe, of the United States Circuit Court in this city, on July 27th, handed down a decree in the action brought by the American Waltham Watch Co. against Albert Uhse. The decree, which is entered by consent, grants a perpetual injunction restraining the defendant, his agents, etc., from

(1) Further selling, advertising or giving away watch movements inscribed with the words "Waltham" or "Waltham M. ss.," unless such movements shall have been made by the American Waltham Watch Co.

(2) Further selling, advertising or representing as Waltham watches any movements except they be made by the complainant company.

(3) Using the phrase Waltham watches or the word Waltham, with or without the prefix Columbia or any other prefix whatever, in connection with or describing, advertising or selling watches or watch movements, except as to movements made by the American Waltham Watch Co. No profits, damages or costs are awarded by the decree, which is made final.

This action is one of several of a similar character brought by the American Waltham Watch Co. against retail jewelers. The bills of complaint, which are alike in all cases, after reciting in brief the history and development of the American Waltham Watch Co. and their trademarks since 1854, the millions of dollars spent in advertising their product as Waltham watches, etc., go on to allege that certain persons have sold and are selling watches made in imitation of the American Waltham Watch Co.'s productions and bearing on the plates and cases the words, "Columbia Watch Co., Waltham, Mass., U. S. A."

In reference to the above decree, the representative of the Columbia Watch Co. has sent us the following statement: "The injunction issued was by consent of the defendants; the decree was granted without argument, there being no defence made, and the costs were paid by the plaintiff. The American Waltham Watch Co. has recently brought suit against a number of dealers in New York City, one of which our company proposes to defend when it comes to trial in the United States Circuit Court in September."



O. G. Fessenden.

At a recent meeting the nominating committee, appointed by the president of the New York Credit Men's Association, nominated for president of the Association, O. G. Fessenden, of Hayden W. Wheeler & Co. Mr. Fessenden is an accomplished credit man, and has taken a leading part in the affairs of the Association. He is one of the most popular members of the New York jewelry trade and is a prominent member of their various organizations.

Rough Rider Lieutenant Tiffany Dead.

Lieutenant William Tiffany, of New York, son of the well-known family, and famous for his service throughout the Santiago campaign with Roosevelt's Rough Riders, died at the Parker House, Boston, Mass., on August 25th. Lieutenant Tiffany was seized with fever in Cuba after Santiago's surrender. When the Rough Riders sailed for Montauk he was left in the hospital, but later came North on the *Olivette* and landed in Boston. He seemed to improve for a few days, but suddenly changed for the worse, and all efforts to save his life were unavailing. Columbia sheds a tear over the grave of the young patriot-soldier.

Death of Captain D. B. Hamilton.

A prominent and highly respected member of the trade and an ideal citizen of this great country, has passed away in the person of Captain David B. Hamilton, who died at his home in Waterbury, Conn., on August 14th. Captain Hamilton was president of the corporation of Rogers & Brother, and father of Charles A. Hamilton, of the Rogers & Hamilton Co., manufacturers of silver-plated ware, Waterbury, Conn., and at the time of his death was seventy-four years old. He was born in Danbury, Conn., in 1824, and after completing his education he was for a time a teacher in Hartford and Wethersfield. Later he began a course of study for the ministry, subsequently engaging in the study of law; but he soon discovered that business was his vocation. In 1853, when the Rogers Brothers organized a company for the manufacture of silver-plated ware, he became their salesman. In 1858, when Asa and Simeon Rogers went to Waterbury to establish the firm of Rogers & Brother, he went with them. Since that time he has been a resident of Waterbury and identified with that and others of its prominent concerns. He enlisted as a soldier in the Civil War and after considerable service he was commissioned first-lieutenant in the Connecticut Volunteers and promoted to captain in 1862.



Captain David B. Hamilton.

January 10, 1863, Mr. Hamilton was honorably discharged from the service for disability, and immediately resumed his connection with Rogers & Brother, of which he was secretary from the incorporation of the business until 1865, when he was elected treasurer, and for a number of years has been president and treasurer as well.

Captain Hamilton was interested as stockholder, officer or director of many concerns in Waterbury, among them being the Manufacturers' National Bank, of which he was president since its incorporation in 1881, and he was also president of the Waterbury Lumber and Coal Co. since 1883. Among the many concerns in which he was director are: The Wm. Rogers Mfg. Co., Hartford; Meriden Britannia Co., Meriden; Bridgeport Brass Co., Bridgeport. A staunch Republican, he found time to take an active part in politics, and filled many municipal offices. He was senator for the fifth district in 1881, and served his city as councilman, alderman and selectman.

Captain Hamilton was a man of extraordinary business capability, sterling integrity and restless energy. He had great force of character and a marvelous capacity for work, and his earnestness in everything earned the respect of all who knew him. He was the type of man who made not only Waterbury but our country what it is.

Death of Mathew J. Fagain.

Mathew J. Fagain, of Fontneau, Cummings & Fagain, Attleboro, Mass., was drowned on August 21st. The accident took place while the Atlas Social Club was on an excursion to Seaconnet Point, R. I. On the return sail Mr. Fagain was leaning against the rail with a friend when the rail gave way and he was precipitated into the water. Mr. Fagain was an excellent swimmer, and why he succumbed so quickly is surprising. His partner, Mr. Cummings, lowered a boat and leaped in, only to have to be rescued himself, as the boat leaked. Two others then dived and swam to Mr. Fagain. When they reached him he was dead, or so nearly so that he never revived. Mr. Fagain's death is greatly regretted. He was considered one of the finest manufacturing jewelers at the bench in the Attleboros.



Artistic Lines

of

China Novelties

and

Bric-a-Brac.

New Rich Patterns in

American Cut Glass.

Latest Effects in

Lamps.

Especially selected for the jewelry trade.

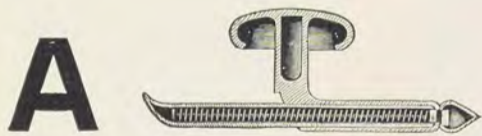
Write for our New Cut-Glass Catalogue, No. 91.

Burley & Tyrrell

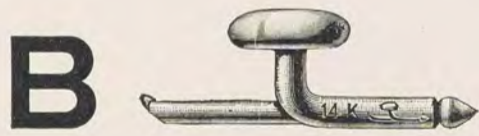
42-44 Lake St., Chicago

A RESTLESS DETERMINATION to overcome every objection to the spring-back stud has kept us **THINKING**, and the result of our thought is the production of a **NEW SPRING-BACK STUD** that fills absolutely every requirement of a shirt stud, thus placing us far in advance of the position we have always held as **THE LEADING MANUFACTURERS OF SPRING-BACK STUDS.**

DEALERS AND THEIR CUSTOMERS will be quick to see the advantages of our improvements. It's as plain as **A, B, C.**



A—By placing spring inside of pin or piston (not outside as all others are made) we can make pin twice the usual length and more rigid because of larger diameter.



B—By placing post in center of back makes our stud suitable for any style shirt with either button holes, eyelet holes or a combination of the two without annoyance of working out or fear of loss.



C—By pointing pin at one end and rounding the other end makes stud easy to insert, and gives flush joint when drawing piston, adding support where greatest strength is necessary.

IN SHORT—AS A STEM WIND WATCH IS SUPERIOR TO A KEY WIND SO IS THE NEW LARTER STUD SUPERIOR TO ANY OTHER STUD MADE.

WE WILL PROTECT OURSELVES AND THE DEALERS WHO USE THESE STUDS FROM COMPETITION BY LETTERS-PATENT FOR WHICH WE HAVE APPLIED.

MADE IN 14 K. GOLD IN ONE HUNDRED AND SIXTY DIFFERENT DESIRABLE PATTERNS AND SIZES.

LARTER, ELCOX & CO., 21 AND 23 Maiden Lane, New York.

Philadelphia Notes.

The buyers' excursions to this city, engineered by the Trades League, were taken advantage of by a large number of retail jewelers in the commercial territory tributary to Philadelphia, and the excellent fall prospects were indicated in the liberal purchases of goods made by the visitors. All expressed their confidence in a voluminous fall trade, and an indefinite period of prosperity is hopefully looked forward to. Local retail business has been of the between-seasons variety, but a material improvement is expected during the present month.

The members of the Philadelphia Jewelers' Club and guests will enjoy a reed bird dinner at Essington this month. The necessary arrangements have been made by a dinner committee consisting of Louis P. White, A. J. Lee and William G. Earle. The club is considering the question of new quarters, but has not yet come to a final decision.

G. H. Mayer, of George Mayer & Co., manufacturing opticians at 134 South Eighth Street, recently returned from a visit to the optical factories in Southbridge, Mass. Walter Mayer, of the same firm, is again at work after a short vacation at the seaside.

The new store of E. Bailey, of Eighth Street, is now completed, and Mr. Bailey has just moved into it again from his temporary quarters at 716 Chestnut Street. The new store is very handsome.

Wm. P. Sackett, manager of the jewelry store of John Wanamaker, returned from Europe on the "Lucania," of the Cunard Line. He reports a comparative dearth of new patterns in the foreign markets, owing to the fact that the Europeans anticipated a diminished trade with this country on account of the expected prolongation of the war. Mr. Sackett, while abroad, made extensive purchases of novelties for the fall and holiday season.

Wm. H. Freeman, a prominent jeweler of West Chester, Pa., died of apoplexy on August 1st. His death was unexpected and came as a great shock to his friends. W. H. Freeman, Jr., his eldest son, will carry on his father's business. Mr. Freeman, Jr., is the third generation to conduct the business, as the deceased succeeded his father, who was also a jeweler.

Edmund J. Stager, buyer of artistic bric-a-brac for Bailey, Banks & Biddle Co., died last month of appendicitis. The deceased made annual purchasing trips to the markets of Europe, and was considered one of the best judges of bric-a-brac on either side of the ocean. He was a young man of sterling integrity, gifted with unusual business capabilities, breadth of view and initiative. A brilliant business career seemed assured to him when death cut it short, to the deep regret of his friends and his employers. He was a gifted and talented vocalist and very popular in musical and social circles. He was also an accomplished linguist, speaking French and German fluently.

The Princeton Club, of this city, are to present to the gunboat "Princeton" a handsome punch-bowl and ladle made by Hamilton & Diesinger, the well-known silversmiths. The bowl cost \$400 and is silver, lined with gold, twelve inches tall by fifteen in diameter and mounted upon an ebony vase. Upon one side of the bowl is shown old North College surrounded by a clump of trees at Princeton. Above it is old Nassau's coat of arms, orange and black, enameled on a shield. The bowl's neck is guarded by four tiger heads, and about the base is entwined a cable thrown in coils at intervals. The bowl is very handsome and attracted much attention while on exhibition in the window of the makers.

Wright, Tyndale & Van Roden, fancy china and bric-a-brac dealers, formerly of South Eleventh Street, are now in their new store at 1212 Chestnut Street, where they have more capacious quarters and increased business facilities.

It has recently come to light that in the office of the Commissioners of Fairmount Park, in the City Hall, the flight of time is marked by a genuine Rittenhouse clock, which has an interesting history. About the year 1880, when Independence Hall was being subjected to one of the periodical cleanings which have befallen from time to time, this old clock was unearthed in a dismal corner of the basement. It was covered with dust and mould, and had long since ceased to tick. The late William Dixey, who died about a month ago, and who was Commissioner of City Property at the time of the finding of the clock, recognized the value of the old timepiece. The genuine Rittenhouse clock has a high intrinsic as well as sentimental value. This clock, which is said to be a genuine Rittenhouse, must have been constructed before 1796, for in that year occurred the death of David Rittenhouse, Philadelphia's great mathematician and astronomer. This clock probably marked the

hours for the patriots who assembled in the old State House to sign the Declaration of Independence, for Rittenhouse had been making clocks from the time he was seventeen years of age. Mr. Dixey had the clock thoroughly cleaned and repaired. It was eventually removed by his orders to the office of the Commissioners of Fairmount Park, where it now stands.

The Johnson Temperature Regulator Co., Milwaukee, Wis., which was awarded the contract for the clock for the tower of the Public Buildings, is now at work on the monster timepiece, and it is expected that it will be completed by December 31st, or thereabouts.

Sol. Sickles, of M. Sickles & Sons, has started on a trip with a line of samples that will make him a welcome visitor among the trade.

Oliver C. Hess, 1827 Ridge Avenue, has returned from a long pleasure trip, in the course of which he visited Baltimore, Washington, D. C.; Pittsburg, Cleveland, Detroit, Niagara Falls, etc. He feels much benefitted in health, and reports business conditions in the country traversed as excellent. Mr. Hess has fitted up an up-to-date workroom and repair department in his store, and has employed an expert mechanic for the repair of watches, clocks, jewelry, etc.

Points About Traveling Men.

J. Segal, with L. Black & Co., Detroit, Mich., has started on his fall trip with a full line of samples, and is now in Michigan. H. B. Kline, with the same firm, is on an order-taking campaign in the Western States.

S. C. Rebman, formerly with Rodney Pierce Optical Co., Pittsburg, Pa., is now representing D. V. Brown, of Philadelphia, in the Southern States.

A traveling man may enjoy a "roast" at the hotel dining table, but never from the house.

"If you don't sell to your trade somebody else will." Therefore, take a back seat for no one and you will accomplish what you are sent for—to make sales.

If everybody would make a success of the road it would be an unhappy world—for half the joy of success is, alas, in the thought that we are smarter than our competitor.

The hotel setting the superior table, having the most conveniences and conducted in the most liberal manner secures the custom of the commercial traveler. The old-time hostelry and its landlord may have attractions for the day dreamer but not for the man of samples. Hotel owners who desire the patronage of the knights of the grip must keep up with the times and not attempt to conduct an old worn-out hotel under old-fashioned methods, in competition with the first-class modern institution.

T. R. Wall, the well-known Northwestern traveler, left Chicago early in last month for an extended trip over his territory. He is handling this season the lines of the Geneva Optical Co., Chicago; the Waterbury Clock Co.; Crescent Ring Co., and the Madison & Buck line of gold pens. Mr. Wall goes out feeling much encouraged over the prospects for a good fall trade.

L. W. Melchor, Eastern representative, and James C. Hutson, Western representative, of F. A. Hardy & Co., both left Chicago the middle of last month on their first fall trips.

Fred. Strang, who formerly traveled out of Cincinnati, later for a New York house, and latterly in the jobbing business for himself at Cleveland, has made an engagement with B. F. Norris, Alister & Co., of Chicago. He will cover Indiana and Michigan, and is now out on his first trip.

C. A. Richardson, Western representative of the C. L. Merry Optical Co., Kansas City, has been out the past month over his territory. He has enjoyed an unusually good business.

James Brown, of Geo. B. Barrett & Co., Pittsburg, started out early last month on his first fall trip.

H. G. Smith, of Chambers, Inskip & Co., left Chicago late in August for an extended trip over Western territory.

Jacob Swartchild, Eastern traveler; Joe Bloch, Western traveler, and Eugene Jewels, Northwestern traveler for Swartchild & Co., all left Chicago the middle of August for extended trips over their respective territories.

Chas. N. Sheldon, representing the C. L. Merry Optical Co., Kansas City, Mo., has been out over his territory for the past month, sending in some nice orders. Mr. Sheldon reports good business in his section.

F. E. Jack, of the Queen City Silver Co., Cincinnati, will show their new fall line among the trade of the Buckeye State during the present month. Jewelers whom Mr. Jack may call upon will find him a pleasant gentleman to meet and a bright salesman.

D. H. Raymond, Western traveler for the Queen City Silver Co., Cincinnati, has been doing nicely the past month in an extended trip over the Western country. His orders show he is finding fairly active demand for his new fall line.

F. W. H. Schmidt, material jobber, Chicago, is out among his customers the present month. Mr. Schmidt finds trade on the up-grade this fall and is feeling encouraged over the outlook.

C. P. Lindley is dead. He was undoubtedly the oldest traveler in the United States, that is, had been more years on the road as traveling salesman than any other man who can now be called to mind. Mr. Lindley started as a peddler of Yankee notions, laying in supplies in New York City, one of the original bills of purchase bearing date of 1837. Previous to embarking in the silver-plated line, Mr. Lindley was for many years employed as commercial traveler by the Benedict & Burnham Manufacturing Co., Waterbury, Conn. In 1883 he was the Chicago manager of the Western salesroom of the Terry Clock Co. and Holmes & Edwards Silver Co. There was hardly a house in the Western trade in those days to whom Mr. Lindley and his fund of anecdotes were strangers.

Patrick Walsh: The traveling man is a generous citizen. So far as his means permit, he gives to the widow and orphan, and the left hand rarely knows what the right does. Traveling men are law-abiding citizens; you seldom find them under arrest for committing unlawful acts, although some men who are arrested claim they are traveling men in order to conceal their identity. No political party has the traveling man's vote in his pocket. The traveling man thinks and votes for himself; he votes for what he considers the happiness and prosperity of the country, because he realizes that the welfare of the nation is his welfare.

Deserved Better Treatment.

Here is a story told recently and vouched for as a fact: A bright young man, who had been seeking work for some time in Chicago, finally applied for a position as salesman for a new wrench which a Chicago concern had recently put on the market. He arranged with the firm on a basis of salary and expenses and started out to sell wrenches.

The night of the day on which he was employed found him on his way to St. Louis, and on his arrival next morning he ate breakfast and began to work the hardware trade in the interests of the wrench. One large firm in St. Louis liked the new tool especially well and inquired his prices on large lots, finally agreeing to take the entire output of the Chicago factory for five years. The salesman apprised his employers of his success and they replied:

"You have succeeded admirably in selling the entire output of our factory upon such satisfactory terms. Please accept our congratulations. Since our output is disposed of, we shall, of course, no longer require your services.

"Wishing you every good fortune, we remain,
Very truly yours,

The young man is again in Chicago looking for work.

The Drummer's Balance Sheet.

In one of its recent Sunday editions *The Boston Post* published an article by George H. Donohue, entitled "The Drummer's Actual Balance Sheet." It is a cruel but laughable satire upon commercial travelers, especially this pretended recapitulation of the traveling man's diary:

Miles traveled, 2,250; number of trunks, 2; shown samples, 61; sold goods, 34; been asked the news, 56; told the news, 3; lied, 53; didn't know, 20; been asked to drink, 1,811; drank, 1,811; changed politics, 17; changed religion, 3; daily expenses allowed by house, \$9; daily expenses, actual, \$6; been to church, 17; accompanied girls home from church, 17; girls flirted with, 42; agreed to marry, 2; expected trouble with, 1; kicked out of the house, 2; left by back door, 3; dodged fairs on railroads, 5; number of persons cheated, 34; tried to cheat, 61; hats ordered, 3; suits of clothes made, 2; goods sold for other firms, \$5,600; commissions from rival firms, \$280; salary, \$6 per day for forty days, \$240 money put in savings bank, \$500; cash on hand, \$70; got drunk, 11; badly broken up, 2; skipped out on hotel keepers, 4; ladies' umbrellas bought, 6; ladies' umbrellas given away, 6; number days actual work, 32; number days charged firm, 40; light wagons stove up, 2; attended horse races, 11; made on bets, \$89; lost on bets, \$55; my actual profit for forty days, \$640; firm's actual profit for forty days, \$610.

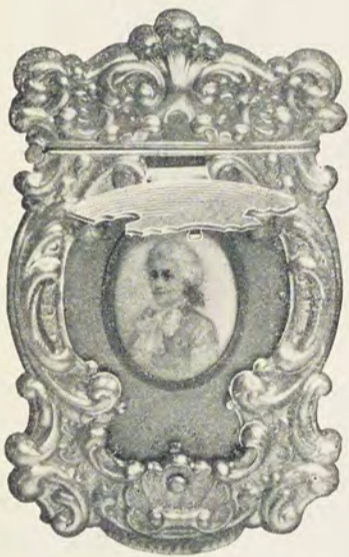
There are a lot of other things in the article not quite so funny, and equally prolific in misrepresentation.

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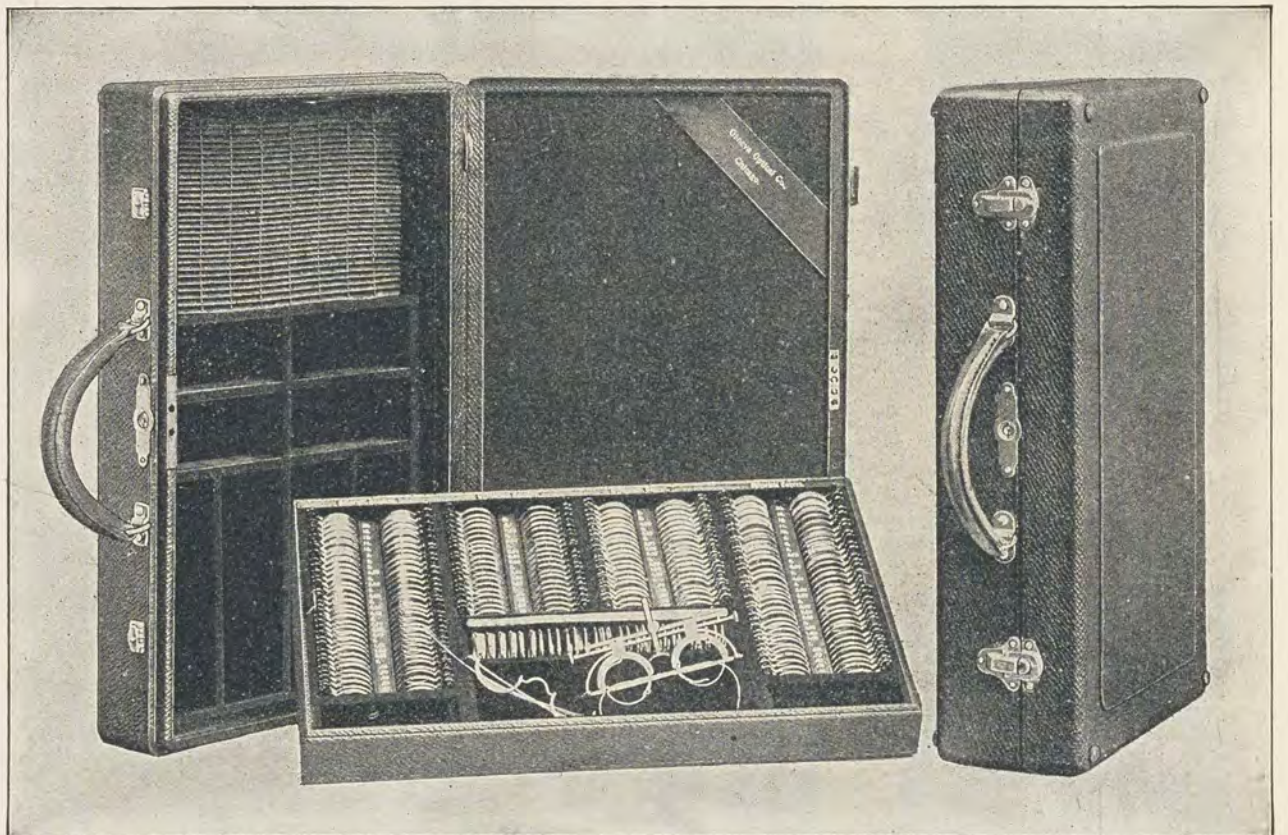
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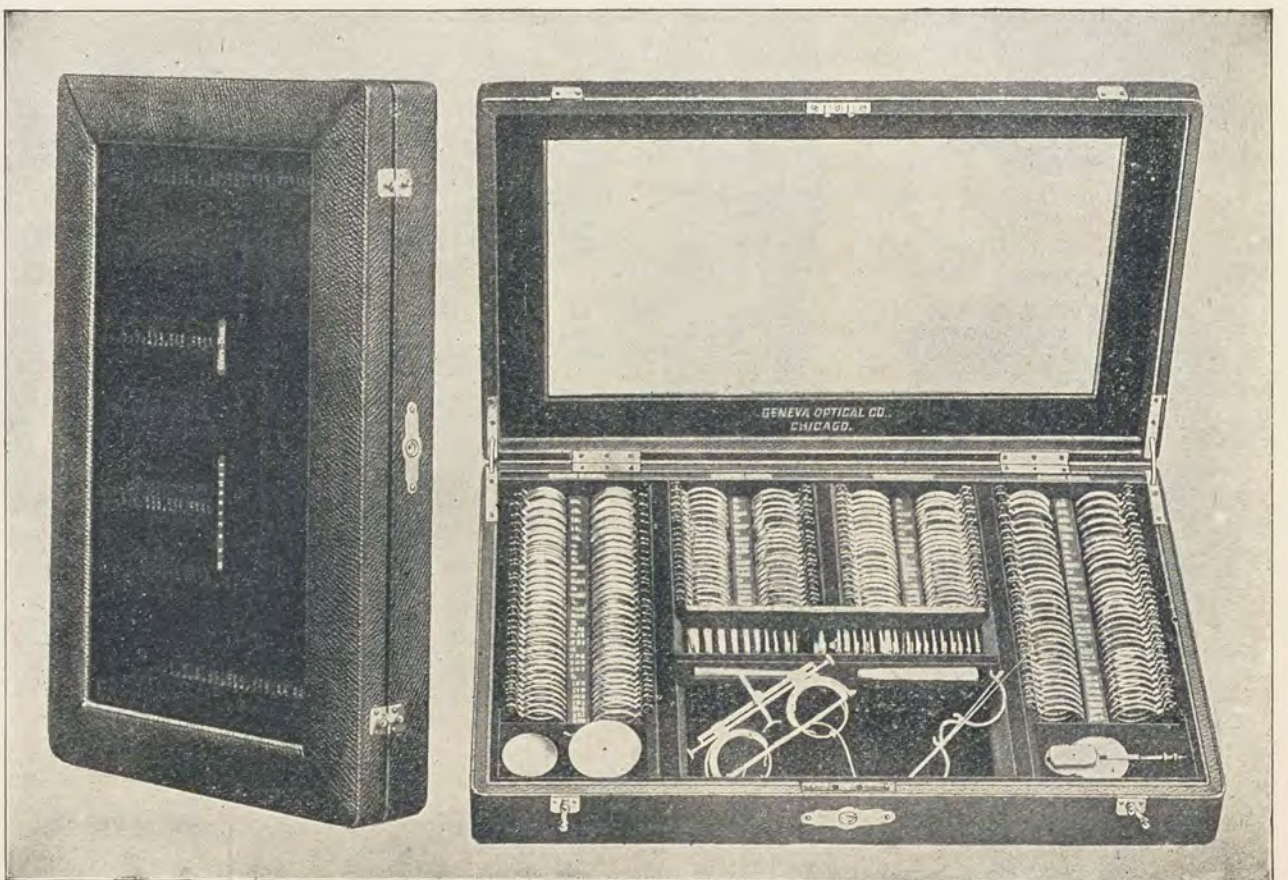
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Reviews of Current American and English Ophthalmological Literature.

Visual Acuity and Civilization.

It has been often asserted that our civilized life reduces the visual acuity of the human eye, and there can be no doubt that there are many facts to prove this assertion. Thus we find that most of the alphabets in the Russian army, who, by the way, make up eighty per cent. of it, have a visual acuity exceeding the normal measure. To a still higher degree this may be observed in wholly uncivilized races, as with the negroes and especially with the Indians. Alexander von Humboldt relates that his friend Bonpland, when he made an ascent of the volcano Pinchinchan, could still be perceived by the Indians, although they were about sixteen miles away. Putting the normal visual acuity equal to unity we obtain the following numbers for the average vision of different nations: Indians 5, Sudan-negroes 3, Russian guard $1\frac{3}{4}$, German artillery $1\frac{2}{3}$, German infantry $1\frac{1}{2}$. But those of the German soldiers who came from the better and more educated classes showed a visual acuity of only $\frac{3}{5}$. With regard to the different professions the following sequence has been observed, beginning with those having the highest visual acuity: Peasants, workmen of the cities, firemen, tailors, printers, students and musicians. While thus our initial sentence would seem to be well proved, we must not forget on the other side those words of Donders: "A test of vision is also a test of intelligence." How far a visual act is also an intellectual one can be easily demonstrated to any one by telling him to cover the lower half of a line of printed words. He will then be able to still read the line as before, though the lower half of the print is invisible; because the visible upper half allows him to guess at the lower part by a mental act which latter depends largely on our memory and faculty of combination. In the same manner the illiterate man has usually trained his mind to use the slightest far object visible for his visual conclusions. The city clerk might get from the small distant object a retinal impression just as well as the Indian, but to the former it makes no conscious mental impression, while to the latter it starts a series of very important mental and bodily movements. In this way it would seem we have to modify the first statement about the deterioration of the visual acuity with advancing civilization. For there can be no doubt that for certain near objects the visual acuity of the civilized man would far outstrip that of the uncivilized. For example, a microscopist would see many things on his stage which an Indian would not see at all unless after long experience. A great deal depends here upon the training of our mind, which, in the case of the uncivilized, has learned to perceive two neighboring points as two long before the mind of the civilized does so, because the latter, by his occupation, has not been forced to thus train himself. This seems to be the explanation of the facts before mentioned, for otherwise we could only explain this phenomenon by the assumption that the perceiving retinal elements in the uneducated were nearer together than in the educated, of which we have not the slightest proof, and which, to say the least, would seem very unlikely. We would say, therefore, in conclusion, that the uncivilized have a higher visual acuity for distant objects, not because they usually have a better visual apparatus, but because, by the necessities of their lives, they have been obliged to train their minds to perceive finer dif-

ferences in neighboring retinal impressions received from far objects.

This opinion is strengthened by the recent researches of Dr. Ranke, of Munich, which came to the notice of the writer after the foregoing lines were written. This student tested some Indians and found that they see no further and no more distinctly than the average citizen of London or New York. He also believes that it is not so much a question of how far one sees as what one sees, and how he interprets it, and that by training the Caucasian may attain equal skill in the use of his eyes.

Day Blindness and Night Blindness.

In the June number of the *Ophthalmic Record* Dr. Hiram Woods speaks of the ocular symptoms of tabes dorsalis or locomotor ataxia, and in describing the particular symptoms of one patient with this disease mentions that he complained of dimness of sight as soon as the sun rose. This patient stayed in the house until evening, if the day was bright, because he could not see well enough to trust himself out of doors. As our readers probably all have had cases in which this symptom was complained of, we will devote a few lines to this *day blindness* and its opposite condition, rather more frequent, *night blindness*.

Now, day blindness, as just stated, is that condition of the visual apparatus in which the eye is unable to see well at daytime but can see better in diminished light. In children we find this condition as a reflex symptom in severe types of inflammation of the conjunctiva, especially if the general system is below par. Here it is the pain on exposure of the eye to light that makes day vision so difficult. We also observe day blindness in cases in which there are central opacities in the media of the eye, especially in the lens. Here, of course, we have to do with a simple physical phenomenon; for, in the bright light of the day, the pupil is comparatively small and allows very little light to pass by the central lenticular opacity, while in the evening the pupil becomes larger and more light can now enter through the clearer lenticular parts, formerly shut off by the narrow pupil. But there is another form of day blindness—idiopathic day blindness—which is due to a defect in the posterior portion of the globe. Of this day blindness, Knies, in his excellent book, "The Eye in General Diseases," says: "This is observed when, for any reason, an abnormal amount of light enters the eye—or in imperfect pigmentation of the fundus oculi—and also in certain diseases of the retina and the optic nerve. In all these cases the efficient factor seems to be the insufficient restitution of the material employed in the act of vision, this being sufficient only when the action of the light is diminished. The diminished nutritive changes, which have become habitual in those parts of the retina which are sensitive to light do not suffice in bright daylight." Knies speaks here only of an insufficient restitution of the photo-chemical material in the retina, but it is also possible to have an excessively destructive change in this photo-chemical substance by the light, such that the normal nutritive processes would not suffice to build up again the destroyed material. Here we would have then a kind of oversensitiveness or hyperæsthesia of the retina, which expresses itself as it were in undue chemical explosions in the retina.

This would be a condition opposite to that in night blindness, where we seem to have a kind of torpor of the retina. This anæsthesia or insensitiveness of the retina makes it impossible for the eye to see well at night, as then the amount of light entering the eye is not great enough to bring on such changes in the less sensitive photo-chemical substance as are necessary to excite the nerve-fibres. It may be also assumed that in some cases the photo-chemical material was not always present in its necessary amount, for that is what

actually must happen in normal eyes if, after exposure to the bright daylight, they first cannot see in a darkened room. This physiological night blindness would seem to be due to the fact that the vision in the bright light had destroyed the photo-chemical substance, and not enough time had elapsed to build it up again. After some time this substance is restored again to its former amount and vision can go on even in the darkened room. Idiopathic night blindness occurs especially if the individual is suffering from some weakness and comes on even in good eyes if they be subjected continually, day after day, to a more than usually intense light, such as is reflected from the surface of the sea or plains in tropical climates or from snow fields. Another form of night blindness is observed in persons suffering from a disease of the choroid. It will be evident to our readers that such cases of day or night blindness as are not caused by apparent physical factors (for example, the day blindness due to central opacities in the lens), but are produced by some obscure disease, ought to be sent to an ophthalmologist for diagnosis and treatment.

The Oculist's Vade Mecum.

This little book of sixty-three pages, which is published by the optical firm Ferguson & Weston, deserves more than a passing notice in these columns. It is edited by Dr. J. Wallace, and contains the following articles by more or less prominent ophthalmologists: A description of Jackson's test for muscle balance at the working distance; Dr. Hansell's description of the cobalt glass test for heterophoria; Dr. L. Ziegler's Greek cross test object for muscle balance; Dr. S. D. Risley's practical methods for determining the ocular balance; Dr. Wallace's test of the combined effect of two prisms and of two cylinders; Dr. Jackson's table of the prismatic effect of the decentration of lenses, and another by the same author giving the equivalents of prism degrees, prism dioptres and prism centrad; Dr. Ziegler's prism scale; Dr. Harlan's description of toric lenses; Dr. Thorington's note on skiascopy; Dr. Carpenter's summary on subjective and objective methods of measuring ametropia; Dr. Posey's note on the detection of simulated monocular blindness; Dr. Zimmerman's light-screen, and Dr. Stevens' note on the ophthalmometer and its clinical use. Of course there is nothing new in these articles, but their juxtaposition and condensation makes them very valuable for the busy student of the art of refraction. The tables are reliable, and only a few errors were observed, as, for example, on page 46, where a 50 centrad prism is put equal to a 36.03° prism in degrees, while it ought to be 35.89°; or, on page 48, where + 1. Cyl. ax. 90° ⊙ + 1. Cyl. ax. 15° is said to be equivalent to + .75 D. ⊙ + .87 Cyl. ax. 52½°, whilst the cylinder ought to be only 0.50 instead of 0.87.

The greatest value, however, of this booklet would seem to be in the great number of test-types to be used in reading tests, and especially for obtaining the real punctum proximum or near point in young people. For it is well known that the print usually employed to determine the amplitude of accommodation is much too large, so that it can still be read without the eye being perfectly accommodated for the distance at which it is held. For example, the smallest print usually employed is one the letters of which at 25 centimeters obtain a visual angle of 5 minutes. An emmetropic eye, therefore, does not need to possess more than 4 dioptres of accommodation to be able to read such print, and still it is often employed to determine exactly the presence of 8 or 10 dioptres, where the print ought to be much smaller. To partly remedy this defect there has been added in this book a print which makes a visual angle of 5 minutes at 15 centimeters, and

(Continued on page 705.)



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Dear Sir:—We are in receipt of your favor with Rx. order enclosed. We would be pleased to fill same for Dr. Cherryholmes, who is a customer of ours, but as we do no retailing, we could not furnish them to you direct; if we did, we would be entering into direct competition with our customers. We hold same awaiting your instructions.

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JOHNSTON OPTICAL CO.

JOHNSTON OPTICAL CO., Detroit, Mich.

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W. K. CHERRYHOLMES, M. D.

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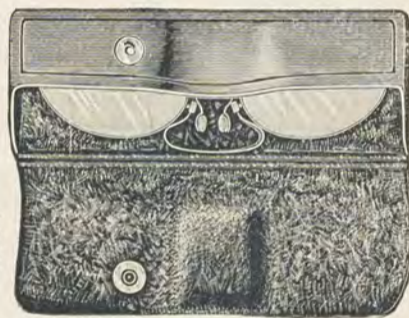


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GOLD RIDING BOW FRAMES.			Per piece
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No. 529.	14 K.	" "	2.25
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No. 531.	10 K.	" "	1.95
No. 532.	14 K.	" "	3.00
No. 900.	8 K.	extra heavy weight	1.95
No. 901.	10 K.	" "	2.25
No. 902.	14 K.	" "	3.25
No. 01.	8 K.	" " cable temples	2.35
No. 02.	10 K.	" "	2.65
No. 03.	14 K.	" "	4.00

ALUMINICO STRAIGHT AND RIDING BOW FRAMES.			Per doz.
No. 1432.	Oval eye wire, light weight, round temples, saddle nose piece, closed tips.		\$2.30
No. 1433.	Same as above, with open tips		2.50
No. 1434.	Oval eye wire, extra light weight, saddle nose piece, riding bow temples.		\$2.20
No. 1435.	Same as above, with solid gold filled nose piece		3.00

GOLD STRAIGHT TEMPLE FRAMES.			Per piece
No. 533.	8 K.	medium weight	\$1.90
No. 534.	10 K.	" "	2.20
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No. 536.	8 K.	heavy	2.00
No. 537.	10 K.	" "	2.40
No. 538.	14 K.	" "	3.40

GOLD EYE-GLASS FRAMES.			Each
No. 543.	8 K. oval eye wire, lined nose guard, fancy engraved adjustable handle, medium weight		\$1.90
No. 544.	10 K. same as above		2.20
No. 547.	14 K. same as above		3.00
No. 010.	8 K. oval eye wire, patent offset, cork-lined guard, adjustable handle, medium weight		1.50
No. 545.	Same as above, heavy weight		1.75

ALUMINICO EYE-GLASS FRAMES.			Per piece
No. 014.	Aluminico, one eye, oval eye wire, adjustable spring guard, patent cork-lined nose pieces		\$2.50
No. 015.	Same as above, with offset guard		2.50

GORDON & MORRISON, Manufacturing Opticians, 178-180 East Madison St., CHICAGO, ILL.

The Oculist's Vade Mecum.

(Continued from page 703.)

allows therefore to be sure of about 7 dioptries of accommodation. But it cannot be said that the difficulties in clearly producing such fine letters have been overcome entirely, for the 15-centimeter print is very defective in its details if looked at with a magnifier. Neither is the size always correct. In the most important page in this regard (page 9) all the types are slightly too large (by 0.04 mm.), with the exception of the 50 cm. print, which is very good, and of the 75 cm. type, which is much too large, because it is 1.4 mm. instead of 1.09 mm. The same 75 cm. print on page 11 is quite correct. Very valuable is also the addition of German, Hebrew and Italian types; though we would advise to reduce the Hebrew letters materially, as they are all too large, and some even more than twice the size required by the distance. Indeed, the special type for 1.50 meters, on page 29, is just about three times too large, being 65 mm. instead of 218 mm. But, in spite of these little defects, we consider this booklet quite a desirable addition to the outfit of the practicing optician.

"The Oculist's Vade Mecum," from which the above extracts are taken, can be had from THE KEYSTONE office on receipt of the publisher's price, \$2.00.

Ametropia and Muscle-Imbalance in Young Children.

In *The Philadelphia Medical Journal* (May 21, 1898) we find an interesting article by its versatile editor, Dr. G. M. Gould. In treating the subject of ametropia and heterophoria in young children the author is somewhat of an enthusiast, but enthusiasm is certainly necessary to impress the world with a subject the importance of which at present is undoubtedly underrated. He especially lays stress upon our "duty of catching the disease-process before it is irremediable. Every year, every month of the child's life that pathogenic ametropia is operative is the most precious of all wasted opportunities. When the plastic tissues and incipient habits are in their early formative stages everything may be hoped and attempted. With every year lost the possibility of cure becomes less and less."

What brilliant results may be obtained in children he shows by the histories of twenty cases, a few of which we will reproduce here:

CASE I.—Howard N. was thirty months old when brought September 13, 1897, the mother having noticed turning in of the left eye when the child looked at pictures, toys, etc. Under a mydriatic the eye came straight. By retinoscopy his error was estimated to be + Sph. 4.00 in each eye, with no astigmatism discoverable. Sph. + 3.00 lenses were ordered, since which the child's squint has entirely disappeared while the glasses are in place, but returns if they are removed. If his mother forgets to put his glasses on, the child asks for them at once.

CASE XV.—Since 1890 I have retested many times the eyes of W. P. (Case 923), — years old. This fine boy has been savagely afflicted with terrible attacks of vomiting and headache, with many other symptoms, local and general, of severe eye-strain. His total compound hyperopic astigmatism when I first saw him was about 6. D. and the vision $\frac{2}{3}$ with each eye. Since then his astigmatism has been constantly increasing, until it is now several times as much as at first. The hyperopia has lessened somewhat in the meantime. At the last mydriatic testing his refractive error was:

R. + Sph. 5.25 + Cyl. 2.50, ax. 90°.
L. + " 5.25 + " 2.75, " 90°.

He has recovered perfect acuteness of vision in both eyes. Correction of his ametropia would give him relief until the increasing astigmatism was too great to bear, and then the piteous and protracted attacks of retching, headache and exhaustion would again appear. Sometimes I have to change his glasses as often as three times within a year. He has now been well and happy since November 1, 1897.

CASE XVI.—M. S. (Case 3,129), aged six, was a very nervous child, with blepharitis, occipital headaches, crying out and constantly kicking about in her sleep. The greatest complaint, however, was of nocturnal enuresis. I put her eyes under atropin for some days, and during these nights the child did not cry or moan in her sleep, did not wet the bed, nor have to get up to urinate. The glasses prescribed at once gave the same result permanently.

CASE XVII.—H. W. (Case 2,225) was a child in very poor health, with alternate convergent strabismus, for which operations had been performed without the application of proper glasses—the ancient horrible blunder. She was a sickly-looking creature, with blunted sensibilities and a stupid mind. Immediately upon the correction of very high hyperopia a change came over her whole being, mental and

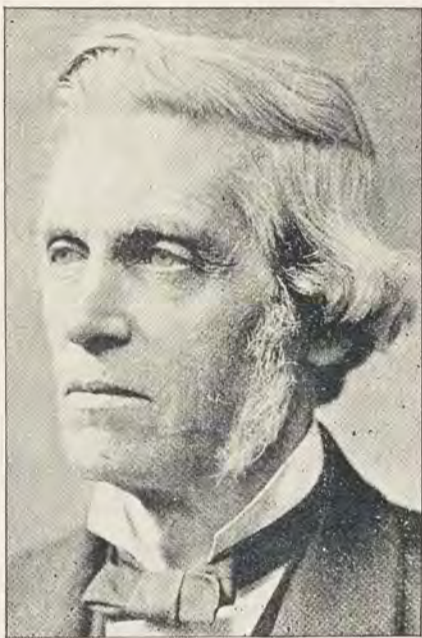
physical. Suffering, strabismus, nervousness and anorexia disappeared as if by magic, and it seemed to me at times as if genuine imbecility had been averted. When she broke her glasses a year later and was without them for a while, the physical and mental morbidness again began appearing.

CASE XVIII.—M. S. (Case 1,847), aged six, was a nervous child, afflicted with headache, breakfast-anorexia (the almost unfailing sign of children's eye-strain), nightmares, somnambulism, etc. For years she had wet the bed every night, and for this the parents had consulted many physicians, and many things had been tried in vain. She had been taken to an oculist, who refused to apply glasses until she were older. Her vision with the best correction was less than $\frac{2}{3}$ with each eye. She had an enormous degree of compound hyperopic astigmatism at unsymmetrical axes. The last time I refracted her the error was:

R. + Cyl. 5.00, ax. 100°.
L. + Sph. 0.50 + Cyl. 5.75, ax. 85°.

The right eye has recovered perfectly normal vision, but the left was so badly injured that so far it has only

From Our Gallery of Optical Celebrities.



SIR WILLIAM PAGET BOWMAN.

This Nestor of ophthalmology in England, was born at Nantwich, England, in 1816. He studied in Leyden, Amsterdam, Bonn, Heidelberg, Munich, Vienna and Berlin; became Demonstrator of Anatomy and Curator of the Anatomical Museum in London, 1838. On account of his brilliant researches, laid down in his "Lectures on the Parts Concerned in the Operations of the Eyes," "Observations on Artificial Pupil," "The Physiological Anatomy and Physiology of Man," etc., he became member of a large number of learned societies in England and various parts of Europe. He was made a baronet in 1884, and died a few years ago.

doubled in visual acuteness. From the day I applied glasses she never has wet the bed once, and soon became "as fat as butter."

CASE XIX.—As an example of the injury that may follow neglect, I wish to cite the case of O. L., aged twelve, when he came to me November 12, 1895. At this time he was wearing R. + Sph. 4.75, L. + Sph. 5.25, with such vision as one-half correction would give, with divergent strabismus of the left eye, complaints of pains in the eyes, frontal and occipital headaches, etc. I took the boy out of school and have retested his refraction several times since. At the last and the most accurate one I found it:

R. + Sph. 9.00 + Cyl. 0.75, ax. 180°.
L. + " 8.50 + " 0.50, " 180°.

When last seen he had $\frac{2}{3}$ in the right, and $\frac{1}{3}$ in the left. I fear the boy is badly maimed and handicapped for life. Normal convergence is still quite difficult and visual acuity will never be perfect. Perfect glasses at three or even five years of age would surely have preserved two functionally normal eyes for him.

In the last conclusion we cannot quite agree with the author, because an eye which has about ten dioptries of hypermetropia shows defective development to a degree which points also to a defective development of the retina with subsequent subnormal vision. We therefore doubt whether in this last case earlier treatment would have increased the visual acuity. Dr. Gould finally

submits the following propositions which deserve careful consideration.

1. Positive squint, easily recognized by any one, needs immediate expert help to prevent fatal and permanent amblyopia.

2. By alternately covering the eyes (the cover-test) the physician may, at a very early date, detect beginning imbalance.

3. By bandaging the good eye, and observing if the child can pick up, handle and touch objects accurately, one may prove whether a suspected amblyopia really exists or not.

4. The earlier in childhood, even during infant-life, that amblyopia, muscle-imbalance, or high-degree ametropia is discovered, the easier the prevention of almost certain and irremediable ocular injury. The child may be too young to wear glasses, and still therapeutic measures may be instituted (temporary mydriasis or blinder for the good eye, for example) that will prevent injury too great for recovery.

5. Glasses, when required, must be ordered much earlier in life than is supposed possible or taught necessary. If I had a child of two years of age needing them I am sure they would be ordered, and just as sure they would be not only tolerated, but welcomed, and most sure they would prevent great ocular, physical and mental injury."

"The Keystone Optical Department during the past year has been worth to me many times the price of subscription."—J. Borst, optician, Carbondale, Pa.

Our Optical Defects as a People.

Dr. Olin F. Harvey, of Wilkesbarre, Pa., who examined more than a thousand men for admission to the army, has embodied his observations in a statement which will interest the country in general and the optical profession in particular. Many of the applicants had to be rejected for defective vision, and as a result of his experience the doctor gives the following among other warnings for the benefit of the rising generation: "Look out for the eyes of the young, and be careful that they are not allowed to overwork or strain them." Opticians would do well to make use of all such official announcements for advertising purposes, as they carry much more weight than the unsupported assertions of the optician, however truthful.

Selective Refractors.

Some time ago a form of eye-glass was suggested which may be without refractive effect for light of some one color, but which as to light of other colors does exercise refraction, so that it becomes possible to more or less completely correct the chromatic aberration of the eye in any given circumstances. The plan proposed was to cement together a positive and a negative lens of nearly equal foci, but of different dispersive properties. One of the objects aimed at was to annul the distinction between "advancing" and "retiring" colors. Thus of red and violet on a plane, the former seems to be nearer to the eye than the latter, because it demands a greater effort of accommodation. But with the aid of the color corrective spectacles, if they are of suitable construction, any such effects are susceptible of being diminished or even reversed.

Massachusetts Opticians and the Title "Dr."

Some two years ago Geo. W. Bradley, a graduate of the Philadelphia College of Optics, located in North Adams, Mass., and opened an office as an eye specialist. He displayed in his office window and at the entrance signs bearing the inscription, "Dr. Geo. W. Bradley, Eye Specialist," and had printed and distributed cards and advertisements with the same words. Mr. Bradley's success aroused the ire of the medical doctors, who instituted suit charging him with the wrongful use of the title "Dr." The case was tried some time ago in the district court in North Adams, and Mr. Bradley was convicted of wrongfully using the title. He therefore carried the case to the Superior Court. Last month the facts were submitted to Judge Gaskell, and the question of law explained by Mr. Bradley's attorney, C. P. Niles, who asked that the questions of law be sent to the Supreme Court, but Judge Gaskell said that was not necessary, as he would sustain the point taken by Mr. Niles on the matter of law and quash the complaint. Under this ruling Mr. Bradley will be entitled to use the title "Dr." again. In making this decision Judge Gaskell recognized the fact that Mr. Bradley did not advertise to treat diseases of any kind, but advertised himself as an eye specialist, or a doctor of refraction, which according to the judge he has a perfect right to do. The case created considerable interest, and the decision in Mr. Bradley's favor was pleasing to the gentleman's friends.

Address all letters to Dr. C. H. Brown, 1824 Diamond Street, Philadelphia, Pa.

The Philadelphia Optical College

A SCHOOL FOR PRACTICAL INSTRUCTION IN OPTICS

INCORPORATED

CHARTERED.



DR. GEO. R. BURDOIN,
Orrville, Ohio.

Has been engaged in the jewelry and optical business since 1870. About fifteen years ago decided to devote more time to the study of Optics, and took a course of study with a Western institution. He continued his studies, and feeling the need for more light sent for our "Key to Success in the Optical Profession." This induced him to matriculate with us in 1897; he proved a brilliant student and graduated with honors that led up to the Doctor of Refraction degree. He is a most skillful and successful optician, and has built up a large trade.

Dr. Burdoin writes, "I am extremely sorry I did not take your Course before. Money matters in small towns are not always easy; yet I am glad I made the investment, as your Course has enabled me to get an understanding of some points that formerly were beyond my comprehension. Your treatment of prisms has made the doubt and uncertainty I had experienced, disappear as dew before the sun.

"Your Diploma is really a work of art, yet I prize it more than a painting by the old Masters; not because it makes one more sheep skin to hang on the wall, but because it is proof of another victory."

CHANGE OF LOCATION.

We have removed to a more central location at

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on the most desirable street and right in the heart of the city.

Our quarters are also more commodious, and we have spared no expense to fit them up handsomely and conveniently for our purpose. We are thus enabled to offer our students more advantages and give them greater satisfaction than ever before.

Open From 9 A. M. to 5 P. M.

The Personal Student and the Correspondence Student both receive the most advanced Instruction of the Individual kind, and they gain a Diploma that confers a Prestige and Standing not otherwise attainable.

Dr. C. H. Brown's Ophthal-Dynameter

To measure the accommodation. Price, \$25.

If this strikes a responsive chord, send five cents for "The Key to Success in the Optical Profession," a Booklet that contains much valuable information.

All letters should be addressed to

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or at the College, **1435 Chestnut St.,**

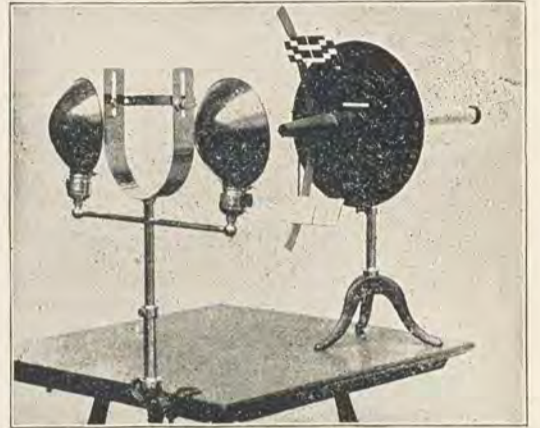
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96 per cent. of all astigmatism is corneal. Why not measure it and be scientific? You want a Javal Ophthalmometer. You want **Satterlee's Model**, as it is the latest improved instrument.

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H. L. HOUGHTON, 373 Washington St., Boston, Mass., General Agent for New England.

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Masonic Temple, Chicago.

"We have submitted samples of your Murine Eye Remedy to a number of our medical men, and they report favorably upon the merits of the preparation, which coincides with the physicians' report mailed to us by yourselves in response to our request.

(Signed)

Yours truly,
The Montreal Optical Co."

MURINE No. 2 DROPS

CURES ALL EYE DISEASES.



IS WHAT YOUR EYES WANT.



Retails 50 cents. Wholesale, \$3.50 per dozen. A valuable adjunct for the optician's use. Send for our circulars and list of Eye Remedies.

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FOR SALE BY LEADING JOBBERS

The Optician's Manual.

A Hand-Book of Spectacle Adjusting for the Use of Jewelers and Opticians.

The first ten chapters of "The Optician's Manual," as published in THE KEYSTONE from May, 1890, to November, 1896, in the order mentioned hereunder, have been republished in book form with additional matter, illustrations and colored plates. A copy of the book will be sent, prepaid, from this office on receipt of \$2.00.

- CHAPTER I.—INTRODUCTORY REMARKS.
- CHAPTER II.—THE EYE ANATOMICALLY.
- CHAPTER III.—THE EYE OPTICALLY; OR, THE PHYSIOLOGY OF VISION.
- CHAPTER IV.—OPTICS.
- CHAPTER V.—LENSES.
- CHAPTER VI.—NUMBERING OF LENSES.
- CHAPTER VII.—THE USE AND VALUE OF GLASSES.
- CHAPTER VIII.—OUTFIT REQUIRED.
- CHAPTER IX.—METHOD OF EXAMINATION.
- CHAPTER X.—PRESBYOPIA.
- CHAPTER XI.—HYPERMETROPIA.

CHAPTER XII. (Continued.)

MYOPIA.

Not only the abstraction from fresh air and exercise, but the very conditions under which the eyes are used, are detrimental to the general health. The book is brought nearer the eye, the head is bent upon the chest or over the table, till the shoulders become curved and the chest contracted, and normal respiration is interfered with.

Such a child can not see clearly the features of his companions, his parents or his teachers, nor catch the ever-varying expression of the eye, or the subtle changes in the muscles of the face, by which an idea is emphasized or a principle enforced. His sense of the beautiful in nature is hampered and curtailed. Earth, sea and sky make up for him a world different from that of his companions, and it is no wonder that his views of men and things are different also.

He judges of men and their intentions rather by the sound of the voice than the expression of the face, and is apt for that reason to be suspicious of strangers. In unfamiliar neighborhoods and with insufficient light, he is timid and cautious. With all this studiousness and devotion to books, the statement is made that near-sighted people as a whole, are not any more intellectual than those who have normal eyes, because studiousness and intellectuality are not always convertible terms, as most people think they are.

Of course these remarks do not apply to those cases of myopia which have been corrected at the commencement of school life with the proper concave lenses, but to those other cases of the defect which exist among young and growing children and which, being neglected, gradually become worse as adult age is reached.

ORIGIN OF THE TERM MYOPIA.

In hypermetropia, as was demonstrated in the last chapter, the patient is able, by the use of the accommodation, to overcome the defect and maintain clear vision. But in myopia on the contrary the exercise of the accommodation would only make the eye more near-sighted; nor does the eye possess any other power of its own to correct this error of refraction, except that such a patient falls into the habit of half-closing the lids, or nipping them together. In this way the more circumferential rays are cut off and the central rays only are allowed to enter the eye, the lids thus forming a stenopaic apparatus to the improvement of the clearness of the image formed on the retina. This gives rise to the word myopia, which is derived from two Greek words, meaning to "contract or close the eye."

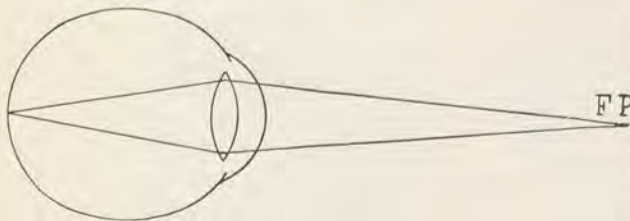


Diagram of a Myopic Eye, showing that the divergent rays which proceed from F. P. (the far point) are exactly focussed upon the retina.

HOW DIVERGENT RAYS ARE FOCUSED IN MYOPIA.

When parallel rays pass through a convex lens, they are brought to a focus at a certain point

on the other side of the lens, which is known as the principal focus of the lens. If divergent rays are made to pass through the same lens, the focus would be farther away; while in the case of convergent rays the focus would be nearer than the principal focus.

The statement has been made in this chapter that in myopia the rays meet in front of the retina, but it should be remembered that this refers only to parallel rays, or to convergent rays which focus still farther in front. The focus of divergent rays is farther back than parallel, thus approaching the retina, and if of the proper degree of divergence will meet on this membrane.

Now in nature there are no convergent rays of light; such rays exist only when made so artificially. Hence we are interested at the present time only in parallel and divergent rays, the two forms in which we find light to exist, the former proceeding from distant objects and meeting in front of the retina of the myopic eye; the latter issuing from objects near at hand and focusing on the retina as shown by the diagram.

There is in front of the myopic eye a certain space within which vision is clear and beyond which it becomes indistinct, the dividing line of which is marked by the far point, which varies with the degree of defect. The higher the grade of myopia the closer the far point, the lower the degree the more distant the far point. It follows from this that if any object can be brought close enough to be within the far point of any myopic eye, it will be clearly seen. While if it is moved farther away so as to get beyond the far point, the rays begin to lose their divergence and focus in front of the retina and vision is no longer distinct. Thus it is seen that the myope is shut up in a little world of his own, the limits of which are determined by the distance of the far point.

In the correction of myopia, the concave lens that is prescribed causes the rays that pass through it to enter the eye divergently, thus throwing the focus back upon the retina, and restoring distant vision to normal clearness.

PREVALENCE OF MYOPIA AND ITS COMPARATIVE FREQUENCY IN DIFFERENT CLASSES OF SOCIETY.

Myopia is more common in the cities, and in those nations and among those classes of people, whose advanced civilization, and whose occupations require extended use of the eyes for close objects. It is not equally prevalent in all civilized countries, nor in all parts of the same country.

It is much less frequently found among persons brought up in the rural districts, or among those who devote themselves to occupations requiring but little use of sharp vision for small objects. On the contrary it is among this class that hypermetropia prevails to a much greater extent.

VISION OF MYOPES.

It is not unusual to find in the slighter degrees of myopia, where the error of refraction is less than 2. D., that the patient himself is not conscious of its existence, until perhaps it is accidentally discovered when comparing distant vision with some emmetropic friend; or by trying on the concave glasses of some myopic friend, when it is found that everything is more clearly seen and objects are visible at greater distances.

With such a myopia the patient will be able to read fine print without convex glasses until he is probably fifty or fifty-five years of age. Thus the late appearance of presbyopia will tend to compensate for the diminished range of vision for distant objects. It is for these reasons that Donders gives his preference to the slightly myopic eye, because he argued that the slight indistinctness with which distant objects are seen in early life, is more than counterbalanced by the ability to read and write at a later period of life without the use of convex glasses.

In higher degrees of myopia if there is a fair amplitude of accommodation present, the patient naturally falls into the habit of bringing small objects close to the eyes, oftentimes much nearer than there is any necessity for, and as it is inconvenient to bring his book or work close to his eyes, he bends the body so as to assume a

stooping position, the more so the higher the degree of defect.

The half-closed lids and the wrinkling of the skin of the forehead, gives the features a peculiar expression, by which the myope can often be recognized; and this habit, like many others when once formed, is hard to abandon and is often kept up even after the myopia has been entirely corrected by concave glasses, and the necessity for using the lids as a stenopaic apparatus no longer exists.

As has already been stated, objects situated beyond the far point are seen in diffusion circles; while within this point vision is just as good as in an emmetropic eye, or perhaps even a little better. Inasmuch as small objects in order to be sharply defined, must necessarily be held much closer in this defect than normal, the visual angle under which they are seen is proportionally larger; consequently the image formed on the retina is of greater size, thus impressing more of the percipient elements of the layer of rods and cones.

In addition to this the pupil is more dilated in myopia, thus allowing additional light to enter the eye and enabling the patient to see with less illumination. But while near vision is possible with a feeble light, distant vision on the contrary is improved by a brilliant illumination, because the strong light contracts the pupil and thus diminishes the size of the diffusion circles. For this reason the myope can see very much better by looking through the pin-hole disc from the trial case.

When the degree of myopia is greater than 6. D., there is generally more or less disturbance of near vision in addition to the impairment of distant vision, and this is not to be wondered at when the morbid changes that have taken place at the fundus of the eye are considered. Excessive use of the eyes in near vision produces a feeling of strain and they become painful: following which there appears redness of the conjunctiva and an increased flow of tears.

MUSCÆ VOLITANTES.

In all forms of ametropia, but especially in myopia, complaints are often made of dark spots or floating bodies, which make their appearance in the field of vision and dance before the eyes, and which have received the name of *muscæ volitantes*. The constant appearance of these floating specks is a source of considerable annoyance and alarm to myopes, not only from the way in which they engage the attention, but also from the fears which they excite.

They are variously described by different persons, and are most noticeable when the eyes are turned towards a white surface, such as a white-washed wall or ceiling, or a white cloud. They follow the movements of the eye, and are especially annoying during the act of reading as they float across the page. They do not, however, interfere with vision, as it is characteristic of them that they never cross the axis of vision, nor obscure or conceal the object looked at, but rather move about the lateral portions of the field.

There is no real opacity of the vitreous humor, and an examination by the ophthalmoscope fails to detect in these cases any floating opaque particles. They are caused by shadows thrown upon the retina by very minute particles in the vitreous body, perhaps the remains of embryonic tissues. They are more visible to myopic persons than to others, because of the greater length of the eye-ball, thus allowing a shadow of larger size to be cast upon the retina. The number of these spots may be increased by any condition which disturbs the balance of the circulation and thus alters the density of the fluids within the eye.

If not excessive in size or number, these spots may be regarded as more or less physiological and the effort must be made by the individual to ignore them. Patients often complain of the exaggerated and fantastic shapes they assume, ascribing them to disorders of digestion and torpidity of the liver. But when they are abundant and increasing, they may indicate serious structural change, and should lead to a careful examination by a competent oculist.

Donders says: "I have seen instances in which anxiety about *muscæ volitantes* amounted to true monomania, against which all reasoning and the most direct demonstrations were in vain."

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The annoyance avoided by having your stock distributed in our
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**EVERYTHING OPTICAL
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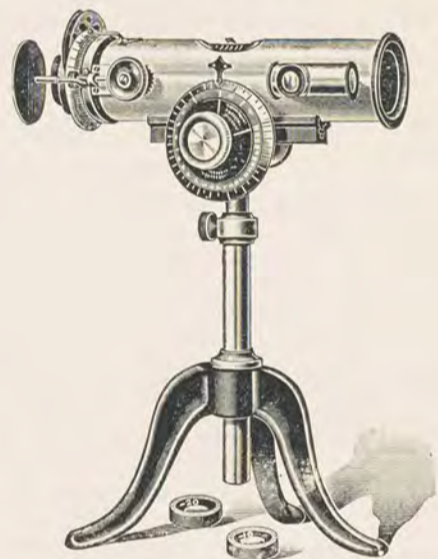
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Entire Manufacturer's Output Purchased.



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GLOBE OPTICAL CO., Boston, Exclusive New England Agents.



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ALL OUR GOLD FILLED
GOODS ARE STAMPED WITH
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Our business is done exclusively through the Jobbers, but we want the retail trade, who are the distributors of Spectacles and Eye-Glasses, to know that we make one of the best lines on the market, and in order to convince them of the fact, and that they may become familiar with our make, we will send to any retail dealer a line of our Gold Filled Spectacles and Eye-Glasses, postage prepaid, on memorandum, for their inspection.

We Guarantee all Gold Filled Spectacles and E. G. of our make bearing our Trade Mark, and will replace with new goods at any time should gold wear through.

National Optical Co., Inc.,

Eleventh and Mifflin Streets, PHILADELPHIA, PA.

L. Manasse Company, Manufacturing Opticians and Importers, 88 Madison Street, CHICAGO, ILL., U. S. A.

Paris Office, 24 & 26 Rue des Petits Hotels. London Office, 40 Hatton Garden. German Office, Furth, Bavaria.



Gold, Gold Filled, Alumnico and German Silver
Riding Frames, without Lenses.

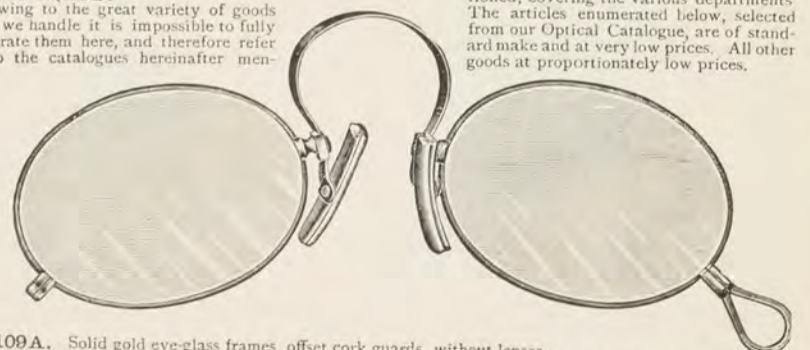
- No. 1. Light weight frame, broad saddle bridge, 1 eye, per doz., 8 K., \$18.00 10 K., \$21.00 14 K., \$28.50
- No. 3. Medium weight frame, with heavy saddle bridge, 1 and 0 eye, per doz., " 23.00 " 33.00
- No. 34. 10 K. gold filled frame, saddle bridge, 1 and 0 eye, per dozen 5.50
- No. 34A. Same as No. 34, but with cable temple, 1 and 0 eye, per dozen 8.00
- No. 34B. Extra quality gold filled frame, saddle bridge, 10 K. seamless wire, 1 eye, per dozen 7.50
- No. 23. German silver frames, saddle bridge, 1 and 0 eye, per dozen 1.80
- No. 27. Alumnico frames, saddle bridge, 1 and 0 eye, per dozen 2.40

- Gold, Gold Filled, Alumnico and German Silver Frames, Straight Temples, without Lenses.**
- No. 15. Medium weight frame, flat eye wire and temples, 1 and 0 eye, per dozen, 8 K., \$25.20 10 K., \$30.00 14 K., \$42.50
 - No. 32. 10 K. gold filled frame, 1 and 0 eye, per dozen 5.50
 - No. 32A. Extra quality gold filled frame, 10 K. seamless wire, 1 eye, per dozen 7.50
 - No. 21A. German silver frames, 1 and 0 eye, per dozen 1.80
 - No. 25. Alumnico frames, 1 and 0 eye, per dozen 2.40

We issue the following Catalogues: Catalogue No. 5, Opticians' and Jewelers' Trade List.
Catalogue No. 3, Meteorological Instruments, with wholesale price-list
Prescriptions Filled without delay. Catalogue No. 2, Mathematical Instruments, " " "
Catalogue No. 4, Magic Lanterns, " " "

TO THE TRADE:
Owing to the great variety of goods which we handle it is impossible to fully enumerate them here, and therefore refer you to the catalogues hereinafter men-

tioned, covering the various departments. The articles enumerated below, selected from our Optical Catalogue, are of standard make and at very low prices. All other goods at proportionately low prices.



- No. 109A. Solid gold eye-glass frames, offset cork guards, without lenses, 1 and 0 eye, per dozen 8 K., \$19.50 10 K., \$24.00
- No. 119. Rimless eye-glasses, 10 K. mtgs., offset cork guards, No. H or C pcc. or pcc. lenses, per doz. 16.00
- No. 120. Rimless eye-glasses, 10 K. mtgs., offset cork guards, with ring for cord, pcc. or pcc. lenses, per dozen 20.00
- No. 129. 10 K. gold filled frame, offset cork guards, like cut, without lenses, per dozen 4.50

INTERCHANGEABLE LENSES.

- First quality pcc. or pcc. lenses, 1 and 0 eye, polished edges Per doz. pairs. \$1.00
- First quality cement bifocal convex lenses, 1 and 0 eye 3.75
- First quality perfection bifocal convex lenses, 1 and 0 eye 4.50

Among the Opticians.

- W. D. Harris will begin business as an optician in South Hadley, Mass.
- H. E. Murdock, optician, Portland, Me., is now located in better quarters.
- William N. Walsh has begun business as an optician in Medway, Mass.
- Walter D. Robbins has begun business as an optician in Rochester, N. H.
- Mr. Blakley, of Minto, N. D., recently completed a course of optical instruction.
- Charles W. Card, a druggist, of Kingston, N. Y., has added optical goods to his line.
- J. A. Caonette, optician, has taken half the store of L. Kirsch, of Manchester, N. H.
- J. B. Sanderson, optician, at Manchester, N. H., has recovered from his recent illness.
- John N. McWalters, optician, at Haverhill, Mass., spent his vacation at Boothbay, Me.
- F. C. Mayworm, Hancock, Mich., has had an optical apartment fitted up in his store.
- U. K. Kleiser, of Grand Junction, Ia., has taken a course of optical instruction in Chicago.
- L. M. Barnes, North Adams, Mass., has added a De Zeng refractometer to his optical outfit.
- J. Pickard has opened an optical office with Harry Havener, jeweler, Haverhill, Mass.
- Edwin H. Etz, optician, Washington, D. C., has opened a store at 1105 G Street Northwest.
- John J. Egan, optician, Waltham, Mass., spent a portion of last month vacationizing in Maine.
- M. D. Caruss has withdrawn from the firm of Caruss & Campbell, opticians, of Stamford, Conn.
- Charles E. Monroe, optician, at Southbridge, Mass., has opened a branch office at Webster, Mass.
- Olav Moe, Cedar Falls, Iowa, recently took a post-graduate course in Chicago Ophthalmic College.
- Howard Wilcox, Catskill, N. Y., has fitted up an optical room in connection with his jewelry business.
- Bernard F. Barston, formerly of Needham, Mass., will engage in business as an optician in Kansas City, Mo.
- Albert Johnson, manager of the Cardon Jewelry Co., at Logan, Utah, is in New York, taking a course in optics.
- Max Simon, optician, Louisville, Ky., was painfully injured last month by the accidental discharge of a revolver.
- Miss Franklin Kidder, optician, of San Francisco, Cal., has arranged to visit various cities of the State at intervals.
- Frank M. Silva, optician, has opened an office business in Room 5, at 207 Westminster Street, Providence, R. I.
- B. Wolinski, optician, of Sydney, Australia, arrived in New York recently, and will engage in business in this country.
- O. F. Parks, optician, of 120 Tremont Street, Boston, recently received a diploma from the medical department of Tufts College.
- Paul Roessler, optician, of New Haven, Conn., returned recently from a visit of nearly two years to his former home in Europe.
- George Ducommon, Tulare, Cal., has taken a course of instructions in optics with the California Optical Co., San Francisco, Cal.
- Leopold Lewis, optician, New York City, has moved from 912 Eighth Avenue to 915 Eighth Avenue, near Fifty fourth Street.
- Moses Weil, the optician, Wilmington, Del., was one of the building committee of the first Jewish Synagogue in Delaware, which was dedicated last month.
- Lord Bros., Tilton, N. H., have recently taken the agency for Clark's Binocular Optometer. This instrument is intended for testing for all errors of refraction. The manufacturers have recently published a pamphlet describing it, which can be had on application to Lord Bros.
- John Pfaff, for many years employed by Queen & Co., of Philadelphia, Pa., is now with the Rodney Pierce Optical Co., Pittsburg, Pa.
- James E. Spencer, president of the Spencer Optical Manufacturing Co., New York, has been spending a four weeks' vacation at Poland Spring, Me.
- W. G. Roden, of the East End, Pittsburg, Pa., recently finished a course of optical instruction with the Rodney Pierce Optical Co., of that city.
- Edwin W. Wells, president of the Globe Optical Co., spent the last two weeks of August at Cottage City, Mass. He was accompanied by his family.
- W. D. Fennimore, vice-president of the California Optical Co., San Francisco, Cal., spent two weeks' vacation with his wife and family at Lake Tahoe, Cal.
- George H. Johnston, of the Johnston Optical Co., Detroit, Mich., spent a few weeks last month with his family on Gross Isle, where he owns a cottage.
- E. H. Hobbs, Selma, Ala., has now a complete optical department, having recently equipped his establishment with the latest appliances for optical practice.
- J. B. Williamson, of Camden, Me., has sold his jewelry business to Aubrey C. Coose, formerly his watchmaker, and will devote himself exclusively to his optical business.
- I. Black & Co., Detroit, Mich., have made many alterations and improvements. The factory is now located on the upper floor, and facilities generally have been increased.
- The California Optical Co., San Francisco, has the general Pacific coast agency for the Hardy ophthalmometer and anatomical eye-glass guards, also for the belt eye protectors.
- Bausch & Lomb Optical Co., Rochester, N. Y., have issued a handsomely compiled and illustrated pocket catalogue descriptive of the Bausch & Lomb Zeiss stereo field glasses.
- J. S. Connelly and R. D. Crawford have engaged in business under the name Bellamy Optical Co., at Titusville, Pa. They will manufacture patented glasses for bicycle riders.
- Martin Walsch, an employee of the American Optical Co., Southbridge, Mass., who enlisted in the army about two months ago, died last month in a hospital in Charleston, S. C.
- Albert J. Willis, optician at Reid & Hughes', Lawrence, Mass., has returned from a three weeks' vacation. The optical department was refitted and greatly improved in his absence.
- Spain is said to have more blind men than any other State in Western Europe. The proportion is given as 148 to every 100,000 inhabitants, while in France, Germany and England it is 84, 85 and 88, respectively.
- During a recent very severe wind storm one of the large plate glass windows of the Columbian Optical Co., 7 East Eleventh Street, Kansas City, Mo., was broken, but very little damage was done to the contents of the window.
- Eugene E. Gauss, with E. J. Crawford, of Manton, Mich., took a special course in optics with L. Black & Co., Detroit, Mich. Mr. Gauss will open up a first-class optical department in connection with the jewelry department of Mr. Crawford.
- C. A. Wilkinson, of C. A. Wilkinson & Co., manufacturers of filled optical goods, Providence, R. I., recently returned from a tour to the optical trade from Omaha east. He reports very good business, and the outlook excellent for the fall trade.
- The Spencer Optical Manufacturing Co., New York, has again secured the services as traveling salesman of A. Marshuetz, who is well known to the trade and very popular. He will travel in his old territory, whither he has gone with a tempting new line of samples.
- "We note business is picking up," writes Geo. W. Wells, President of the American Optical Co., Boston, Mass., "and there is every indication for a prosperous business the balance of the year. I also believe the closing up of the war and the confidence and assurance of a settlement of these perplexing questions will result in a number of years of prosperity for this country, such as we have not seen for many years past."
- J. C. Clark, Sioux City, Iowa, secretary of the Iowa Optical Society, accompanied by his wife, has gone to visit the Exposition at Omaha, Neb. He will also attend the convention of the Grand Lodge, Knights of Pythias, at Council Bluff, as the grand representative from Sioux City.
- S. G. Marshutz, of the Pacific Optical Co., Los Angeles, Cal., has returned home after a four months' trip to the Eastern cities and Europe. While on his trip he made arrangements with the leading jobbers for the sale of his patent "Aurocone" spectacles. He also made extensive purchases of goods in the various markets visited.
- Wm. H. Spangler, Pittsburg, Pa., has added to his old quarters the adjoining establishment of J. B. Carson, and now has a floor space extending from 204 to 212 Sixth Street. This space has been remodeled and painted inside and out, and the firm's facilities for filling oculists' prescriptions, testing of eyes, and making spectacles and eye-glasses have been increased and perfected.
- H. L. De Zeng, Jr., the inventor of the De Zeng refractometer, will spend the week beginning September 5th with the Globe Optical Co., Boston, Mass., for the purpose of demonstrating the refractometer to the New England oculists and opticians. He will make one or two addresses on "Refraction Done With or Without Mydriatics."
- At a recent session of the Ontario, Can., Pharmacy Council, Dr. Bowett, of Woodstock, was introduced and read a very instructive paper on the value of the study of optics to the pharmacists. He suggested the advisability of the Council adding this branch to their college course. A long discussion on the subject followed and it was finally moved, seconded and unanimously carried that the committee on education be asked to formulate a plan whereby the study could be added to the curriculum.
- The Philadelphia Optical College, Philadelphia, Pa., has secured new quarters at 1435 Chestnut Street. The new location is right in the heart of the city on the principal street, a location much more desirable than Diamond Street. The Chestnut Street apartments have been handsomely fitted out, and offer many conveniences not available in the old quarters. This college, the pioneer of the correspondence course, is now better fitted up than ever, especially for attending students.
- W. H. Blacar, Bangor, Me., writes: "Your answer to 'Photographer,' in August number of THE KEYSTONE is scientifically correct, but practically he will find that if he wishes to photograph objects at a short distance that the addition of a plus lens will accomplish his purpose and he will find the prints so near like ones taken with a single lens that I don't think he can find the difference. Also, if he wishes to take objects at a long distance, he can get them larger on his plate by the addition of minus lens."
- After a number of months' work, the Stevens Optical Co., of Providence, have just gotten their new line on the market. Those who have examined their new samples are very favorably impressed, especially with the stiffness of the goods, in which respect they are said to excel any filled goods that have ever been shown. This question of rigidity and stiffness is something that all the manufacturers of filled goods have aimed at, but it is very difficult to obtain. Most of the objections that have been urged against filled goods is that they were too soft and would not stand up, but the Stevens Co. seem to have overcome this objection.

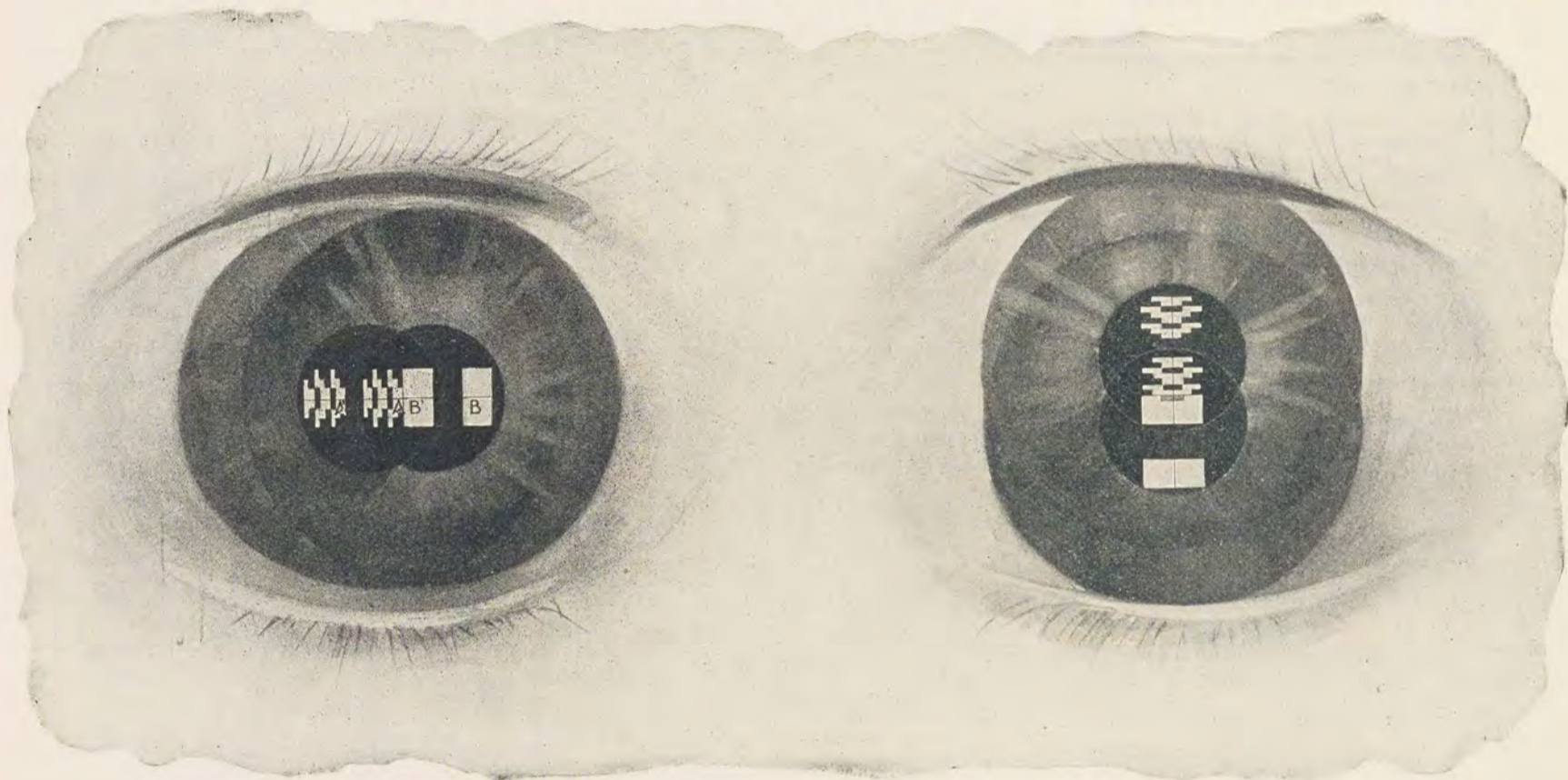
Beware of This Trick.

A prominent optical manufacturing concern writes us as follows: "We think it would be well for you to know how some people are doing business. We received a check on the Nazareth National Bank, of Nazareth, Pa., for the sum of \$7.50, drawn by R. Johnson, and payable to the order of H. Wolf. H. Wolf indorsed this check and sent it on to us, with an order for \$7.50 worth of goods. The check being a small amount, we filled the order, although we do not know either of these parties. The check was returned protested, and the cashier of the bank on which it was drawn says he does not know either of the above-mentioned parties, and, therefore, believes, after making inquiry, that it is the work of a rascal trying to defraud. He may be trying this same game on others in the trade, consequently, we think it would be the proper thing to publish."

ONE DIOPTER OF ASTIGMATISM

AS DETECTED BY

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Horizontal Meridian.
Normal.

Vertical Meridian.
1. D. Astigmatism,
requiring + Cylinder.

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It shows the corneal astigmatism positively.
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It is a great time-saver, and insures accuracy in the great majority of the cases.
Our pamphlet gives full explanations and directions for its use.

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It pays for itself in a few months. No Optician can afford to be without it.

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Optical Questions and Answers.

Subscribers wishing inquiries answered in this department must send name and address—not for publication, but as an evidence of good faith. Questions will be answered in the order in which they are received. No attention will be paid to anonymous communications.

To enable us to answer questions satisfactorily and give proper advice in the management of cases submitted to us, it is essential that we be furnished with a complete history of each case and accurate information on the following points:

1. Age. (If not possible to give exact age, always approximate.)
2. Have glasses been previously worn? How long and what number?
3. Visual acuteness of each eye, and what improvement glasses afford.
4. Range of accommodation (without glasses and with them).
5. Evidence of astigmatism (as shown by radiating lines).
6. Test for muscular insufficiency.

"C. P. S."—*In fitting cylinders to hyperopic or presbyopic eyes (or myopic) what allowance do I have to make for cylinder? For instance, a + Cyl. added to my prescription of + Sph., don't I have to lessen the + according to + Cyl. I place on top of the bi-convex lens?*

In the correction of compound hypermetropic astigmatism, the usual rule is to use sphericals first and determine the degree of hypermetropia. Then a convex lens .50 D. weaker than is indicated, is placed in the trial frame and the convex cylinders placed over it. This is not a fixed rule, but it is a safe one to follow. After all, every case must be managed on its own merits. An older person, or one who has been accustomed to wear glasses, will bear a stronger convex lens than one who is just commencing to make use of these aids to vision. Sometimes it is a good plan to increase first the spherical then the cylinder alternately, adapting one to the other until best vision is attained.

"J. B. & Son."—*Lady, aged thirty-four years, was fitted for right and left eye three years ago, + 1.25 Sph., and wore them satisfactorily until she had measles. After that, vision was so blurred that she came to us for examination. We found vision, R. E. $\frac{3}{8}$ + .50 Cyl. ax. $30^\circ = \frac{3}{8}$; L. E. $\frac{3}{8}$ + 1.00 Cyl. ax. $150^\circ = 1.25$ Cyl. ax. $60^\circ = \frac{3}{8}$. We prescribed the glasses mentioned, but fear there is ciliary contraction. Can either correction do harm? Left eye causes things to look "too short." Is it safe to persist in wearing? The oculist who made first fitting said he could not do much for the left eye.*

In measles the eyes are always more or less affected. Some cases but slightly, while in others the disease seems to expend its violence upon these organs; and as a result, after recovery, the condition of the refraction is changed. While we can not say positively there is no contraction of the ciliary muscle, yet it is very unlikely at this age. Before glasses are prescribed, the examination should be repeated several times, so as to verify results; but if this convex cylinder raised the vision of right eye from $\frac{3}{8}$ to $\frac{3}{8}$, it is fair to presume this is the proper lens to order. Inasmuch as the left eye has always been deficient, its full correction may not be well borne. The rule is to take care of the good eye first, and give only an approximate correction to the other.

"M. B."—*Man, aged thirty-seven years. Has worn wrong glasses for four or five years. Can read No. 70 type, without glasses, but letters tremble; both eyes seem nearly alike. With glasses of + 1. Cyl. each eye can read No. 50 type. This seems the best to read with, as the letters do not tremble so much; but there seems to be a very high degree of astigmatism without glasses. Can see the ball in ax. of 180° quite plain; the two side balls are very dim, and top ball ax. 90° ; can see no strips at all, and with the above glasses very little better. But increase Cyl. to about + 2.25 or + 2.50 in same ax. and it brings balls nearer alike (but spoils the letters; they tremble and blur so he can't read them), and still the top ball is more dim than the rest. Increase the Cyl. more than this and the bottom ball begins to grow dim. Accommodation without glasses, near point six inches, far point twelve inches. As I could not find any glasses that were satisfactory, can't state what accommodation is with glasses. Patient never had any sickness that I can learn which would affect eyes, but says he knows he has been this way since a small boy of twelve years or so. He says other opticians have found the same fault as I have. Muscles apparently good. With pin-hole disk can read only No. 50, as with glasses, but balls are clearer and more uniform. Tell me why, by adding Cyl. to correct astigmatism, it blurs letters, and what kind of lenses would you prescribe? The case seems contrary to the rule of optics.*

If the patient has had defective vision since boyhood which has never been corrected, there will be difficulty at this age in persuading the eyes to become accustomed to glasses; and if he has worn improper glasses for four or five years, the case is still further complicated. The history of the case would indicate that a portion of the defective sight is beyond the reach of optical assistance; just what the trouble is can be determined only by a careful ophthalmoscopic examination.

In prescribing glasses our advice would be to select those (either plane cylinders or spherocylinders, as indicated) that will afford the best vision and make the letters clearest on the test card hanging twenty feet away, and to repeat the examination several times before making the selection.

"W. E. T."—*Lady, aged twenty-two. Appears myopic when reading with or without glasses. Visual acuteness, R. E. $\frac{3}{8}$, L. E. $\frac{3}{8}$; with O. U. + 7. $\frac{3}{8}$. Reads with O. U. + 7. best at nine inches. Nearest, six inches; farthest, twelve inches. O. U. + 7. seems to be best I can do for both far and near. Has pain in eye-balls, with headache quite often. Find no sign of astigmatism or muscular insufficiency.*

This seems to be a case of high hypermetropia. We have, on these pages on different occasions, called attention to the danger of mistaking hypermetropia for myopia, on account of the similarity of the symptoms. In both cases the acuteness of vision is impaired, and the patient holds his book close to his eyes, and the inexperienced optician may be led into prescribing concave glasses; this, however, is a most inexcusable error, and may cause great injury to the eyes.

The acceptance of + 7. D. lenses in this case stamps it as one of high hypermetropia, and these glasses should be ordered at once and for constant wear. It is probable that the visual acuteness will improve, the range of accommodation be increased, and the pain in eye-balls and headache be relieved.

"J. E. T."—*Lady, aged sixty-three years. Says she has been wearing glasses that did not suit her, although I did not see them. Oculist examined her eyes last year and told her they were in bad condition. Vision, either eye, without glasses $\frac{3}{8}$; with + 4. V. = $\frac{3}{8}$ and greater part of $\frac{3}{8}$ (both eyes the same). But now comes to me the puzzling part. Without glasses she can read newspaper print at eight inches, though it seems to strain her eyes and tax and tire them if she reads a few minutes. Having proceeded this far with the examination, I naturally thought her trouble was what some people commonly call second sight (swelling of crystalline lens from age or disease), and that a Con. Sph. would put the reading point off where it should be, and all would be satisfactory for the time being. But no Con. Sphericals would do any good. And the + 4. D. Sph. seemed satisfactory for reading. Could read fine print with them best at fourteen inches. Range of accommodation, twelve to sixteen inches with them.*

This case seems to run in lines contrary to the general rule, and is therefore a puzzling one to the refractionist. Her ability to read without glasses must be due to a spasmodic effort of accommodation unusual at this age, and which can be maintained only for a few minutes. The acceptance of the + 4. D. lenses at twenty feet would exclude the ordinary second sight, in which condition concave lenses improve the vision, but only for distance. For reading, such a person can get along usually without glasses, or if any are necessary, they are to be found among the weak convexes. In this case the proper thing to do would be to order for distance the glasses that afford the best vision at twenty feet, for which, perhaps, glasses weaker than 4. D. will answer, and then to add to them just sufficient to allow satisfactory reading at the usual distance.

"Sunshine, Ariz."—*I have a couple of cases on which I would like your advice. 1st. Girl, aged twelve, first came to me in April, 1897, complaining of headache and inability to study easily. V. O. D. $\frac{3}{8}$ — O. S. $\frac{3}{8}$ O. U., with + .50 Cyl. ax. $90^\circ = \frac{3}{8}$, and reads finest line four to nineteen inches, but I find three degrees exophoria. This I did not correct, as I wanted to see what effect the Cyls. would have on it. She said was getting along nicely, until a few weeks ago (about a year after fitting) she came in and said she was having some headache. I measured refraction again and found the correction of year ago all right, but I also found the same amount of exophoria, three degrees. I have been giving exercising prisms for this for six weeks, but get no benefit to amount to anything. Would you put a $1\frac{1}{2}^\circ$ prism with each of the Cyls. for constant use?*

2d. Young lady, aged twenty-eight, stenographer. Headache after work. Has worn glasses some, but not much, as she said didn't do any good. I don't know what they were, fitted by a traveling fellow. O. U. V. is $\frac{3}{8}$; O. D. V. is $\frac{3}{8}$; O. S. is $\frac{3}{8}$; O. U. + 1.00 Cyl. axis per V. is $\frac{3}{8}$. I can't understand why same lens brings up either eye to normal or better when there is so much difference on distance at first, unless it is that the ciliary in right eye has given up the struggle and gone on a strike; but I tested several times, always with the same results. I can't get the right eye quite as good as left, but nearly so. This patient also has some exophoria, four degrees, with plus Cyls. on, and I am puzzled, after my experience with No. 1, whether to give prisms at first or wait a trial with the Cyls. first. What has been your experience in such cases? My way of doing has been, in exophoria, to always give the Sph. or Cyl. correction a trial first; but I am not so certain about the exophoria. Also please give me your idea as to reason vision was so low in O. D. and same lens brings it up. I have my ideas on these questions, but want yours too, to either brace my own up or else knock them out.

This is a country of almost constant sunshine. What would be your idea of prescribing glasses for constant use with a slight (No. 1) blue tint?

This patient is a type of a class of cases that is frequently met with, and it has been very properly managed. We would answer, "yes," as to the prismatic combination

with the cylinders for constant wear, but would suggest the prisms should not be over 1° .

2. Our correspondent's method of treating these cases meets with our approval, viz., to get all the benefit possible out of sphericals and cylinders before resorting to prisms. Or, in other words, to correct the refractive errors first, and then if relief is not obtained, to give attention to any existing muscular insufficiencies. If the refractive error is the same in both eyes, the difference in the visual acuteness must be due to an unequal use of the accommodation.

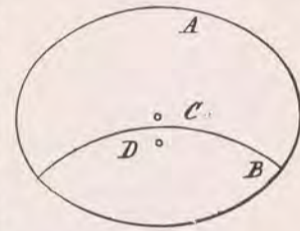
An optician should be slow about ordering dark glasses for constant wear, and we think it allowable only in cases where there is some irritation or inflammation of the eyes, or where there is unusual or prolonged exposure to excessive sunlight, and then we would suggest a light smoke.

"Enclosed please find one dollar in payment for The Keystone for another year. Sorry am a little late in forwarding, but never entertained the idea of giving The Keystone the go by; could not afford to do so; the harder the times, the more time I have to grasp the knowledge contained on all its pages."—S. W. Stevens, jeweler and optician, Syracuse, Nebraska.

Bifocal Spectacles.

A correspondent writes:

I read with much interest your review, in June number of THE KEYSTONE, on "Why Bifocal Spectacles are Sometimes Uncomfortable." In the quotation you make from Dr. Bennett I find this language: "We must insist that our opticians make the segment with the optic and geometric centers coincident." I fail to understand just what is meant by the expression "geometric center." I make a diagram to assist in the effort to arrive at a correct conclusion. A and B being parts of one lens, B a segment only of the ellipsoid, is not C the geometric center? If so, then have we not a palpable violation of one of the first laws of optics? An optical center outside the periphery of the segment gives us a sphero prism. Could such be easy to the eye unless muscular insufficiency indicated it? My first patient demanding bifocal spectacles complained that they did not suit the eyes. I tested a second time, and verified my first work, and placed another order. The result was the same. I then, upon closer examination of the lenses, found the center of the segment coincident with the center of the hypermetropic correction, and wrote the mechanical optician complaining, who replied that such was the custom of opticians to thus grind the segment. I placed a third order embodying the same dioptric numbers, and enclosed a diagram requiring the optical center of the segment located at D. These gave entire satisfaction. Since that time I specify "lower segment centered," and have had no complaint. I notice that all bifocal lenses "in stock," have a common center for both at C. My limited experience by no means justifies it, but requires an independent center for each. Am I right or wrong? If wrong, why?



Our correspondent is correct. The lower segment requires an independent center, both geometrically and optically. This is what Dr. Bennett means when he says: "We must insist that our opticians make the segment with the optic and geometric centers coincident." Now it is evident that each part of the bifocal lens, the lower as well as the upper, has its own geometrical center. By geometrical center is meant that point of the lens which lies opposite the center of the pupil for each respective act of vision. For distant vision, the pupils being higher, the geometrical center of a well-adjusted bifocal lens ought to be at C, or slightly higher than the center of the large ellipse A, while for near vision, the pupils being lower, the geometric center ought to be at the middle of, or a little higher than the middle of the lower segment B, that is, a little lower than D in the diagram of our correspondent. Now each geometric center, C and D, at the same time ought to be the optic center of each respective lens, so that the central ray from object through this center (either C or D) to the middle of the pupil ought to suffer no deviation, but be one straight line in either case. This is the reason why we advocated and illustrated a decentration of the lower segment to such an extent that the newly-formed reading combination (segment, together with underlying part of large ellipse,) should have its geometric center D coincide with its optical center, so as to avoid all prismatic deviation. There is, therefore, no difference between Dr. Bennett's view and that of our correspondent. It is only a misunderstanding of words.

Optical Truths

*The Quickest and Best Way to Learn Them
is to take a course at*

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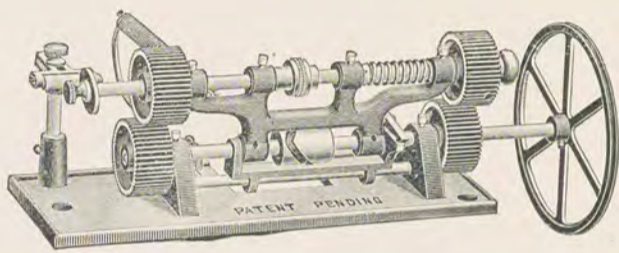
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It will save the time of one man in your shop, as your workman can be drilling and setting up while the next pair of lenses is being ground. By using this machine your stone is also kept in better condition than when grinding is done by hand.

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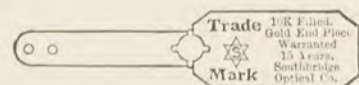
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Ask your jobber for these goods and use these numbers.

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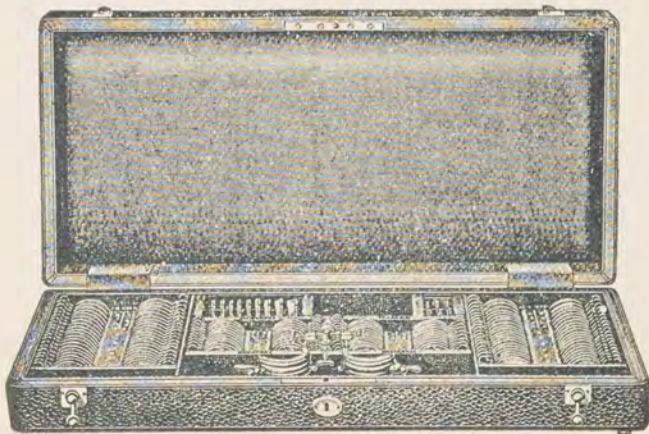
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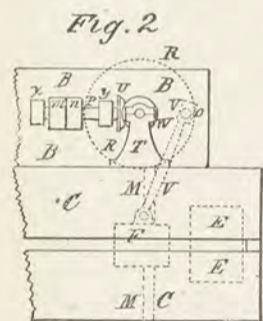
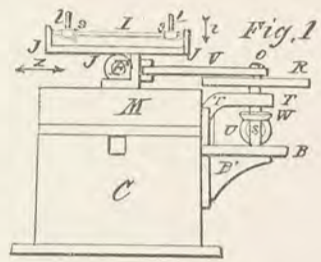
XXXII.

Concluding Description of Forming Cylindrical Laps.



THE next necessary addition we must make to our planing engine for producing cylindrical laps for lens grinding, is to render the machine automatic in all its motions. The first of these automatic motions is to give an oscillating movement in a horizontal plane to the arm G, Fig. 1, page 635, August, 1898, KEYSTONE. This is easily effected by means of a crank located back of the bed C of the cut just referred to. We show at Fig. 1 what is essentially the same figure as Fig. 3, page 635, of our August, 1898, issue, except we have added the necessary parts to produce the automatic motion for the planing bar. These parts are placed on a bracket, shown at B, Fig. 1. This bracket is, in fact, a cast-iron shelf, securely bolted to the base C. We show at Fig. 2 a plan view of this bracket and a portion of the bed C of the planing engine. This bracket supports a vertical shaft, shown at S, Fig. 1, and also separate at Fig. 3. On the upper end of this shaft S is placed a face plate, shown at R. This face plate serves, by means of a wrist pin, shown at o, Fig. 3, to act as a crank to move the planer head F back and forth in the directions indicated by the double-headed arrow, z, Fig. 1. By having several holes in the face plate R, for the wrist pin o, we can give motion of any extent of arc to the planer head F. There is also attached to the shaft R a bevel wheel, shown at W, said wheel gearing into a similar wheel placed on a horizontal shaft, shown at P, Fig. 2. We show the horizontal shaft P separate at Fig. 4. On this shaft goes the bevel wheel U, which gears into the bevel wheel W on the vertical shaft S.

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We presume some of our readers will wonder why we do not place the crank by which the alternating motion is given to the head F on the horizontal shaft P, and thus avoid complication. In reply to such question we would say, it is not easy to give a positive and direct thrust to the head F from such a connection by the pitman V. We can not spare the space for a full explanation, but if the reader will give the problem a mental analysis he will see that a pitman acting from a horizontal shaft would require three joints to connect it, and also tend to give a rocking motion to the planer head. In a precision machine of any kind we should religiously avoid all disturbing influences.

Important Minor Details

We do not deem it important to give all the minor details of construction of the parts shown at Figs. 1, 2 and 3, as they involve no pieces which require special construction, but are such that any practical machinist will see the important points of a glance and arrange the several parts to perform their proper functions without drawings and specifications. The horizontal shaft P is provided with a fast and loose pulley, as shown at m n. It may not be amiss to say that the upper end of the shaft S turns in a strong cock or bracket, shown at T, Figs. 1 and 2, said bracket being bolted to the base C. The horizontal shaft P turns in the studs x y, which are bolted to the shelf bracket B. The reader will remember that we have, throughout this machine, advocated solidity and ample strength of all the parts, and should bear the advice in mind when making these additional parts.

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Automatic Feed

We have now come to the consideration of the automatic feed for the slide which carries the bronze metal lap for grinding cylindrical lenses. The reader will remember that these laps were placed on a special holder attached to a slide on a stud located at the dotted outline E, Fig. 2. This slide and stud are shown at D E, Fig. 1, page 635 August, 1898, KEYSTONE, and the problem in hand is to make the feed of the screw to which the crank L is attached automatic. To aid in our explanation, we show again the stud E and slide D, at Fig. 5. In our former explanation we described how to move the slide D by the hand screw and crank L k, and now we propose to tell how to make the feed movement automatic. The self-movement of the feed screw is accomplished by means of a swinging lever turning on the feed screw L.

We show at Fig. 6 a view of the feed wheel N, Fig. 5, seen in the direction of the arrow t, and also the swinging arm G, shown in dotted outline. This swinging arm turns free on the arbor of the feed screw L, underneath the feed wheel N, but by means of the click u the wheel N can be turned in either direction. In explanation, let us suppose the rod I, Figs. 1 and 6, to carry two movable studs, as shown at s s. This rod I is strained in an iron frame, shown at J, said frame being attached to the planer head F, as shown at Figs. 1 and 5. The idea is, the pins l in the movable studs strike the swinging lever G as the cutter head F is moved back and forth by the action of pitman V and crank wheel R, as shown in Fig. 1.

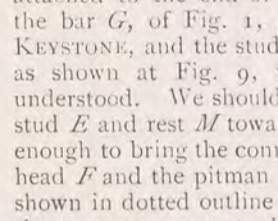
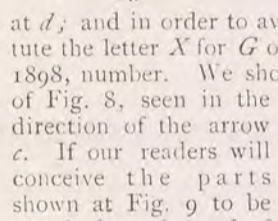
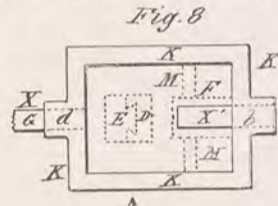
The click u will act in either direction by simply reversing it. We show the click u (enlarged) separate at Fig. 7, the dotted outline showing the reversed position; the feather spring r causing the click u to cling to the teeth in the wheel N. It is evident that inasmuch as the cutter head F constantly swings through the same arc, that it will cause the pins l' to move the lever G alike at every oscillation of cutter head. It is also to be understood that when the lever G swings in one direction the click u goes back, only snapping over the teeth a of N; but on the return of the lever G the click then acts to turn the wheel.

In setting the studs s s, they are arranged so they will carry the wheel N ahead a little more than the desired number of teeth; but in going back the click will partially pass over more than the number of teeth it will carry forward. This will insure a perfectly even feed for each cut. It is to be borne in mind that the feed must represent a definite number of teeth—that is, we can

not use a half or quarter tooth. The wheel N, in actual practice, should be about 6" in diameter, and have about 120 teeth; said teeth should not be ratchet-shaped, but of the form of the ordinary spur gear, as shown at a, Fig. 7.

The next point we have to consider is + cylindrical laps for grinding — lenses. For planing such laps, we turn the stud E, Fig. 1, page 635, August, 1898, KEYSTONE, half around, so that the slide stands as shown at the dotted outline. The stud E must also be changed in position from that indicated by the dotted outline E', Fig. 2, and placed about at the position occupied by the guide M, from the fact that we must plane a lap on the opposite side of the stud, the guide M being placed where the stud E now stands. We have also to make an addition to the bar G, Fig. 1, page 635, August, 1898, KEYSTONE; this addition is stirrup-shaped, as shown at K, Fig. 8. This stirrup is a cast iron frame, about 2" square in section in any portion, while the parts d b are large enough to be bored out and receive the end of the bar G, just above referred to.

The end of said bar G goes into the stirrup at d, while we place a short piece of the same kind of bar in the end b of the stirrup. This will be better understood by inspecting Fig. 8, where the oblong frame K shows the stirrup we are referring to. To understand the cut we must imagine the end of the swinging bar G, page 635, of August, 1898, KEYSTONE, is inserted in the stirrup at d; and in order to avoid confusion, we substitute the letter X for G of the cut in our August, 1898, number. We show at Fig. 9 an edge view of Fig. 8, seen in the direction of the arrow c. If our readers will conceive the parts shown at Fig. 9 to be attached to the end of the bar G, of Fig. 1, page 635, August, 1898, KEYSTONE, and the stud E and support M placed as shown at Fig. 9, the entire scheme will be understood. We should add that in moving the stud E and rest M toward the left, that we do so enough to bring the connection between the planer head F and the pitman V in the same relation as shown in dotted outline at Fig. 2. The idea of the new arrangement, shown at Figs. 8 and 9, is to cause the tool in the head F to plane convex cylinder laps instead of concave. It will be seen that by placing the short piece of bar X' in the stirrup at b we can attach the planer head F to it and have said planer head act as before, except in an opposite direction. The automatic feed will act the same as before, because the stud E is turned to face the cutter head F in its new position. We would beg to say that the planing engine we have described will also produce laps for toral lenses, by adding to the swinging arm X an additional arm, which swings in a vertical plane; the latter arm representing the curvature of the shorter radius. This supplementary arm is placed above the longer arm. Perhaps the explanation will be better understood by referring to Fig. 10, where we show at Y a lap for grinding a + toral lens. The curvature of the lap on the section f is to a radius of 60", while the curvature on the section e is to 42". It is not a difficult matter to make the feed for the new arm also automatic, by following on the lines laid down for the motions described. Laps for both toral and simple cylindrical lenses can be planed in pairs and "surfaced" by grinding them together, as we described for simple + and — lenses; but if such laps are carefully planed with the engine we have described, they will be found to do good work at the outset, and also to wear into more perfect surface as the operation of grinding progresses.



(THE END.)

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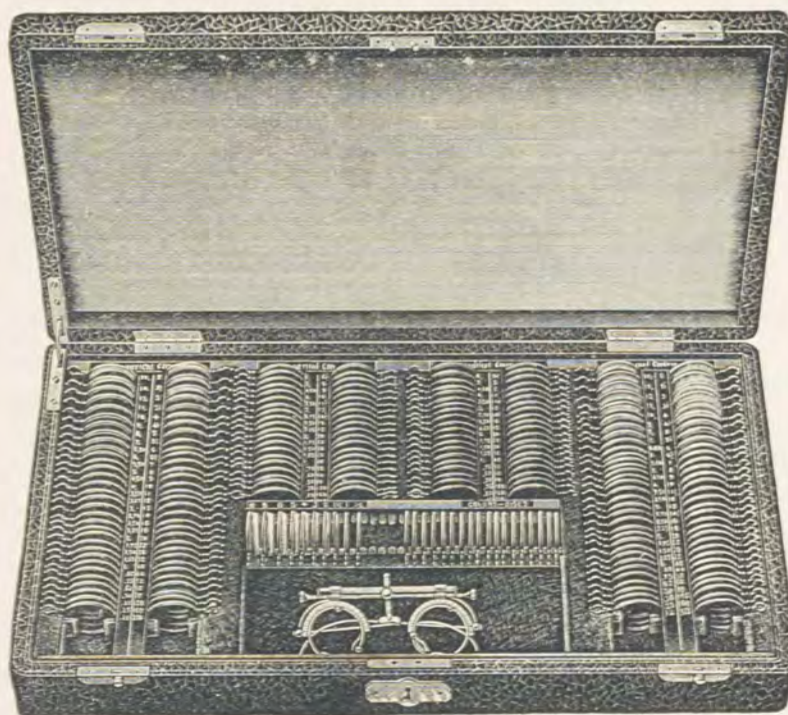
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Eye-Strain in Health and Disease.

With Special Reference to the Amelioration or Cure of Chronic Nervous Derangements Without the Aid of Drugs.

(Continued from page 129, February Keystone.)

The Heterophoric Eye Finally, it is very important that the physician determine (in each patient whose eyes are examined by him) the condition of the muscles of the eye. The term "heterophoria" is generally applied to that condition of the visual apparatus which entails suffering in consequence of a defective "equilibrium" in the muscular power exerted upon that organ when a fixed position of the eye is maintained for any length of time. When a state of perfect equilibrium is impaired from either a weakness or abnormal tension of some muscle of the eye, the effects are likely to become manifested sooner or later by pain and great discomfort after the eyes are used for any length of time. I have seen patients who could not attend a place of amusement, read, or sew, for even a short time, without great distress from this cause. These patients may or may not have a refractive error. In some instances no glasses but *prismatic ones* will benefit them.

A high-couraged horse feels the will, as well as the support, of his driver through the reins by means of the bit. Although his course and rate of speed are changed from time to time at the will of the driver, the reins are never slackened. The horse becomes acquainted with the desires of his master by a sense of increased or diminished tension upon the reins. He is guided to either side by a difference in the tension of the two, although the driver does not entirely relax his hold upon the opposing rein while he uses the guiding one, and the difference in tension may be very slight.

So it is with the normal eye. It is both controlled and supported, while performing its movements within the orbit, by the eye-muscles (which are its reins). The brain is the driver. At its command the eye revolves or remains stationary at any desired point. The tension of muscles, opposed to any movement of the eye required, is so modified by the brain as to insure the requisite support to the eyeball, and to steady it as it moves. Thus a perfect equipoise is constantly established between opposing forces, adjusted with the nicest care to meet the full requirements of the organ under all possible circumstances. The normal eye does not tremble or wobble when it moves or the attempt is made to hold it in any fixed attitude. It is a piece of machinery, perfect in all its parts, reliable in its movements, perfectly controlled by its master.

The eye with muscular insufficiency is like a horse with an inexperienced and incompetent driver; the proper tension upon the reins is not maintained at all times, as it should be; there is no equilibrium between antagonistic muscles; fixed attitudes are maintained with difficulty for any length of time; the brain becomes more or less disturbed by its inability to properly control the eye-movements, and exhausted by the continual strain imposed upon it by the efforts required to do so even imperfectly.

Subjects of this class are *very frequently encountered* in the practice of a neurologist. The oculist, perhaps, sees them still oftener, because they are generally conscious that something is wrong with their eyes. Still, there are exceptions to this rule. I have examined patients who showed, in response to appropriate tests, very high degrees of heterophoria that came to me for the relief of symptoms which had never been referred, by themselves or their physician, to any possible eye-defect. I recall the case of an epileptic who was placed under my charge. His family assured me he had "wonderful eyes," and they were surprised when I examined them with care. The results of this examination showed, however, that twenty-five degrees of insufficiency of the externi existed (as measured by the vertical diplopia test), and that he was hypermetropic and astigmatic to a marked degree.

Insufficiency of ocular muscles seems to me to be a *congenital defect*, in most cases,—possibly

in all. It is encountered in very young subjects. It is not a paralysis or a true paresis. It is not uncommon to note wide variations in the same case, if examinations are made from time to time, under certain favorable conditions. Possibly this fact helps to explain why competent observers do not always estimate the degree of heterophoria in a given case alike, even when similar tests are employed and equal care is given to the case.

We have no way, as yet, of determining "latent heterophoria" as we do latent hypermetropia by atropine. Should a patient show us an error of adjustment counteracted by a prism of a certain angle to-day, it only proves that he has *at least* that amount, not that he has no more. This statement can, I think, be demonstrated. It is an important fact to remember, when the results of examinations of such patients made by one's self are at variance with the observations made by another.

It should be constantly borne in mind that no two cases exhibit identical manifestations of nervous depression or irritation.

Some patients who are suffering from such conditions manifest the effects in physical, others in mental, disturbances. The heart's action may be alone disturbed in some cases, the stomach may give out in others; some may complain alone of spasmodic muscular troubles, some may notice its effects in the eyes, some are rendered sleepless, others may suffer from more or less persistent pains, a few complain alone of skin disturbances, and so on throughout the different parts of the entire human organism.

The reader can understand how these apparently discordant facts may be reconciled when he recalls the fact that by means of the brain and spinal marrow, and the nerves which unite these centers to the different parts of the body, we are enabled to see, hear, taste, smell, appreciate touch, swallow, breathe, and perform voluntary muscular acts. It is by means of our nerves alone that the heart beats; the digestive processes go on without our knowledge or control through the same agencies; the blood-vessels contract and dilate in accordance with the demands for blood telegraphed to the nerve-center by different organs and tissues; and every process pertaining to life is thus automatically regulated. It requires no medical knowledge to see at once how a disturbance of so complicated an electric mechanism as the nerve-fibers and the nerve-cells of a living animal are can upset all or any one of the individual functions enumerated. Many of our houses are furnished to-day with electric bells by means of wires distributed in the walls. In some houses we light the gas jets, and even the rooms themselves, by means of the same subtle fluid. When the battery becomes weak, or when the wires are disarranged or broken, what may be the results? Some of the bells may cease to ring when the button is touched, while others work properly. Perhaps the electric light may fail in some rooms and burn with its accustomed brilliancy in others. The gas jets may not be properly ignited. So it is with the nervous apparatus of man. From the same cause one patient may have nervous dyspepsia, another sleeplessness, a third headache or neuralgia, a fourth weakness of the muscles, a fifth disturbances of sensations, a sixth hysteria, chorea or epilepsy. It is needless to multiply illustrations.

What We Ought and Will Do in Future The time is surely destined to come when legislation (influenced by public opinion) will step in to protect the young from the serious physical effects of eye-strain. Sooner or later we will see nearly every child subjected to an eye-examination before admittance is sought for and obtained to our higher grades of instruction. Not a mere perfunctory set of tests, but a thorough search for existing defects based upon scientific methods, and made by physicians skilled in that line of work.

In this millenium a myopic child will no longer be placed in the row farthest from the blackboard and be held responsible for the stupid mistakes caused by his inability to see. No longer will the excessively "hypermetropic" child

struggle along with headaches, blurring of the type on the page, mental confusion and distress after a prolonged use of the eyes, and the thousand other ills it is compelled now to endure from the ignorance of its parents or medical adviser. No longer will "esophoria," "exophoria," and "hyperphoria" be unrecognized or deemed as of trivial importance; nor will an actual "squint" (of far less clinical importance, although a deformity) be magnified into undue importance.

Life insurance examiners will then deem it necessary to take into consideration the possible existence of these hidden factors of disease before they pass final judgment; physicians will, in time, rely less on drugs as specifics and study symptoms more intelligently from the physiological standpoint.

A very pertinent remark was lately made by one of our most polished orators, when he said: "Many people go through this world like those who ride backward in a railroad train. They never see anything until they have passed by it." So it is with many in our profession. Great advances are always made in spite of bitter opposition, groundless prejudice, and willful misconstruction. Those who stood highest in professional esteem at the time incited the populace to rage when Jenner first advocated vaccination. Harvey was despised because he advocated the circulation of the blood. McDowell was condemned to professional ostracism when he first practiced ovariectomy, yet to-day a costly monument, erected by the medical profession, marks his resting place.

Important Deductions 1. Eye-strain arises chiefly from defects in the refraction of the eye and from an imperfect equilibrium in the muscles which move the eyes.

2. These conditions, when present, tend to cause an excessive expenditure of nerve force by the individual in direct proportion to the amount of defect to be overcome.

3. Excessive expenditure of nerve force upon any one organ is commonly made at the expense of some other organ, or, if not, is paid out of the "reserve" amount of nerve capital possessed by the individual.

4. The extent of the drafts thus made upon the "reserve" capital and the amount of "reserve capital" are the two factors which can alone determine, in any individual case, how long this state of things can last without causing a "nervous bankruptcy."

5. The conditions mentioned as those which chiefly tend to cause eye-strain are transmitted from parent to child; hence they become operative at birth and last until death, unless mechanically or otherwise relieved.

6. They are capable of detection and accurate measurement during life by scientific procedures. Some of the methods employed by oculists in testing the eye muscles are not worthy of perpetuation.

7. A condition of exhausted nervous vitality is sure to impair the general health in many ways, and to render the individual more liable to disease than when in full vigor.

8. Many of the constitutional diseases which ultimately imperil the lives of their victims are indirectly the result of a state of low nervous vitality (a state which is frequently the result of eye-strain, from well-understood causes that might have been easily recognized and relieved).

9. The so-called "inherited predisposition" to certain diseases is unquestionably based, in many cases, upon some anomaly of the visual apparatus. I am so well convinced of this fact that I assert it (without fear of contradiction) from carefully-gathered statistics.


10. The examination of the eye for errors of refraction and accommodation, and a thorough familiarity with the tests lately advocated for the detection of anomalies of the ocular muscles ought not to be confined exclusively to the practice of the oculist.

(To be continued.)

"Eye-Strain in Health and Disease," from which the above extracts are taken, can be had from THE KEYSTONE office on receipt of the publisher's price, \$2.00.

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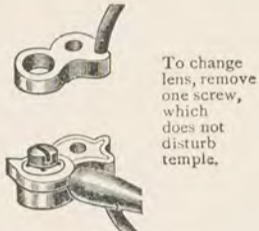
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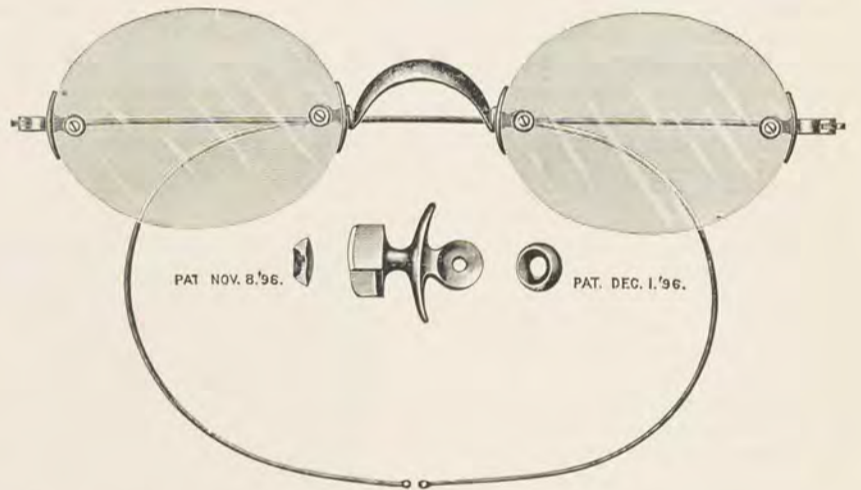
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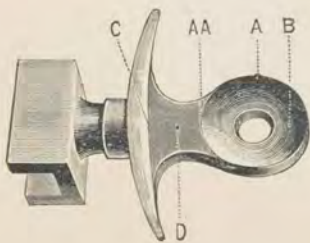


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Optical Organization.

OUR article on this subject in August KEYSTONE has elicited a number of responses from prominent members of the trade. In fact, those who have favored us with their views are so conversant with the matter of optical organization and so representative of optical interests generally, that the trend of their opinions may be safely accepted as that of the trade at large. The very logical contribution of Professor Rogers so elucidates the subject that there is little for us to say. We agree with him, that the one thing to be specially guarded against in organizing a national association, is an initial failure. Failure, at the start, is prejudicial to any undertaking. It is very necessary that a national association should be really national *ab initio*. An abortive attempt of a sectional character would dangerously delay the formation of a really national association, such as all so heartily desire. In the nature of things such an organization must be the crystallization, not the precursor of, of State associations. *E pluribus unum* is as applicable to trade as national unity.

While our correspondents favor the formation of a national association at this time, if the same can be successfully accomplished on acceptable lines, the majority agree with us, that the greater need of the present is for more strong and active State leagues. Secretary Oertel goes a step further in this direction and presents the views now largely held by the officials of the several and local New York State organizations, that local societies are most needful. The experience these officials have had in optical organizations certainly entitle their views to consideration.

Protective Features

It is almost generally conceded by our correspondents that the objects of organization should be, first, protection, and, second, education; but various are the means suggested to accomplish these. Dr. McCormick suggests that a paid secretary would be able to secure necessary protective measures. We doubt if the officers and executive committees of the States that have had experience in fighting adverse legislation, will agree entirely with this assumption. Large sums have been expended, and the united and laborious efforts of officers, members and trade journals were found necessary in several instances to defend the opticians' status; and it is questionable whether any one official, however efficient, could cope with dangers that will probably have to be met. This protective aspect of organization we believe to be of the greatest importance, and a proper realization of it will prove to be the greatest incentive for the formation and maintenance of valuable State leagues.

Educational Advantages

All are agreed that the best possible educational features should be afforded by the State and local societies, and almost without exception all the active societies already formed have done more or less in this direction. Various plans have been tried and experiments made, looking to the securing of the best results with the means available; indeed, we know that some of the societies have expended by far the greater part of their receipts in this direction. We do not think there will be much difficulty experienced in any organization on this feature.

Qualifications for Membership

There is another aspect of the situation, however, that has called forth wider differences of opinion, and this also refers to the societies already formed. This relates to the qualifications for membership. Who shall be admitted and who barred? Is an examination as to the knowledge of the applicant in refraction of the eye an essential? Or should any applicant, duly endorsed and in good standing in the various branches of the trade, be eligible? The question seems to be an embarrassing one. It is argued by some that an examination restriction will limit the membership greatly, while others contend that it will attract those who would be very desirable members and who would not otherwise be attracted. Two of the present optical societies have established the examination system. The Pennsylvania Society now gives examinations and confers diplomas on members, but the passage of such an examination is not necessary to membership. The plan of the New England Association is to make an examination necessary to membership.

Views of Leading Members of the Trade.

ED. THE KEYSTONE, SOUTHBRIDGE, MASS., August 15, 1898.

I do not believe the time is ripe for a National Association, and have somewhat of a question as to whether it ever will be, when a National Association of this kind can be made a success. The reasons are self-evident. First, the enormous distance the optical centers are situated from each other would prohibit a large attendance at one point, on account of the time and expense entailed. Again, I hardly see where the optician of Denver, for instance, is particularly interested with the optician of Bangor, except in a general way. In case it was thought advisable that such an association should be formed, I do not believe the manufacturers should have anything to do with it. My opinion is, also, the jobbing houses would not be particularly interested, and I do not see why they should be members. There are certainly opticians and dealers enough to make a strong association, both in ability and numbers.

I do believe the local opticians in the various States, or groups of States, that are situated within easy touch of each other, can derive a good deal of benefit from getting together and comparing notes and learning the different ways of doing business, all of which will create a general good feeling as well as act as a protection against unjust legislation, etc. I believe, also, these local associations should be formed throughout the country before any steps are taken for a National Association, for reasons above given.

Respectfully yours,
 GEO. W. WELLS.

ED. THE KEYSTONE. NEW YORK, August 16, 1898

A National Association of opticians, if it is to exist at all, should represent the crystallized efforts of the various local and State societies already in existence. It is far more logical that such an association should be the outgrowth of a concerted demand from the societies already in existence than to start an independent organization, whose one of its various functions would be to procreate minor independent societies; if such a plan proves successful, it will flatly reverse all precedents in the organizing line.

At the Medical Congress held in Denver recently, the ophthalmological section was attended by just seventy mem-



L. L. Ferguson.

bers, and it is safe to assume that out of that number at least forty were from either Colorado or contiguous States, therefore, it practically amounted to a local gathering; now, if after all the years of their organization, ethics and other cohesive influences, they can muster out such a meagre gathering, what must we expect in point of numbers, from a national gathering of our profession?

Undeniably a virile National society would give us great prestige and assistance, and when the time is ripe for such an organization, i.e., when there are sufficient local societies to sustain it, there will be one, and a vigorous one at that; however, if from one they will, my support may be relied upon, but if it be formed and then fails of its aims and purposes, through being launched at an inopportune time, it will defer the ultimate accomplishment of the scheme immeasurably.

L. L. FERGUSON,
 Pres. New York City Opt. Society.

ED. THE KEYSTONE. TOPEKA, August 17, 1898.

I heartily concur in the matter of Opticians' League, and would much rather put whatever energy and money I may have to put out in a State League rather than a National Association, knowing that the National Association can accomplish little or nothing in any State.

Truly yours,
 W. J. LEWIS.

STOUC CITY, IOWA, August 15, 1898.

ED. THE KEYSTONE.

The various plans mapped out for National organization on page 636, August number of THE KEYSTONE, all have merit; also, I think, some disadvantages.

I should favor most a National organization separate and distinct from State at the present time. Later, however, after a majority of the States are thoroughly organized, it might be well to consider a plan of uniting as a whole by a National organization. Such an organization would be of great benefit if all the manufacturers and jobbers would interest themselves in it. I favor a meeting in Chicago for the purpose of forming such an organization.

J. C. CLARK,
 Secretary Iowa Optical Society.
 (Continued on page 716c.)



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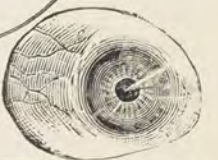
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DR. G. A. ROGERS,
PRESIDENT.

Optical Organization.

(Continued from page 716 a.)

ROCHESTER, N. Y., August 11, 1898.

ED. THE KEYSTONE.

I do not believe that the majority of opticians are ready for National organization. The local and State societies are yet but fairly under way, and they fail to attract to their meetings but a comparatively small number of the more prominent opticians. If, then, a great majority of those engaged in the optical business cannot afford, or to put it more truthfully, have not sufficient desire to attend an optical meeting which will take them but a few miles from home, how can we expect these same men will go thousands of miles to attend a National meeting? That such a meeting might be well attended by the manufacturing and wholesale opticians I can understand, but I do not believe that it would draw even a fair representation of retailers.

Very truly yours, W. W. BISSELL,
Treas. Rochester Optical Society.

Aims and Forms of Optical Organization.

By CHARLES McCORMICK, M. D., Chicago.



Charles McCormick, M. D.

In response to THE KEYSTONE'S invitation for the views of the trade relative to the organization of those engaged in the practice of treating with glasses defective eyes, and the ills which have their origin in those defects, I have to say: I believe the project is feasible and the time is always ripe for advancement. The chief obstacle in the way of

its immediate accomplishment appears to be a lack of unanimity of ideas as to (a) what constitutes an optician, oculist, refractionist, or whatever he is to be called; (b) what the objects of the organization are to be; (c) the methods by which those objects are to be achieved. Whether it will be possible to fuse these diverse opinions into a practicable whole remains to be seen, and depends largely upon the elimination of all ideas of personal glory or political self-interest.

When the words "oculist" and "optician" were coined nothing was known about the correction of errors of refraction, and the first named was understood to be a doctor of medicine who treated diseases of the eyes and performed operations upon them, while the second was regarded as a maker or vender of glasses. In these days, when the last-named has discovered that he can measure and correct deformities of the eyes, and thus, through the nervous system, reach and cure ills which baffled the skill (?) of the old time oculist, he feels like he is entitled to a new name. He is afraid to say he is an oculist lest some Anthony Comstock cause his incarceration in a dungeon by virtue of a medical-practice act. And, no matter how much he knows, or how well he can prove his ability to cure so-called diseases with his correcting glasses, he timidly declares he only "treats light." He calls himself a refractionist, an optician, a master of optics, etc., or sticks to the old word, optician. According to his practice and its effects he is more of an oculist than he is an optician, and should be taught to feel that the value of his services is superior to either.

According to what one ought to know in order to practice in the best interest of the public, the term ophthalmologist (one who understands the science of diseases and deformities of the eye and how to treat them) seems to me the most appropriate.

Objects of Organization

The objects of such an association must be two, viz.: Protection and advancement. It should be remembered that "inherent rights" are vested in the people as a whole, according to the United States Constitution, and that any statute which interferes with those rights is obviously void, and only needs the judgment of an honest court to put a quietus on it.

The optician, as such, has no inherent rights. The physician, as such, has none. Neither has the lawyer, the merchant, or the mechanic. True, there have been passed laws which give to some special privileges in consideration of

special preparation, but the constitutional object of those laws is to protect the public.

Dishonest organizations have frequently attempted, and in many instances, accomplished the feat of securing enactments which afford to their members certain rights which are denied to others equally competent, and the only reason these laws remain upon the statute books is they have not been analyzed by the courts with the aid of competent attorneys.

An important point in this discussion is to decide what are the qualifications necessary to entitle one to practice the profession. Certainly not an "emblematic button," nor a "handsomely-framed certificate of membership" of a National or State society. And I do not believe a diploma from a medical or optical college should be accepted as evidence of competence. The honest man, who understands his business, will welcome an official examination for the advantage his license will be to him in the estimation of his patrons. The dishonest man will seek to avoid an examination he knows he cannot pass, and if he can secure the passage of a law which exempts him on the ground that he is a master mechanic, a chemist or a physician, he will not be slow in settling his share of the expense, because he knows the public will ultimately foot the bill.

If an organization be formed upon the lines thus far suggested, I fear it will comprise too many who are so incompetent they could not qualify to practice under a just law, and if they should be licensed because of their membership in the organization, the act which permitted it would be as great a humbug as the ones which now shield incompetent physicians in their experiments with drugs, and which they use as weapons to crush investigation not in harmony with materia medica and dominant schools of practice.

In view of the facts that more than ninety-five per cent. of the cases in which the eyes are affected require no medical treatment whatever, and that errors of refraction are measured with mechanical appliances and with mathematical accuracy by skillful ophthalmologists, I can see no reason why the practice should be restricted to the medical doctor. The competent ophthalmic specialist should and does know how to detect diseased conditions, and his integrity may be relied on to see that proper medical treatment is secured.

If further evidence is desired that the general medical practitioner is not entitled to exclusive rights in this line, let anyone who is interested call upon ten of his medical friends and question them upon the anatomy and physiology of the eyes, and upon the subject of errors of refraction and methods for their correction. And, further, let him call upon the so-called oculists and he will find seventy-five per cent. of them have no more idea of conjugate foci, nodal points, the principles of refraction generally, or the mechanism of accommodation than a goat has about St. Patrick's day. They will admit they never took special instruction upon the subject, and will aver they do not need it.

If the society will make it a condition of membership that each individual obligate himself (or herself) to take the legal examination as soon as one is provided for in the State resident, it will not only overcome the objections to which I have called attention, but it will commend itself to the more favorable consideration of honest legislators and will present a more formidable front to its opponents. So much for protection.

Form of Organization

The matter of the advancement of the society generally and its members individually, could be accomplished by a librarian, who should also be secretary, and who should be paid a good salary and devote his whole time to the work. He should be chosen with especial reference to his knowledge of ophthalmology, his diplomatic ability, and his fighting qualities when crowded, and he should hold office during good behavior. I do not relish the idea of honorary offices. This is not to be a mutual admiration society, but an army of conquest—peaceful if possible, but war to the knife if any person or body undertakes unfair tactics.

There should be a president, vice-president, treasurer and executive committee elected annually, to serve without salary, and their first duty should be to establish a policy which will determine quickly who are friends and who are enemies; then let the secretary be instructed to act accordingly.

The first effort in the way of legislation should be to secure the passage of a law recognizing ophthalmology as a distinct profession, and conceding the right to its licensees to use the drugs necessary to control ciliary spasm, while errors of refraction are being measured. The medical profession can have no objection to this, because the eminent Dr. Savage testifies that the use of mydriatics may be safely

committed to the office girl, and all honest practitioners must agree with him.

National and district conventions could be held under the auspices of local merchants in the cities where the meetings occur, and they will no doubt gladly contribute the expenses of hall rents, etc., not as a donation to the organization, but as an honest bid for the patronage of individual members.

Yes, I think the time is ripe for organization, and if it is not done soon there will be occasion for regret.

ED. THE KEYSTONE. AUBURN, N. Y., August 16, 1898.

I have read with interest the different articles recently published in the trade papers in regard to some sort of a National optical organization. I am in favor of some such a plan, but think it will be difficult to organize and maintain so large a society without first having more State and local societies, such as are being organized throughout the country. I think such societies should be conducted along the line of protection and educational advancement for the optician; and to do that it would be necessary to have at least six meetings a year—twelve would be better—and that can only be accomplished by local societies.



F. L. Swart.

Of all the ideas advanced, so far, I think the "Opticians' League" by far the best, and if such an organization is formed you may count me in as a member.

As a source of information, I think the directory of optical societies published in THE KEYSTONE monthly is all right.

Respectfully yours,
FRED. LELAND SWART,
Pres. N. Y. State Ass'n of Opticians.

ED. THE KEYSTONE. SYRACUSE, N. Y., August 15, 1898.

I believe in optical organizations, as they benefit the opticians in a great many ways; but think that there should be a better understanding amongst these organizations, otherwise the desired effect cannot be reached as well. I believe that there should be a large number of local societies composed of opticians living in a certain section or district, who can elect delegates to form a State organization, which, in turn, can elect delegates to form a national organization, if it be deemed advisable. Each society will then be related to each other, and the interests of opticians would be better guarded. But, in the first place, I believe that local societies are of the utmost importance, as in such local organizations any feeling or trade jealousies can be wiped out, and the opticians can become better acquainted with each other. The expense of attending these meetings will not be great, and consequently there would be a larger attendance, especially if the society would have a lecture delivered that would be instructive to opticians. The State society would be a legislative body, only looking after the interests of opticians in general and devising plans for our advancement in the State. The National body would work on the same lines, but its work would be more general. This plan, you will notice, is similar to that of most of our fraternal organizations that have been in existence for many years, working with great success; and I see no reason why we, as opticians, cannot be just as successful if we combine. *Our cause is a just one*, and if all opticians do their duty, the result will be gratifying to us.

Hoping that this may pave the way for a better understanding amongst optical societies, I remain,

Yours truly, WM. D. OERTEL,
Sec'y N. Y. State Ass'n of Opticians.

ED. THE KEYSTONE. AURORA, ILL., August 2, 1898.

I think the State organizations should be extended to every State, so far as possible, before forming a National League; then we will be stronger and in better condition to carry it through. However, I will act with the majority. In fact, any way to promote our interests.

Every State could have an organization inside of sixty days if some one will only start it along and push it.

Yours truly, A. R. CHAMBERLIN.

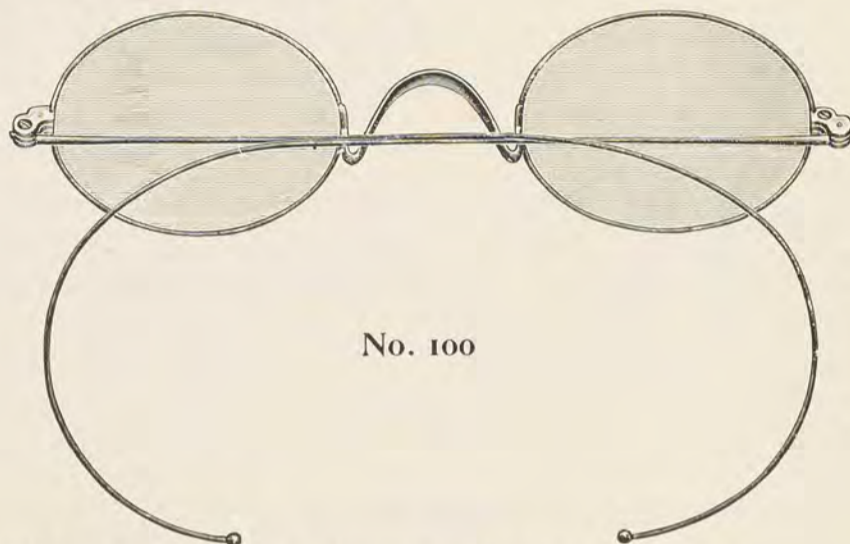
(Continued on page 716 c.)

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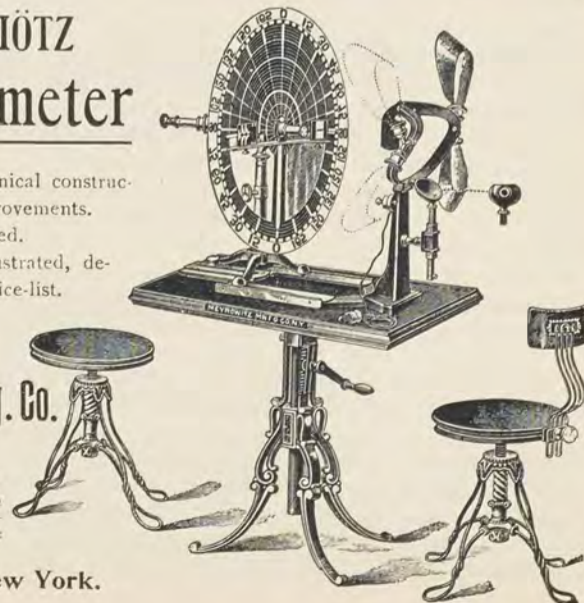
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Optical Organization.

(Continued from page 716 c.)

BOSTON, MASS., August 13, 1898.

ED. THE KEYSTONE.

In the increase of optical societies in the different States the problem of the National Association will doubtless find its own solution when the time is ripe. With each State organization electing its representatives, and contributing pro rata according to its membership annually towards the support of a national body, an annual meeting, and a comprehensive exhibition of optical instruments and processes, at such a time and place as might be agreed upon, would be a direct benefit, not only to these organizations, but to the entire trade and the public at large.



W. R. DONOVAN.

Yours very truly,

W. R. DONOVAN, Sec'y,
New England Asso'n of Opticians.

PHILADELPHIA, August 11, 1898.

ED. THE KEYSTONE.

I believe a National Association of Opticians is desirable if practicable, and the only way to test its practicability is to try it. It would be much better to have some prominent man, such as Mr. A. Jay Cross, or Mr. Geo. Wells, or Mr. Bausch at the head of it, but these men are too busy to touch it, and the only thing is for some lesser light to tackle the problem and the heavy weights help him out.

Therefore, even if the first man who attempts to solve the problem should fail, a second could profit by his mistakes and we had best help those who try. Fools rush in where angels fear to tread, but if it were not for these rushes the world would be a very slow place. I have applied for membership in the proposed National Association, not because I think it ideal, but I have neither time nor inclination to propose a better, even if I could. I would be very glad to belong to such an association because I think they could be great educators.

C. A. LONGSTRETH,
Secretary Penna. Optical Society.

Opticians' Leagues.

Further Suggestions as to Organization for Protection and Unity of Purpose.

By DR. G. A. ROGERS, Chicago.

THE KEYSTONE considers that the time is ripe for thorough organization among opticians. It has recommended the plan of forming State leagues, which would eventually crystallize in national organization. This, in my opinion, is a more practicable plan than to attempt, at this time, to launch a national association.

While the material out of which to construct the larger organization is abundant, it lacks as yet the elements of coherency, and, of all things, a fiasco resulting from a premature attempt to do something big is to be avoided. The national association when it comes, must be strong; because of its rootlets, its penetration into the most remote optical soil, that is, it must include the most out-of-the-way and humble elements of the profession, and reach all territory. But without preparation for organization, opticians would take little interest in a big national affair—that is, those elements of the profession it is most desired to reach. A nearer at home, more convenient and less august first effort would do better to start with.

A really "drawing" association of any kind is one that it pays its members to belong to, one that is useful to them, one that confers practical benefits upon them. The first work of an organization of opticians in any State, or in all of the States, is going to be at home to center around the State capital, and there it, and its members, will acquire the experience needed to make them a coherent and purposeful society. When representatives of a system of State leagues, trained not only in the professional aspects of the business of optics, but acquainted with the obstacles that beset the profession and the best practical means of surmounting

them, come together, you will have an association worth attending, for the attraction will be the thought and inspiration to be obtained from it.

A national association thus composed of members acquainted not only with conditions in little communities, but with the general conditions throughout the different States and with definite experiences, both as opticians and associates, to speak from, would have something interesting and instructive to tell. The members would hear what forces of resistance to the profession are at work, how they are applied, and how they may be overcome. The gathering would be neither one of those "still born" affairs, not knowing the meaning of its own existence, nor one of those flamboyant affairs, making up in noise and show for its utter want of design.

By all means let us have a national "association"; but a national "conglomeration," that is a thing to be dreaded. As few States have the semblance of an organization, let us begin to build a national association by putting in a few corner and supporting posts—that is, start with the State league.

The Membership to Seek

Whom is it desired to interest in optical organization? Certainly not the manufacturer, inventor and dealer in optical goods, the teacher and publisher and publican generally. They are going to be interested in any sort of an optical society as a matter of course. It is the practitioner whom it is most essential to attract; and to attract him, something he feels the need of must be laid before him. Noise won't draw him out of his course. Neither will display. A grand "blow out," a big dinner, steamboat excursions, red fire, etc., may excite his curiosity, and if he is near by he may go down to see it, but it will not be a thing of which he could feel himself to be a part. The writer has seen this principle work out in similar associations, as The National Teachers' Association, which only became a success after the book publishers and school furniture dealers were reduced to a subordinate and inconsequential place, and the profession of teaching in all its aspects became the one irresistible attraction. It will be the same in organizing opticians. Something more than a material show is required to strike the real chord that will draw opticians out and get them together. There is no possible objection to manufacturers, inventors, dealers, teachers and publishers participating in such an association, who appear there as opticians; nor can there be any objection to a display, on their part, of the goods they have for sale; but opticians will not be interested professionally in an optical display, with professional features as a side show. The whole animal is going to take on the character of the central idea in it, and that, under a conglomerate plan, will be the optical merchandise display, which, however proper in its place and under its own name, is not an association of opticians in the sense in which we desire to see State leagues and general organization of opticians effected. The trade and the profession occupy reciprocal relations, mutually pleasant and profitable, and both are concerned in whatever is of an optical character, but from different standpoints. Their interests fuse in certain particulars, blend in others, and are separate in others. It is with that phase of the professional aspect that will not and cannot fuse with the commercial or trade aspect that the want of organization prevails. The optical journal, which occupies an intermediate position, and is the go-between of the two, has intimate relations with both classes. It knows, or should know, the needs, demands and aspirations of the professional class, and the enterprise and purpose of the trade. To harmonize the two factors so that each shall get exactly what it requires is often a nice question of judgment. In this matter of national organization, and organization in general, we should give precedence to, and make all effort center around, the practicing optician, and be for the benefit of his business and position before the public, for that is the sure way of prospering both parties.

Most Needed Objects

What is most needed in State societies to begin with is numbers; and by numbers I do not mean the mere names of a few hundred opticians scattered through a State, but active, interested, co-operating members who will put forth physical effort to make the league a success. There will be no trouble in getting members as soon as the opticians know that it is all right, that it is their affair, and what it is going to do for them. There is work to be done by each State league from the beginning that will tend to give them coherency and strength, for resistance will come from the outside. The league will thus be a wedge which will have to be driven, by united action, through a more or less coherent resisting

medium. Opticians will have no difficulty in seeing that their place is behind the wedge and that their mission there is to push. In this perhaps first action of the league, members and influence will count and tell a good story of victory; or the want of numbers may make it incumbent upon the few to confess inglorious defeat. It is not a proper time, with this work in front of it, to discriminate in the matter of qualifications; the profession must be taken for the fact; in the absence of a standard nothing else can be done. What the optician needs most to concern himself about at this time, is how to avoid being legally disqualified himself from pursuing his profession, rather than how to put the proper limitations upon his associates in optics. The former problem is much more pressing than the latter. In optics as in most human interests, numbers will count first, and with objective resistance and subjective affinity to drive and draw them together, there ought to be no trouble in forming in each State a good working membership, including all who are engaged in the business or profession in every part of the State.

Co-operation Invited

I regard the State league as the line along which the advance for optical organization should be made, and would invite opticians to send to THE KEYSTONE their views upon the subject, especially those opticians who deal directly with the people—the optical practitioners—for they are the men we are after above all others. Get them to head the procession and the band wagon will follow where they lead, for trade will seek its customer always. The plan should be the same for different States, so that coalescence into a national league may be natural and without friction, and so that when a blow is struck in one State it will reverberate across the border and help the societies of other States. We desire to see the time when oculist and optician will work in harmony, and the way to bring about that harmony is to inspire the oculist with a wholesome respect for the optician. There are two ways or modes of treatment by which this result may be reached. One is to attract him by your courtesy and make him love you. The other is to make him ridiculous and fear you, for of all things a physician dreads most to be laughed at. It is the one thing he cannot stand. To do these things you must know your business, which is a good thing for you. Get him off that lofty pinnacle of self adoration by one means or the other, and he becomes quite a sensible and pleasant person to do business with. Until he condescends to confer with you don't consider the job complete. Make him feel you and your influence whether he sees you or not. If you really have to fight him don't get whipped. The profession depends upon you to take care of its reputation.

Doings of the Optical Societies.

Attention Illinois Opticians.

A meeting will be held in Parlor O, Palmer House, Chicago, 10 A. M., September 15th, for the purpose of optical organization. Every optician in the State is earnestly requested to be present.

Iowa Optical Society.

J. C. Clark, Sioux City, Iowa, secretary of the Iowa Association of Opticians, desires THE KEYSTONE to state that he wishes to hear from every optician in Iowa who has not thus far received the Association's circular letter with application blank. The certificates of membership in this association are lithographed, and make an attractive addition to the appointments of the optician's office. As Mr. Clark states, "it is a duty of every Iowa optician to his own interests to become affiliated with the organization."

Annual Meeting of the Pennsylvania Optical Society.

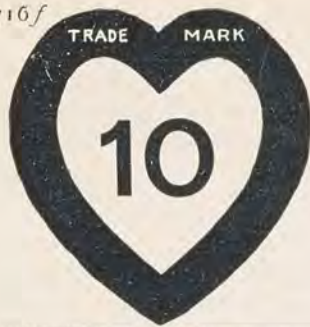
The following circular letter has been mailed to the members of the Pennsylvania Optical Society:

PHILADELPHIA, August 20, 1898.

DEAR SIR:—On Tuesday, September 13th, the third annual meeting and banquet of the Optical Society of the State of Pennsylvania will be held at the Hotel Walton, Broad Street below Locust, Philadelphia.

There will be three sessions. In the morning, from 10 until 12 o'clock, and in the afternoon from 2 until 4.30. Prof. L. L. Ferguson, the noted skiascopist, will give two demonstration lectures on the shadow test, including personal and individual instruction to our members in the measurement of errors of refraction by the plane mirror.

(Continued on page 716 g.)



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 Service means accuracy.
 Service means extra quality.
 Service means pleasing your patients.
 Service is obtained by experienced workmen.
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This simple invention is an entire **NEW DEPARTURE** in the method of retaining spectacles **BEHIND** the ears, and offers the spectacle wearer the following

PRINCIPAL ADVANTAGES:

- (1) The "Aurocoone" CANNOT HURT or BIND the Ears.
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- (3) The "Aurocoone" is held FIRMLY and PERMANENTLY in position independent of any device, yet loose enough to be entirely COMFORTABLE and PLEASANT. For the upper part of the ear behind which the "Aurocoone" is held, acts in a SPRING-LIKE MANNER, thus relieving any pulling, drawing strain, pain or sensation found in all old-style riding frames.
- (4) The old-style riding frames are often too long, therefore too loose, or too short, and therefore too tight. The "Aurocoone" is never too long, nor too short, for it does NEVER require any adjustment. Once fitted properly the "Aurocoone" cannot lengthen out or shorten—it always remains the same length, the proper fit.
- (5) The Temples of the "Aurocoone" do not come in contact with the ear.
- (6) There is nothing extending in the rear of the cone-shaped retainer of the "Aurocoone," in contrast to the old-style riding temples, which have the wire embracing the ear.
- (7) The "Aurocoone" Spectacle Temple CANNOT BREAK. For it is well known that in the old-style riding spectacle temples, that part which embraces the ear, often through rusting, bending or adjusting, breaks. THERE BEING NO EAR-EMBRACING WIRE ON THE "AUROCOONE" IT CANNOT BREAK.
- (8) The "Aurocoone" Tips, properly fitted, are entirely invisible when looking at the person wearing them.

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H. M. MARTIN, M. D., PRESIDENT.

Surgeon-in-Charge.

PACIFIC OPTICAL Co., Los Angeles, Cal.

Chicago, August 6, 1898.

Dear Sirs:—We have carefully examined your "Aurocoone" Spectacles, and consider them the most advantageous improved spectacle on the market. We particularly note the ease of adjustment, the uniform maintenance and permanency of position while in use, and the comfort to the patient. They are especially the ideal spectacles for prescription work.

DR. H. H. MARTIN, Pres.

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Plain office talks in type in a dignified original style.
 Talks that bring trade—not the stereotyped kind you see floating round the country.
 Ads. that have made business for me—will do it for you.
 You never saw one of them—money back if you did.
 I know how to make type and printer's ink bring people into the store or office. Let me bring them to you—"You do the rest."

**WM. E. HUSTON,
 GREENFIELD, IND.**

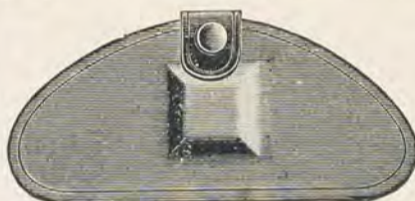
This border 5 cents an inch, 4 eye corners 40 cents.

99 JEWELERS ADS \$100

The success and praise accorded my "99 optical ads." has led me to compile, and place upon the market this lot of jewelers ads, about equally divided between repairing and stock. Plain, honest, argumentative talks—the kind that you should use now to influence Fall and Holiday trade. Printed copy—catchy head lines—40 to 200 words in each ad.

**WM. E. HUSTON,
 Greenfield, Ind.**

This border 10 cents an inch, 6 extra ads. for mentioning KEYSTONE.



**Koenen's Improved Shell Case
 FOR OFFSET EYE-GLASSES.**

Made in STEEL and ALUMINUM, being the lightest, strongest and best case made. Covered with the finest grade of leather. Manufactured and patented by

A. KOENEN & BRO.,

Sold by the Jobbing trade. 81 Nassau St., NEW YORK.



EXTRA THIN.

IN TWO SIZES, THIN AND STRONG.

Klein School of Optics,

2 Rutland Street,

BOSTON, MASS.

The regular school year begins
 October 1, 1898.
 Matriculation, September 29, 1898.

This is the most scientific and practical optical school in the world. The instructions given include examination of eyes for glasses and for diseases; the use of the ophthalmoscope, ophthalmometer, retinoscope, perimeter, optometer, phoroscope, refractometer, test case, prisms, etc.; surface grinding, edge grinding, setting up rimless and bifocals, making and repairing frames. This is the school for beginners, for opticians and for physicians. Our clinics, which are the largest connected with any similar institution, serve to make theory and practice go hand in hand. Send for catalogue.

Address,

**KLEIN SCHOOL OF OPTICS,
 2 RUTLAND STREET,
 BOSTON, MASS.**

**KELLAM & MOORE'S
 College of Optics (Incorporated)**

ATLANTA, GA.

Two Courses—

Attendance and Correspondence.

These Courses embrace instruction in

*Anatomy of the Eye,
 Physiology of Sight,
 Physical Optics, and
 Anomalies of Refraction and
 of the Muscles of the Eye.*

Our diploma insures thorough qualification.

Address **Kellam & Moore's College of Optics,
 Atlanta, Ga.**



Retinoscopy

taught in a plain and concise manner. The optician who knows how to use the Retinoscope, the Ophthalmoscope and the Ophthalmometer has the advantage of his fellow optician who is tied to the trial case and the patient's uncertain answers. We **DO NOT** teach a correspondence course, for the reason that we know students **CAN NOT** become proficient without a personal attendance and practical instructions. Our motto—"QUALIFICATION first; DIPLOMA second." A large **FREE CLINIC** is one of our special features. **JEWELERS, WATCHMAKERS and OPTICIANS** should attend our next course, beginning October 12th. Tuition and Diploma **\$40.00**. Write for Catalogue.

Kansas City Optical College
 10th & Walnut Sts. KANSAS CITY, MO.

Doings of the Optical Societies.

(Continued from page 716c.)

The annual banquet will begin at 7 P. M. and last the entire evening; between the courses the annual election and other business of the Association will be transacted. This early hour has been selected in order that members from a distance may be able to catch the late trains and yet lose none of the important parts of the meeting. Officers to be voted for at the annual election are: Second vice-president, secretary, two auditors and three members of the executive committee.

The instruction in the use of the shadow test and the banquet are free to all members of the Association; no outsiders will be admitted.

Please send word, not later than September 1st, on enclosed postal, whether you will attend the lectures or banquet, or both, as we have to know the number who will attend each in time to make the necessary arrangements. If you attend the lectures, be sure to bring a plane mirror with you.

Every member of the Association will make a great mistake if he does not avail himself of this privilege of taking, free of cost, personal instruction in the shadow test from Professor Ferguson, who is one of the greatest living exponents of this science, so very important to the optician. Attend both morning and afternoon sessions if you can; it will pay you. If you cannot go to both, either will be complete in itself.

Yours respectfully,
C. A. LONGSTRETH, Sec'y.

The Keystone Thanked.

ED. KEYSTONE. SYRACUSE, N. Y., July 26, 1898.

At the last meeting of the New York State Association of Opticians a vote of thanks was extended to THE KEYSTONE for donating for our library a copy of "The Optician's Manual." The members appreciate your kindness in their behalf.

Yours truly,
WM. D. OERTEL, Sec'y.

Cleveland and Northern Ohio.

The past month has been up to the average in volume of business. Just now the buyers for the different houses are in the East after the latest novelties in the importers stocks as well as domestic goods. Everything points to an unusually good fall trade, and the jewelers at large are preparing to meet the demand. It is a pleasure to report that among the local trade there has been a good demand for expensive pieces, something unusual for the past few years.

The Schauweker Bros. Co. have withdrawn from the Hoyt Co., 102-106 Euclid Avenue, and are now located at 16 and 18 Colonial Arcade, occupying a double store which has been fitted up very attractively.

Capt. R. E. Burdick, of Co. A, 1st Ohio Cavalry, is home on a thirty-day furlough. The Captain has lost much weight, and is said to weigh forty pounds less than at the beginning of the war.

D. V. Arnstein, of Arnstein Bros. & Mier, was in the East the past week looking over the new goods and making selections.

The Grant Whittlessey Optical Co. are now located in their new rooms in the King & Uhl Building, occupying the third floor.

J. F. Sipe, of Sipe & Sigler Co., is in New York on business connected with the firm.

E. A. Padrieth, formerly with Eugene Diemel, Detroit, is now representing Scrilmer & Loehr on the road, traveling through his old territory.

J. R. Stebbins, formerly located in Ashtabula, is now connected with Bowler & Burdick Co. as salesman. Mr. Stebbins comes well recommended, and will undoubtedly succeed in his new position.

Mrs. C. W. Corns, 1246 St. Clair Street, has made an assignment to Attorney Frank Billman, the assets and liabilities are about equal. Mrs. Corns hopes to resume business at an early date.

J. M. Chandler, of Providence, R. I., is calling on friends in the trade. Mr. Chandler was for many years in the jobbing business in this city.

Two young men, formerly associated with the wholesale optical houses, have opened up a small manufacturing plant under the name of Williams & Barth, mfg. opticians.

R. G. Nelson, formerly with Nelson & Sons, Toledo, Ohio, is now associated with Bowler & Burdick Company as general salesman.

Clark Sloane spent the past week in Chicago on business and pleasure.

Ed. Quinlan is passing cigars around over the arrival of an heir. It's a boy.

Messrs. A. D. Weed and O. P. Rowley, travelers for Bowler & Burdick Company, report a fine trade on this, their first trip for the season.

B. Buckley has opened a new store at Mendon, Ohio.

R. L. Goldbach, Chagrin Falls, was shipwrecked on his way to the Klondike. The boat on which he sailed foundered off Dutch Bay, Alaska, some time during July. Mr. Goldbach was among the rescued.

James B. Rodgers, Bedford, Ohio, was married the first of the month to an estimable lady of his town. THE KEYSTONE extends congratulations.

O. C. Kennedy, Bellefontaine, Ohio, has sold out his stock and fixtures.

N. C. Fisher, Lorain, Ohio, was a trade visitor the past week and left good orders among the jobbers.

C. M. Wilson, Salem, Ohio, was a buyer in the jobbing houses recently.

Patrick H. Reason died in this city last week after a lingering illness, which lasted six months. Mr. Reason was at one time in his life a well-known engraver to the jewelry world. For many years he was with the Harpers as designer and engraver for their celebrated monthly magazine. After the Civil War, Messrs. Hogan & Wade, the leading jewelers of a quarter-century ago, brought Mr. Reason to this city, where he has since resided. In earlier years, being a colored man, he spent much time in the abolition movement and was ever afterward devoted to his race. However, his rare genius did not suffer through his accident of birth, as he left a considerable fortune, and, what is better, earned the respect and friendship of all the jewelers in this part of the country. Mr. Reason was a Thirty-third Degree Mason and his funeral was conducted by that order.

Columbus Letter.

The fact that peace has been declared is a source of satisfaction to the business men of Central Ohio, inasmuch as it marks the beginning of an era of what is thought will be the most prosperous times the country has ever enjoyed. The change for the better was becoming very perceptible when war was declared, but this had the effect of postponing matters because of the uncertainty of the future. However, as all now seems to be settled, there is a confidence among business men that has heretofore been wanting. Wholesale men and manufacturers have been keeping a close watch upon the section of the country from which they derive their trade, and they say that the Central States are now in better condition than at any time for the previous five or six years. The only danger they fear is that the retail dealers will not stock up sufficiently to meet the demands, and that rush orders for the holidays will find the jobbers unable to meet them, especially in goods that depend upon changes in style. An endeavor will be made, however, to be prepared to take care of the business as it comes.

The Pennsylvania Railroad Co. now requires all flagmen and others who have anything to do with the movement of trains, to have standard watches, which must be examined at intervals, as those of other trainmen are. No special makes are required, but the watches must be of such quality as is necessary for correct time-keeping.

James Rodgers has disposed of his store, at Bedford, to W. N. Larkworthy, and has gone to Owosso, Mich., to go into business.

G. A. Lynn's store, at Paulding, was recently badly damaged by fire. He had \$2000 insurance on his stock.

G. C. Ridgeway, of the Julius King Optical Co., called on his Columbus customers early in the month.

In a suit recently brought by the Hallwood Cash Register Co., of Columbus, against the National Cash Register Co., of Dayton, the Hallwood Co. asks damages from the Dayton concern to the amount of \$200,000, the grounds being that the National harassed their salesmen, and damaged their business in every way possible, instituting petty suits and intimidating their workmen and agents in numerous ways. They also asked for an injunction to restrain the National people from further bothering them. The Hallwood machine is made by the New Columbus Watch Co.

The Springfield Silver Plate Co., Springfield, is enlarging its buildings and plant, preparatory to starting the casket hardware department, purchased from the Fairpoint Manufacturing Co., into operation this fall. The capital stock of the company has recently been increased from \$30,000 to \$100,000. When completed, the factory will employ about two hundred people. President E. N. Lupfer and Secretary C. H. Hiser are preparing for a big rush of business this fall and winter.

On the night of July 29th, burglars entered the store of I. Isenberg and took a quantity of goods, consisting of watches, revolvers and diamonds. Two men, giving their names as Dennis Brady, of Pittsburg, and William Lee, of Bay City, Mich, have since been captured.

The Harter jewelry store, at Steubenville, recently closed on account of an explosion, has been reopened.

Albert H. Bonnet, wholesale jeweler, of Columbus, is spending his vacation with his family at Indian River, Mich.

F. B. Ross, the well-known salesman with F. F. Bonnet, has returned from a trip to Kansas, where he visited his mother, who was very ill.

The Harbor Jewelry Co., of Ashtabula, has moved to 101 Bridge Street.

O. C. Kennedy has disposed of his jewelry business at Bellefontaine.

D. Gruen & Sons, importers of watches, who have had offices in the Wesley Block, Columbus, for years, have removed their headquarters to corner of Fifth and Elm Streets, Cincinnati, where they have connected themselves with the Queen City Watch Case Co. as general distributors of their product.

E. S. Fishback has purchased A. N. Mackerly's jewelry business, at Greenville.

The police of this city are searching the pawn shops for jewelry said to have been stolen in Buffalo.

Charles E. Burt, a Cardington jeweler, was buying goods here early in the month.

Trade during the past summer has been much better in the smaller towns than in the cities. This is a good indication of the prosperity which is now predicted for the coming year.

D. L. Auld spent several days the latter part of August in New York on business.

B. F. Carter & Co. have purchased the stock of Carter & Albright at Arcanum.


Local dealers all claim their July and August business has far surpassed the same months for the past six or seven years. A very hopeful sign.

F. W. H. SCHMIDT,
100 State Street, CHICAGO, ILL.
HEADQUARTERS FOR
**Watchmakers', Jewelers',
Engravers', Opticians' Tools,
Materials and General Supplies
of all kinds.**
Alumnico, Gold Filled and Gold Frames.
SILK, WHITE METAL, FIRE GILT,
ROLLED-PLATED CHAINS.
Watch and Jewelry Repairing for the Trade.
Prompt and careful attention to mail orders.

THE
Great French

EYE WATER
The Best Remedy
Known for
**Weak or Inflamed
EYES,
Granular or Scaly
Eyelids, Etc.**

IT CURES
Once used,
recommends itself.
\$18.00 per Gross.
Ask your Jobber for it
or send \$1.50 for a sam-
ple dozen to the manu-
facturer.
F. A. UPHAM,
111 E. Seventh St.
St. Paul, Minn.


**The Best place in New England
for Prescription Work.**
**TRY OUR PRICES } AND YOU WILL
TRY OUR WORK } HAVE
NO OTHER.**
J. Ouimette, Jr.,
Manufacturing and Wholesale Optician,
SOUTHBRIDGE, MASS.

IMPORTANT!
Those intending taking a course of study in
Skiascopy and Ophthalmoscopy
are reminded that appointments must
be made in advance, as only a limited
number of open dates are available.
Terms, \$30.00. Address
L. L. FERGUSON,
32 Maiden Lane, New York.

REDUCTION IN PRICES, under license, of our **MERCANTILE FOUNTAIN PENS.**

No. 1 retails at \$1.50 each, and No. 4 at \$2.50 each. Discount to the trade.

Fitted with full size, best quality gold pens, interchangeable. Try them and be convinced that they are superior goods. Put up in tray and show case assortments.



AIKIN, LAMBERT & CO. Manufacturers of Fine Gold Pens; Holders in Pearl, Silver, Gold, Shell, Agate, Ivory, Ebony and Gold Plate; Pencil Cases, Tooth and Ear Picks, Glove Buttoners, Match Boxes, Paper Cutters and Silver Novelties.

GENERAL AGENT FOR THE PAUL E. WIRT FOUNTAIN PEN. NOW PUT UP IN SHOW CASES.

S. N. JENKINS, 103 State Street, Chicago Agent.

SALESROOM—19 MAIDEN LANE, NEW YORK.

THE LEADER

in High-Grade Watches is the

VACHERON & CONSTANTIN

GENEVA, SWITZERLAND.



THE LEADER in } Quality, Adjustment, Durability, Style.

It Fits all Sizes of American Cases.

New Grades—New Sizes—New Improvements.

Special Grades for Railroad Men.

EDMOND E. ROBERT,

SOLE AGENT,

3 Maiden Lane,
New York.

Staple Goods at Popular Prices.



Our Special Prices on Mainsprings, C. & F. Jewels, Balance Staffs, etc., we have decided to extend until further notice. Send us a trial order and be convinced of quality and low prices.

★ "STAR" Brand American Mainsprings, extra quality, crocus finished, are now put up in enameled anti-rust tin boxes. Special, 90 cents per dozen; \$9.45 per gross.

American Balance-Staffs and Cock and Foot Jewels, in settings, to fit the following movements, at 75 cents per dozen. If not satisfactory, money cheerfully refunded.

Waltham, 0, 1, 6, 16 and 18 sizes,	75 cents dozen.
Elgin, 0, 6, 16, and 18	" 75 cents "
Hampden, 6, 16 and 18	" 75 cents "
Illinois, 6, 16 and 18	" 75 cents "
Columbus, 18	" 75 cents "
Rockford, 18	" 75 cents "
Trenton, 18	" 75 cents "
N. Y. Standard, 18	" 75 cents "

★ "STAR" Brand American Roller-Jewels, one gross (12 dozen), nicely assorted in walnut cabinet, 12 bottles, for the leading makes of American watches, perfect fit. Special price, complete, \$2.25.

Swiss Hole-Jewels, per gross, \$1.25, \$1.75 and \$2.50.

Swiss Cap Jewels, 20 cents, 45 cents, 75 cents and \$1.25 per gross.

Swiss Roller-Jewels, oval or round, per gross, 25 cents.

★ "STAR" Brand American Long Case-Screws, best quality, one gross (12 dozen), nicely assorted in walnut cabinet, 12 bottles, for the leading makes. Price complete, Special, \$1.75 (dozen, 20 cents)

American Pendant Screws, a very handy screw for holding in stem, per gross, well assorted, 50 cents.

American Spectacle and Eye-Glass Screws, assorted, per gross, 75 cents.

Mascot Pivot-Drills, per dozen, 35 cts.

★ "STAR" Brand Pin-Tongs, extra stiff, best quality, put up in separate sizes, in box, per gross, 75 cents.

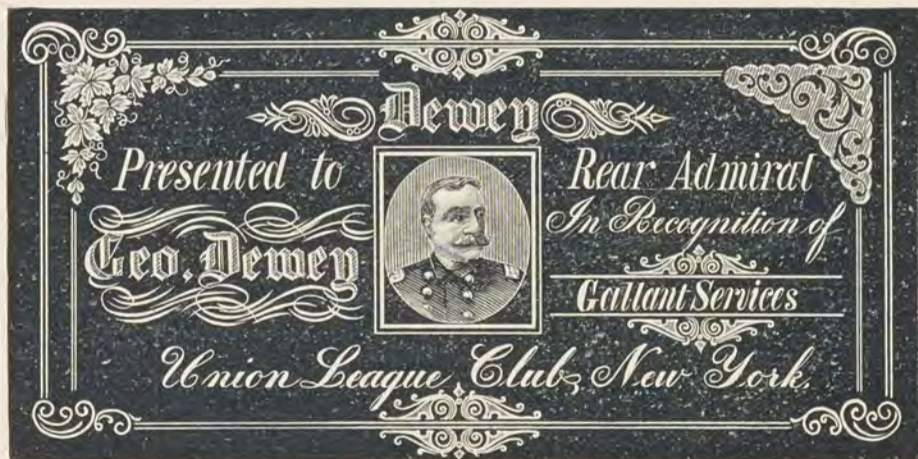
Seamless Gold Filled (12 K.) Watch Bows, 6, 16 and 18 sizes, assorted on card, per dozen, \$1.75.

Gold and Silver-Plated Hat-Pin Stems for Military Buttons, etc. Best quality, 63 cents per dozen. Medium quality, 23 cents per dozen.



All of the above prices are strictly net cash. Orders filled in rotation as received. If you wish to know more about our goods, write for our (Silent Traveler) Illustrated Catalogue and Price-list—sent free on application.

H. B. Peters & Co., 177-179 Broadway, New York



You Can Engrave Like This,

ANY ONE CAN,

with the Eaton-Engle Engraving Machine. It's a wonder, and our fully illustrated catalog (yours for the asking) tells all about it and how you can get it on easy installments.

It is worth two minutes of your time to send your name and address on a penny postal card and know all about a machine that will engrave Script, Old English and Gothic, as well as fancy letters; Monograms, Portraits, Flowers, Animals, and intricate ornamental designs. Engraves on oval, concave and flat surfaces, inside rings, etc. Nothing in the world like it.

COIN MONEY DURING THE HOLIDAYS by having one.

Write NOW (a postal card will do) and get our complete catalog.

EATON & GLOVER, 111 Nassau Street, NEW YORK.

ALL OUR
Seamless and Rolled
Gold Plated Chains

AS WELL AS OUR GOLD PLATED
AND STERLING SILVER

PADLOCKS,

GUARANTEED AS TO
QUALITY.

A. H. BLISS & CO.

FACTORY AND MAIN OFFICE,
NORTH ATTLEBORO, MASS.

NEW YORK:
W. E. SMITH, 11 MAIDEN LANE.

CHICAGO:
J. A. LUCAS, CHAMPLAIN BUILDING.

SAN FRANCISCO:
STANLEY GLIDDEN, 120 SUTTER ST.

MAKERS OF ALL
KINDS OF

CHAINS

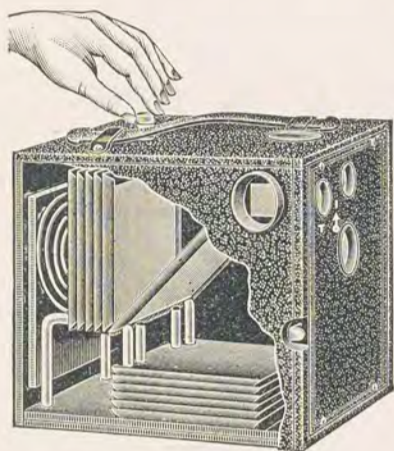
Write for our CATALOGUE of the

MAGAZINE CYCLONE CAMERA

AND 20 OTHER CAMERAS AND SUPPLIES.

A Phenomenal Seller

Takes 12 pictures at one loading.
One turn of the button changes
the plates.



To Take Pictures

2½ x 2½ inches,	\$3.50
3¼ x 4¼ inches,	6.00
4 x 5 inches,	10.00

Prices subject to our Photographic Catalogue Discount.

BENJ. ALLEN & CO.

WHOLESALE JEWELERS AND OPTICIANS,

WE GIVE CAREFUL ATTENTION TO PRESCRIPTION WORK.

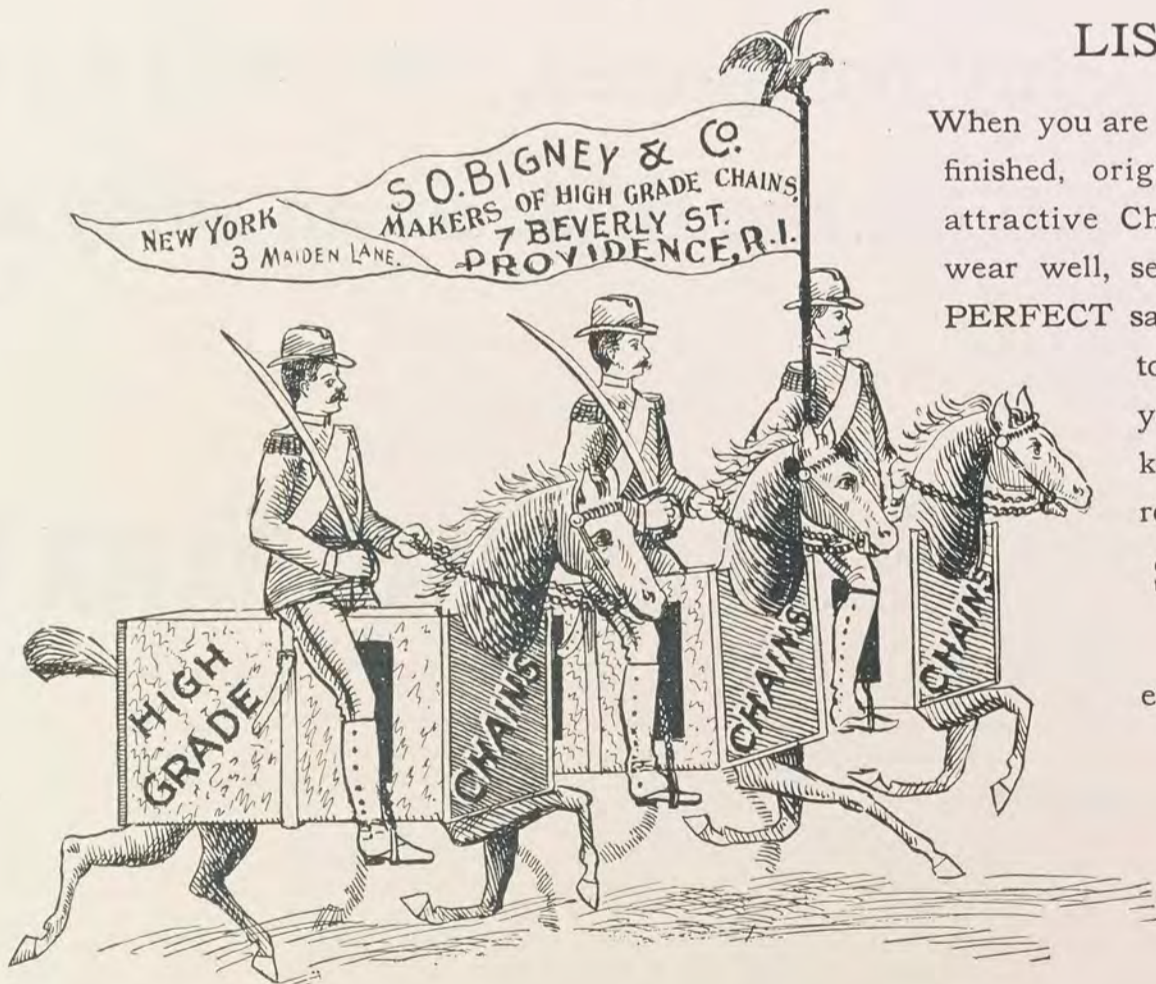
The Silversmiths' Building,

131-137 Wabash Ave., CHICAGO.

We use genuine

Opals,
Pearls
and
Diamonds
in our
Slides.

Not imitations.



LISTEN!

When you are in need of highly finished, originally designed, attractive Chains, which will wear well, sell well and give PERFECT satisfaction, whisper to your jobber that you want the above kind and he will recommend

S. O. Bigney & Co.'s

every time.

BIGNEY'S MARCH TO VICTORY.

TUNE:—"MARCHING THROUGH GEORGIA."

Our banner in the front rank waves, as we go marching on;
Our High Grade Gold Filled Chains they lead the army of the strong;
In Finish, Style and Quality they meet and conquer all,
As we go marching on to victory.

Hurrah! hurrah! for Bigney's Chains they lead;
Hurrah! hurrah! for they're the style we need;
They sell at sight and wear all right, and stand the test you know,
As we go marching on to victory.

IMPORTANT

The issue of **7** Jeweled, **12** Size Movements, announced in our advertisement on second page of cover, this number, is unavoidably postponed. We will further advise the trade at an early date.

ELGIN NATIONAL WATCH CO.

Chicago, August 26, 1898.



WESTERN BUREAU OF THE KEYSTONE,
ROOM 311, COLUMBUS MEMORIAL BUILDING.

CHICAGO, August 27, 1898.

The wholesale trade of this city has improved right along since our last issue. Traveling men are doing well, as a rule, in the country, and the number of buyers in the market has been greater than usual at this season; the mail orders have been good, as a rule. Jobbers report more opening stocks being sold than is customary in August. Usually this is not the time of year to look for any great activity in the jewelry and allied trades, but goods are moving more freely now than they have for some months past. Prospects for the future are excellent, and the trade are expecting a fall business that will be larger than for a long time.

Result of the War and Business The result of the war has been, or will be, when the treaty of peace is ratified, the acquisition of much very valuable territory, whose trade relations with Spain are now hopelessly and forever severed, and which, amounting to many millions of dollars annually, will be turned in favor of the United States. And the valuable island acquisitions in the Atlantic will be met, in a trade line, with our additional acquisitions on the Pacific side, so that our trade relations will soon extend from the Orient to the Occident, and prove of immense value to every part of our industrial situation. It may be set down, therefore, as a demonstrable fact, that a speedy return of financial and industrial prosperity, when it does come, as come it assuredly must, will affect all interests and come to us alike and simultaneously. That the United States will make immense sums of money out of the war with Spain goes without saying. It will also assure the speedy building of a canal uniting together practically the two oceans, from which vast benefits to our commerce must result. In the benefits and blessings that are to follow, all lines of business must participate, for all interests are so closely allied in an industrial sense that whatever benefits one must benefit all. We are entering upon a new period in our history, and one that is more pregnant with grand results than any preceding one. The future is most assuredly filled with the brightest promises.

The outlook for September seems exceptional in this market. With the low fare and other advantages offered by the National Association of Merchants and Travelers, whose September meeting convenes in this city on the 11th inst. (dates for buying tickets to this meeting are September 10th to 16th; good returning September 14th to 24th), the fine crops and easy money conditions in the West, together with the fine lines of goods and extra inducements offered by our wholesale houses, the outlook for an unusually large September business seems more than bright to our Chicago trade. Make a note of the dates for buying tickets and returning home, and make your arrangements accordingly. Membership cards to the above association and further information can be had by addressing any one of the following sustaining members: Otto Young & Co.; Benj. Allen & Co.; G. W. Marquardt & Sons; B. F. Norris, Alister & Co., and The Towle Manufacturing Co.

Opening of the Fall Trade The fall trade in general has opened auspiciously. There seems to be no disputing the fact that the number of buyers who have been to market the past few weeks was greater than usual; that they found their way to market earlier than is usually their wont, and that they bought more liberally than heretofore. This applies more especially to the more staple lines, like dry goods, clothing, boots and shoes, than to jewelry and allied trades; however, these same conditions will prevail with these trades later on. The West is surely and certainly getting back to old-time prosperity very fast. There can be no doubt about that. Take the railroads as a fair barometer. Take the Chicago and Northwestern, for instance, which traverses the region west and north of Chicago, with lines in Wisconsin, Minnesota, Illinois, Iowa, South Dakota and Nebraska. Its thirty-first annual report, which has just been made, shows that its gross earnings for the fiscal year ending May 31st were the largest in the history of the company. This result has been accomplished in spite of the decrease in the rates per passenger per mile, and a decrease in the average receipts per ton per mile for freight. There is evidence of the same sort to be found elsewhere. In some of his readable letters, W. E. Curtis, of the *Chicago Record*, says: "It was only two years ago that the Government was so hard up that it was compelled to make a very hard bargain with the banks who controlled the gold supply and could influence the rate of exchange. Then the Government was compelled to beg for gold and pay whatever the brokers demanded, not without considerable scandal. To-day the vaults of the treasury are overflowing, and for the first time since before the war of the rebellion the cashiers at the sub-treasury in New York and at the treasury in Washington are paying gold coin over the counter in preference to Government notes or coin certificates. At the same time a golden stream is flowing into the treasury from the custom houses and from the subscribers to the new loan, while in the vaults of the New York clearing house there is now nearly \$170,000,000 of gold coin, which has been placed there for storage, like wheat in an elevator." Some of the Western banks have more money than they know what to do with, and the success of the popular loan has demonstrated that there is a vast amount of money which is seeking opportunity for investment. Now that the war with Spain is over, there ought not to be anything to disturb the even tenor of affairs for some time to come, and nothing to make this surplus capital afraid. It is already evident that trade in the West is to be very good. It is likely to be more than a repetition of what was enjoyed last year.

So far as the South is concerned, the coming year bids fair to witness such a revival of industrial and commercial activity there as has not been experienced for many years. The cotton crop promises largely and will bring to the Southern States increased wealth, much of which will be expended in building up the manufacturing industries of that section.

The annual estimate of the *Minneapolis Journal*, in Minnesota and the two Dakotas, has been published. These reports during the past years have proven unusually accurate. The estimates show an increase in the yield over last year of 60,000,000 bushels, largely on account of increased acreage. The crop has been damaged in places, but the quality, on the whole, will be better than last year.

The Omaha Exposition people are making great efforts to make a success of Chicago Day, on Saturday, October 1st. A communication has been received by our business men from the Exposition management asking them to assist in making the occasion a memorable one. Now that the railroads have made a rate of \$10 for the round-trip from Chicago for the above date, we predict that the great World's Fair City will turn out nobly.

The past three weeks have witnessed the dull season of the year in a retail way and the commencement of active house trade by the wholesalers. General business conditions as reported still show a gain over a year ago. Financial markets report increased activity. In New York, bank reserves show a considerable decrease, which is attributed to the payments made on the new loan and is thought to be only temporary. Bankers are free buyers of commercial paper and the supply is also increasing. Merchants are preparing to handle a large autumn trade and are borrowing more freely, but this is made good so far as New York is concerned by lack of demand from the West. The volume of re-discount business done by Western banks is about one-half what it was a year ago. The dry goods interests are the most prominent borrowers, but nearly all wholesale lines are represented in the market.

Shipments of currency are being received from nearly all the near-by money markets, and the significant feature of the situation is the large supply of money seeking use. The Secretary of the Treasury has announced in regard to the new loan that no allotment will be made to purchasers of over \$4,500. In Chicago a more active demand for discounts is noted, but no change in rates.

Receipts of early wheat continue light at interior points and some of the railroads report that the farmers are preparing to hold their grain on an extensive scale, while others seem to expect early shipment. It is stated that the financial conditions of the Western farming community are such that they do not need to sell, and some well posted grain dealers anticipate that the movement will be light at the beginning of the season. Reports have been fairly favorable as to the crop. The same conditions rule in the corn market. Cash demand for both wheat and corn continues good with an export business in good amount, though not up to recent shipments.

The iron and steel markets have been strengthened by the close of the war, as railroads have come forward with large contracts, being forced to this by the prospective heavy tonnage this fall and winter. In some lines of material a good advance has been secured, and the market is very firm. Manufacturers of steel rails report their capacity absorbed for the remainder of the year.

Reports of improving weather in the South, followed by selling orders, caused a slight decline in the cotton market. Prices are lower, but no material decline is anticipated, but predictions of an early improvement in conditions are not believed by the trade. Sales of wool are still small and conditions are unchanged.

The Chicago jobbing markets have been visited by a large number of merchants who have provided for their future wants in a conservative fashion and speak very favorably of the outlook for fall business. The present trade of the retailer, of course, is limited, as it always is at this season of the year, but sales for August are better than usual.

Personal Mention.

Paul Morrison, of Gordon & Morrison, is at his desk again, after his summer outing spent at Mackinaw.

Chris. Morgan, the veteran and most successful flat-ware salesman, who handles the Rogers & Bro. A1 line, was here recently.

Richard Seidel, Jr., son of Jeweler Richard Seidel, of Milwaukee, has recently accepted a position in the Chicago office of the Middletown Plate Co., under Manager Livermore, and will hereafter make this city his home.

L. W. Melchor, traveler, and F. J. Wirtz, city salesman, for F. A. Hardy & Co., returned the early part of the month from a four weeks' outing spent at Fine Lake, Mich., where they enjoyed some rare sport with rod and reel and at boating.

Wm. M. Alister, of B. F. Norris, Alister & Co., and family, are summering down on the Maine coast. They do not expect to return to Chicago until late in September.

H. C. Van Pelt, of F. H. Noble & Co., accompanied by his family, has just returned from a pleasant vacation spent with friends in Northern Iowa.

H. M. Lane, Chicago manager for Reed & Barton, is at his post again after three weeks' outing spent at Mackinaw, the popular Northern resort.

James P. Stewart, cashier at C. H. Knights & Co., has just returned from a most enjoyable outing spent at Paw Paw, Mich.

George M. Stannard, of the Geneva Optical Co., enjoyed his vacation at Devil's Lake, Wis., where he has been for the past three weeks.

Chas. T. Wittstein, of Theo. Schrader & Co., is again at his post after two weeks' recuperating in the country.

A. A. Schaeppi, formerly with Henry Cowan, material jobber, Boston, has recently entered the employ of F. W. H. Schmidt, at 100 State Street.

J. M. Johnston, head of the wholesale optical firm of J. M. & A. C. Johnston, has recently returned from a two weeks' vacation delightfully spent at Luddington, Mich. He was accompanied by Mrs. Johnston.

Henry Bode, an old-timer among the Chicago trade, has lately embarked in the jewelry business at Downer's Grove.

Mr. and Mrs. Frank M. Avery are being congratulated on the birth of a son, their first born. The event occurred August 4th, and there has been much rejoicing in the Avery household ever since; especially is Grandpa Avery, the venerable president of the Elgin Watch Co., pleased to have a grandson.

(Continued on page 716 o.)



It's Money in Your Pocket

To buy your watches from us. You can easily figure it out yourself how much you'll be in on those quoted on this page. These are samples of what we can do.

Assorted up-to-date designs.

Made and guaranteed by well-known manufacturers.

PRICES ARE SUBJECT TO KEYSTONE AND CASH DISCOUNTS.



Assorted Engravings.
No. 1065. O size Hunting, 14 K. Gold Filled Case. Guaranteed 20 years. **\$8.84**
No. 1066. 6 size Hunting, 14 K. Gold Filled Case. Guaranteed 20 years. **\$9.48**



Assorted Engravings.
No. 1067. O size Hunting, 14 K. Gold Filled Case. Guaranteed 25 years. **\$11.54**
No. 1068. 6 size Hunting, 14 K. Gold Filled Case. Guaranteed 25 years. **\$11.70**



Diamond-Set.
No. 1069. O size Hunting, 14 K. Gold Filled Case. Guaranteed 25 years. **\$11.18**



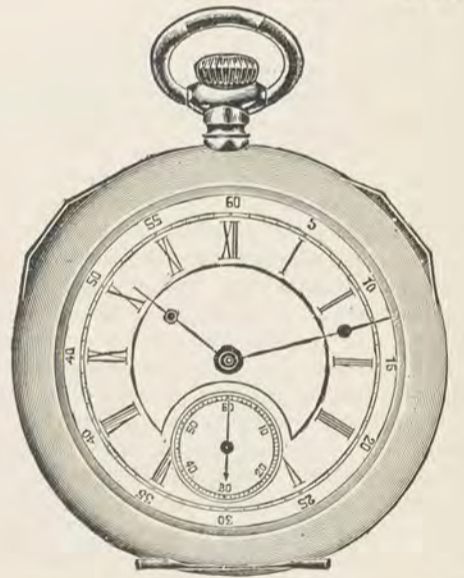
Raised Gold Ornamented.
No. 1070. O size Hunting, 14 K. Gold Filled Case. Guaranteed 20 years. **\$13.30**
Raised Gold Ornamented.
No. 1071. 6 size Hunting, 14 K. Gold Filled Case. Guaranteed 20 years. **\$14.90**



Assorted Engravings.
No. 1072. 18 size Hunting, 14 K. Gold Filled Case. Guaranteed 20 years. **\$11.92**
No. 1073. 16 size Hunting, 14 K. Gold Filled Case. Guaranteed 20 years. Waltham or Elgin model. **\$11.92**



Assorted Engravings.
No. 1074. 18 size Hunting, 14 K. Gold Filled Case. Guaranteed 25 years. **\$16.20**
No. 1075. 16 size Hunting, 14 K. Gold Filled Case. Guaranteed 25 years. Waltham or Elgin model. **\$16.20**



18 Size Open-Face.
 Genuine Nickel Hinge Case, Fitted with the following movements:
No. 1076. Peerless (Trenon make) **\$4.26**
No. 1077. Atlas or Sun Dial, **4.47**
No. 1078. 7 Jewel Elgin or Waltham, **6.69**

PRICES ARE SUBJECT TO KEYSTONE AND CASH DISCOUNTS.

We have just published a complete Catalogue of our Watch Bargains, and if you have not received one, Send for it. It will pay you.

Order an assortment. If not as represented, you don't have to keep them. Write for our confidential trade prices on Watch Movements. Our stock is large, and we are ready for the Fall trade.

Sproehnle & Co.

Established 1880.

Chicago.

Watch Jobbers.

Stewart Building,

Cor. State & Washington Sts.

Our Specialty— COLORED STONES

We are now displaying large and exquisite lots of Rubies, Sapphires, Emeralds, Opals and other semi-precious stones, recently purchased by our MR. WILL F. JUERGENS in the leading European markets. These lots are made up of fine stones all carefully chosen. We are headquarters in the West on these goods.

PEARLS

We have a choice selection of rarely beautiful and perfect specimens in these now popular goods, and show a large variety of best quality.

DIAMONDS

Our stock for the Fall is more complete than ever before, and comprises a choice assortment of all qualities and sizes of our own importation. We feel assured that it will pay you to give us a trial.

Juergens & Andersen Company,

92-98 State Street,
Chicago.
Third Floor of the Stewart Building.

1000

Illustrations of
Up-to-Date
Goods

OUR FALL BULLETIN

Mailed
September 10th.

ST. LOUIS CLOCK AND SILVERWARE CO.

If you do business,

IT WILL INTEREST YOU.

We Have Ideas!

We make business.



Admiral George Dewey,
in Ivory Antique,
and all the Great Ones. Endless Variety.



Cake Plate—Cobalt Blue.
Endless Variety.



Chocolate Sets—Endless Variety.
Tete-a-Tete, Tea Sets and Dessert Sets.
Our Fall Bulletin.



Claret Jug—Cut Glass.
Our Fall Bulletin. Endless Variety.

BARGAINS.

- Clocks,
- Silverware,
- Glass,
- China,
- Music Boxes,
- Graphophones,
- Etc., Etc.

WHOLESALE
ONLY.



Old Ivory Monks,
all sizes.
Our Fall Bulletin.
Endless Variety.

REMEMBER
THE
NAME
will be
our
MUTUAL
GAIN

ST. LOUIS CLOCK AND SILVERWARE CO.,

NO GOODS AT RETAIL.

419 North Sixth Street, ST. LOUIS, MO.



C. H. KNIGHTS & CO.
DIAMOND MERCHANTS AND
WHOLESALE JEWELERS
COLUMBUS MEMORIAL BUILDING, CHICAGO

Chicago News.

(Continued from page 716 k.)

A. L. Sercomb, Chicago manager for the Meriden Britannia Co., returned the early part of the month from a fishing excursion into the wilds of Wisconsin. He was accompanied by his family.

Ed. J. Walthers, for the past eight years stock clerk with C. H. Knights & Co., has been given the Northwestern territory for this firm and left last week on his initial trip. The trade will find Mr. Walthers a most agreeable and trustworthy young gentleman, who has a promising future.

L. Gutmann, the well-known Cincinnati jobber, was in Chicago August 12th, en route home from Waukesha, Wis., where he spent his vacation. Mr. Gutmann called at KEYSTONE headquarters and said that he never felt better in his life, and that Waukesha as a resort was just to his liking. Mr. Gutmann is quite optimistic, and believes that the coming fall season will be a prosperous one for Western and Southern dealers.

Percy Clap, son of Harvey Clap, of the well-known firm of Daggett & Clap, Attleboro, Mass., was in Chicago for the first ten days of the month, a guest at the home of H. E. Cobb, the Western representative of the above firm. Young Clap is only just through with school, and is making a tour of the West for pleasure and sightseeing. He was being shown the sights of the Western metropolis by Burt Cobb, son of the Western representative of the above firm.

W. C. X. Hull, the faithful and hard-working assistant manager at the Chicago office of the Towle Manufacturing Company, is back at his desk again looking fine after a several weeks' vacation spent in company with Mrs. Hull at Attica, Ind.

S. A. Winkler, of the Stein & Ellbogen Co., returned the middle of the month from an enjoyable outing spent among the Northern lake resorts.

Walter Ghislin, of the Gorham Manufacturing Co., and Harry Ghislin, of Hyman, Berg & Co., returned the early part of the month from their summer outing which was delightfully spent up among the Wisconsin resorts.

Philip Mammoser, accountant for the Stein & Ellbogen Co., enjoyed a pleasant outing up in Wisconsin last week.

News has been received by the trade here of the sudden death of Mrs. G. E. Newcombe, wife of Jeweler Newcombe, of Big Rapids, Mich. Mrs. Newcombe was well known in the jewelry trade and was most highly esteemed by all who enjoyed her acquaintance. Mr. Newcombe will have the sympathy of the entire trade in his sad and sudden bereavement.

The latest benefaction of Otto Young, one of the most widely-known and wealthiest members of the jewelry trade in Chicago, is a hospital for consumptives to be attached to the Chicago Home for Incurables. Mr. Young's son died two years ago of consumption, and ever since he has taken great interest in this class of unfortunates. The new hospital is to be a memorial to his dead boy and will cost about \$60,000.

Almer Coe, the Central Music Hall optician, has returned from his annual vacation.

Thos. J. Juzek, president of the Elgin Horological School, has been making the rounds of our wholesale houses on a purchasing tour the early part of this week.

Thos. Y. Midlen, Chicago manager for the Gorham Manufacturing Co., is at his desk again after a two weeks' absence in the East.

W. J. Miller, Chicago manager for the Seth Thomas Clock Co. is enjoying a rest from business cares in a visit to the Eastern seashore resorts.

Adolph Schwobe, the well-known importer of Swiss watches, New York, has opened a Chicago office on the eighth floor of the Columbus Memorial building, with J. W. Tice in charge. Mr. Tice is well and favorably known here as the former manager of the Chicago office of the New York Standard Watch Co.

Gossip Among the Trade.

The Geneva Optical Co. have fitted up one of the front corners of their new quarters as a sample room. It is somewhat elegant in its appointments and right up-to-date in every particular.

Marshall Field is credited with securing a controlling interest in Central Music Hall, and also with the purpose of extending his retail store north to Randolph Street, which would give it the entire frontage on the east side of State Street between Washington and Randolph. The improvements now begun will cost \$150,000. They include the addition of three stories, the erection of a glass dome over the central light shaft, and other interior changes.

For unavoidable reasons, which have arisen since the advertisement of the Elgin Watch Company which appears on the second cover page of this issue of THE KEYSTONE was printed, the company will not be able to deliver to the trade their new 12 size, nickel, seven jeweled movement, on September 1st, nor are they able to state just when they will be able to deliver these movements. However, just as soon as the Elgin Company can, they will announce the date for delivery of these goods.

A unique and interesting booklet with "Our Traveler" as the title will be sent out to the trade September 1st by Sproehne & Co., the watch jobbers. This is its first issue, and contains twenty-four pages of interesting trade quotations. It will be cheerfully sent you upon request.

The premises of C. H. Knights & Co. have undergone a complete renovation during the between-season period, and show an improved and brightened up appearance. They are enjoying an excellent business with their travelers on the road, and their home trade has been excellent as well. Mr. Knights is feeling greatly encouraged over the way their fall business is opening up.

Goldsmith Bros. are now running their new thirty-ton smelter in full blast at their new smelting works.

The first day of October will be "Chicago Day" at the Omaha Exposition.

The annual base ball match for the "Jewelry" championship, was played Saturday, August 20th, at Washington Park, between the employees of B. F. Norris, Alister & Co. and Hyman, Berg & Co.; the former winning by a score of eleven to five. The game was interesting from start to finish and gave the spectators rare sport. The Norris-Alister boys played a good, stiff game throughout; so did the Hyman-Berg laddies, but the lead their opponents gained when they allowed them to score five runs in the first inning was too much of a lead for them to overcome. The features of the game were Darlington's pitching, Geo. Gubbins' back-stop work and Ginsberg's first base playing for the Norris-Alister nine being especially noticeable. Second-baseman Dave Tara, of the Hyman-Berg nine made a triple play unassisted; Albright did well in the pitcher's box for this nine. The comical features were Harry Ighlinger chasing Ed. Albright down the base-line from third base and putting him out, and the all-round sweating of Geo. Gubbins. A loving cup was presented to the winners by Reed & Barton. Many trade celebrities were present and "rooted" themselves hoarse over the game.

Chambers, Inskip & Co. are now nicely located in their new quarters which are a fine improvement over their old salesroom. These are on the second floor of the same building they have occupied heretofore. The advantages of the new place are many. Among them is the fact that their salesroom, order department, stock department and factory are on the same floor and all within view. Their arrangement is a great convenience and saving of time in filling orders. This firm are progressive and have worked up a fine business which has shown a steady increase each year for the past seven years.

The New England Watch Company has absorbed the Chicago branch of the New Haven Clock Company. Manager Lester, of the former Company, is in charge, and G. A. Jewett, former manager of the New Haven Company, will devote his entire time in the future to the chain line of Hamilton & Hamilton, Jr., as their Western representative with headquarters in Chicago. Mr. Jewett's office is now on the seventh floor of the Stewart Building.

Out-of-Town Visitors.

Jeweler S. C. J. Peterson, of Morris, Ill., was a welcome trade visitor here recently.

S. H. Clay, of Cambridge, Ill., was in Chicago recently on a buying trip.

F. C. Hyde, watchmaker and optician, with Mayer & Kamps, Appleton, Wis., left for his home the early part of the month, after a two weeks' stay in Chicago in attendance at the McCormick Optical College.

C. G. Holcomb, optician, Seattle, Wash., spent a week in Chicago the early part of the month, combining business with pleasure.

J. M. Crawford, of Crawford & Crawford, Temple, Tex., was a student at the Chicago Ophthalmic College last month. He was quite a liberal buyer among our jobbers before returning home.

Max Goodman, optician, with Jeweler E. Hertzberger, San Antonio, Tex., was in the city last month pursuing a course of optics at one of our optical schools. Mr. Goodman found Chicago such a fine summer resort that he made his stay somewhat longer than he first intended.

G. Spitz, of Santa Fe, N. M., was in the city a few days last week making a selection of the latest fall novelties.

R. C. Augustine and wife, of Decatur, Ill., were in town recently en route home from a pleasant summer vacation spent at Mackinaw.

Jess Hansen, watchmaker for H. J. Smith, Racine, Wis., was in town for a day recently. He was accompanied by Mrs. Hansen.

Herman Proehl, of Proehl & Wiegand, Racine, Wis., was a trade visitor here recently.

A. Hooper, optician, Atchison, Kans., was a recent caller on the trade here.

Chas. H. Piper, jeweler and optician, Pueblo, Colo., was in town the early part of the month.

H. C. & E. R. Moffett, opticians, Clinton, Iowa, were trade callers here recently.

Albert Wells, son of President Wells, of the American Optical Company, Southbridge, Mass., visited friends here early in the month.

Robert Ernst, of Vicksburg, Miss., was in Chicago last week on a purchasing trip.

Frank Curtis, of Frank Curtis & Co., Decatur, Ill., was a welcome trade visitor here recently.

H. L. Chase, of H. L. Chase & Co., Cedar Rapids, Iowa, was a trade visitor here recently.

N. O. Bourque, of Abbeville, La., spent ten days in Chicago the early part of the month taking in the sights. He was a pleasant caller at KEYSTONE headquarters during his stay in town.

Dr. Frederick H. Brand, optician, Mokena, Ill., was met by THE KEYSTONE representative in one of our wholesale optical houses last week. The writer was glad to meet Dr. Brand and renew a former acquaintance, having known the doctor several years ago while he was in charge of the optical department of the Mermod & Jaccard Company, St. Louis.

R. B. Wagner, of Wheaton, Minn., was in the city a few days last week making fall purchases.

W. A. Schaddell, of Crown Point, Ind., was in the city recently on a purchasing trip.

J. Segerstrom, of Rhinelander, Wis., was a buyer in this market last week.

E. L. Marsh, of Fort Dodge, Iowa, was in Chicago recently selecting the latest fall novelties.

E. A. Marsh, of Grinnell, Iowa, was in Chicago for a few days the middle of the month placing an order for new fixtures. Mr. Marsh contemplates extensive improvements in his store, his order being a liberal one, and was given to the Union Show Case Co.

Walter Wyatt, the well-known Peoria optician, was in Chicago the early part of the month on his way to the Northern resorts, where he was going for a month's vacation.

G. Bliberg, of Austin, Minn., was met in one of our wholesale stores last week, where he was buying an opening stock for his new store which he is just opening at the above point. He remarked that the farmers of his State were harvesting the finest crop of their history, and as a consequence everybody was expecting a good trade this fall.

Mr. Goldschmidt, manager for Mrs. T. Kircher, Davenport, Iowa, was in town the early part of this week scanning the market for the latest fall novelties.

Jacob and Arthur Beck, opticians, New Orleans, arrived in the city the early part of the week. They expect to open up as the Crescent City Optical Co.

Dr. Floyd B. Tiffany, the widely-known optician of Kansas City, Mo., and author of "Anomalies of Refraction and of the Muscles of the Eye," and other optical works, was met in one of our wholesale houses this week. Dr. Tiffany is a pleasant gentleman, an enthusiast in his profession, and an up-to-date man in optics. He was on his way to Michigan resorts, where he will spend his vacation.

T. J. Smith, optician, Galena, Ill., was a trade visitor here recently.

T. L. Combs, of T. L. Combs & Co., Omaha, Nebr., is in the city this week on a business trip. He tells us that the Omaha Exposition is turning out to be a fine success, and that the crowds have already begun to come the way Omaha likes to see them come. That the paid admissions at the Fair last week were over 100,000, and that the stockholders are beginning to believe that they will make good money on their investment. Mr. Combs also said that, generally speaking, Omaha was prosperous, and that everybody was looking for a good business this fall.

Mrs. Lane, optician, of Huntington, Ind., is in the city pursuing a course of optics at the Northern Illinois College of Ophthalmology and Otology.

I. B. Rouse, of Toronto, Canada, was among the large number of optical students here last month. Mr. Rouse returned to his home the early part of the month, where he intends opening up a retail optical establishment.

(Continued on page 716 s.)

THE WAR IS OVER!

Business will soon be booming. Investigate the merits of the reliable TRENTON Watch Movements and Complete Watches.

Owing to high merit, combined with moderate price, they are continually increasing in popularity.



12 Size Hunting.
Gold Filled or Silver.

12 Size Open-Face.
Gold Filled or Coin Silver.

16 Size Open-Face.

We make other movements also—you should see a sample line.

Write for Revised Price-List—
it will interest you.

Ask your Jobber for TRENTONS.

TRENTON WATCH CO.

TRENTON, N. J.

DOUBLE YOUR SALES



This Camera will do it.

GIVE IT AWAY!

The Camera, with complete developing and printing outfit, will cost you

\$25.00 Per Hundred.

EXCLUSIVE TERRITORY GIVEN.
YOUR COMPETITOR WILL GET IT IF YOU DON'T.

YALE CAMERA CO.

38 Randolph St., Chicago, Ill.

WELL, WE LICKED 'EM!

Now it's over, it's time to let the excitement subside and settle down to business. We can supply you with anything you need in regular stock, and with the Novelties as fast as they come out. Have you seen the New **STEREO** Field-Glass? Smaller than an ordinary opera-glass, with a field several times the diameter of the old-style field-glass. Write for description.



OUR
PRESCRIPTION DEPARTMENT

is still ahead. No one can beat us for prices, or equal us for fine, careful work and promptness. Send us a trial order.

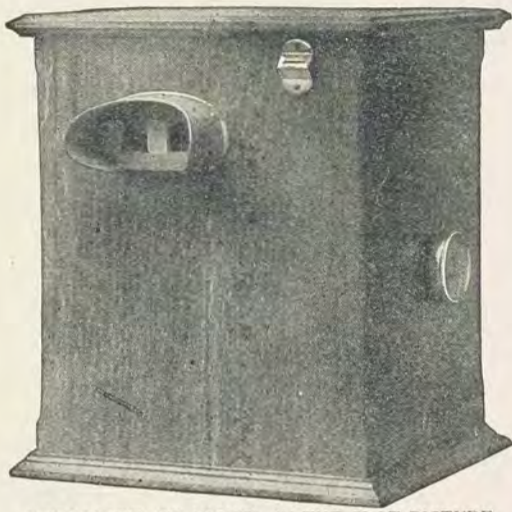
D. V. BROWN,

WHOLESALE IMPORTING MANUFACTURING } OPTICIAN { 738 740 742 SANSOM ST.,

Everything Optical.

PHILADELPHIA.

UNCLE SAM will assist in your window display and entertain your customers by singing "When Johnny Comes Marching Home Again," "Yankee Doodle," or any piece you wish, by placing your orders with us now, or would you prefer **The Policeman, The Sailor, or all three?** "The more the merrier."



NETOSCOPE, OR NICKEL-IN-THE-SLOT PICTURE MACHINE.

- | | | |
|-----------|-------------------------------------|---------|
| No. 4023. | As per cut, | \$20.00 |
| " 4024. | With ornamental top, | 25.00 |
| " 4025. | Wood, iron mounted, stand for same, | 5.00 |
- SIZES.
- | | |
|-----------|-------------------|
| No. 4023. | 12½ x 17½ inches. |
| " 4024. | 12½ x 25¼ " |
| " 4025. | 46 inches high. |

The prices quoted for the Netoscopes include 12 Views, a Lamp and all other necessities. When ordering, state if kerosene, gas, or electric light is to be used.

As a nickel-in-the-slot machine, their average earnings have been 50 cents per day, a fabulous return for the amount invested. Do not order these machines unless you are willing to take the risk, if risk it can be called, as goods of this nature are sold on positive orders only, and are not returnable under any circumstances.

Discounts on Application.

How is your stock of Talking Machines? We are closing out Columbia model now on hand at \$20.00 each.

Also, Nickel-in-the-slot Graphophones at \$20.00, \$25.00 and \$35.00. Less the regular Graphophone Discounts.

Discounts to the Trade.



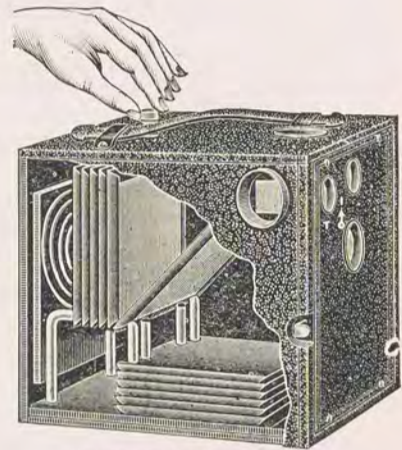
The man who fired the first gun just returned from the war. Come in and hear him talk.

PAPIER MACHE FIGURES, with moveable eyes, for Window Display, with talking machine attached—all concealed. Heights, 32 to 40 inches.

- | | | |
|-----------|------------|---------|
| No. 4026. | Sailor, | \$16.00 |
| " 4027. | Policeman, | 16.00 |
| " 4028. | Uncle Sam, | 16.00 |

The Papier Mache Figures only, each \$6.00

Write for our Camera Catalogue.



THE MAGAZINE CYCLONES

are the Cameras of to-day, and produce pictures of artistic shapes, 2½ x 2½, 3¼ x 4¼ and 4 x 5.

They are reasonable in price and do not require extra attachments.

They are the most popular and lead in the number of sales.

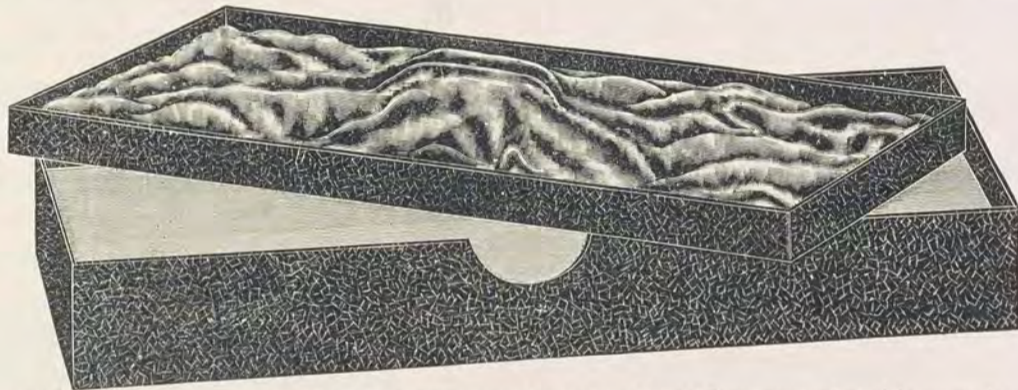
They have 12 dark metal plate-holders, which do not spoil the plates by halation or rust.

They have good lenses which cut clear to the edges.

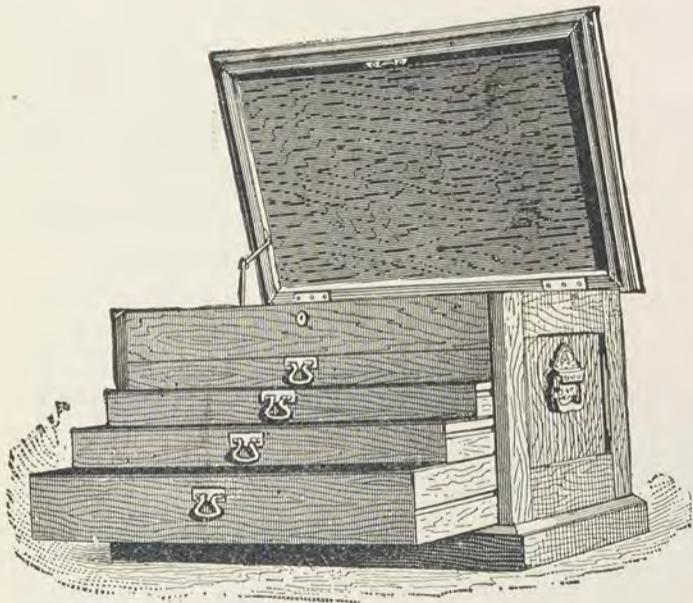
They are simple to manipulate, and will take pictures in rapid succession, and all without the aid, expense or annoyance of the rubber changing sleeve.

Twelve cyclists are coming, single file, down yonder hill, you wish a separate picture of each wheelman, the Magazine Cyclone comes to your rescue and finishes the job with neatness and dispatch.

For sizes, prices and discounts, see our Camera Catalogue.



PAPER BOXES in great profusion form an important part of stock in our Material Department, and we advise you to place your fall order for these goods at once, as the demand will be simply enormous, and late orders may consequently suffer. Our stock is large and our prices low. See pages 281 to 291 of our Tool and Material Catalogue.



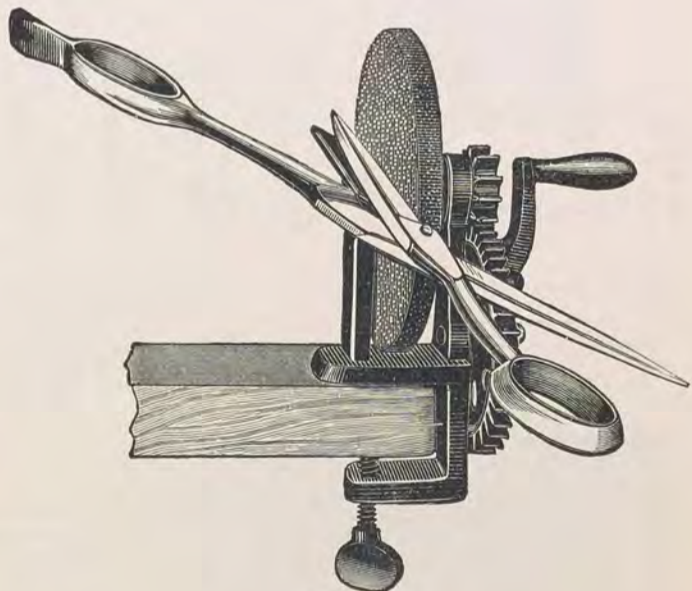
No. 4029. **OAK TOOL CHEST, \$7.00**

On Tool and Material orders we give prompt and efficient service.



No. 4030. **ORIENTAL FLUXINE, 25 CTS.**

This is a great favorite in the workshop and supersedes borax.



No. 4031. **EMERY GRINDER, 50 cts.**

The American Model Berlin Hard Lathe, 14 chuck combination, \$22.25, less 6 per cent. for cash, or \$20.92 net.

OTTO YOUNG & CO.

WHOLESALE JEWELERS,

149, 151 & 153 State Street, Chicago.

716r

We've Captured

the most interesting lines of **NEW THINGS** to be seen anywhere this Fall, and can, without question, show you an opportunity for profit in our various departments.

Diamonds *Loose and Mounted*
Watch Cases and Movements
Jewelry *Gold and Rolled-Plate*
Silverware
Sterling
Novelties

Stein & Ellbogen Co.

Diamond Importers and Cutters,
and Wholesale Jewelers,

404 Columbus Building, Chicago, Ill.

Visiting trade are invited to inspect our stock.
Mail Orders given prompt and efficient attention.

THE CRYSTALINE

THE NEW STONE

The finest imitation of the emerald. It requires an expert to distinguish them apart. Set in the newest style settings. Large variety of designs to choose from. We illustrate only a few that will represent the line.



No. 1863. \$4.50 each



No. 3863. \$4.50 each



No. 2073. \$2.75 each



No. 3573. \$10.00 each
Genuine Diamonds

We are the largest popular-price dealers in RINGS in New York City, 1200 different patterns to select from

L. W. RUBENSTEIN,
54 Maiden Lane, NEW YORK

QUICK SELLERS.

All made of Sterling (heavy) Silver, and enameled in correct colors.



No. 8317.
\$12.00 per dozen.



No. 1521.
\$2.25 per dozen.



No. 1536.
\$2.00 per dozen.

ANGLO-AMERICAN FLAGS.

MANUFACTURER OF ARMY CORPS BADGES.

CHAS. M. ROBBINS, Manufacturing Jeweler and
Maker of Everything in Flag Pins,
ATTLEBORO, MASS.

TRADE THE ORIGINAL MARK

Ladies Beauty Pin

WAIST SET.

Gold Plate—One Piece Seamless Wire.

Warranted by the Manufacturer

A NEW NOVELTY!

Our Mounted Original Ladies' Beauty Pin

Set with Turquoise, Rubies or Emeralds

is proving a big seller and growing in popularity daily. Order it.

The Original Ladies' Beauty Pin

is recognized by all jewelers as being far superior in quality, style and finish to the ones offered by other houses. It has been recognized as a necessity by the ladies, and has come to stay.

They come put up 2, 6 or 12 pins on a card, or 6 or 12 dozen on a handsome white satin standing pad.

The Plain Gold Front Flat-Wire Pins is our own idea exclusive. We are the Originators and the Exclusive Handlers.

Also in Sterling Silver and 10 K. Solid Gold.

PRICES.

The Original Ladies' Beauty Pin, gold-plate, round wire,	\$3.75 per gross.
“ “ “ “ “ front flat	4.50 “ “
“ “ “ “ “ plate mounted	9.00 “ “
“ “ “ “ “ black, dull finish	4.50 “ “



THE BAYADERE SILK STRIPED RIBBON SASH BELT.

The very latest popular fad. We have the ribbons in all manners of colors and stripes, also clasps in an unending variety from the most beautiful imported effects to the plainer styles of domestic makes. Every jeweler should show a line of these sashes, as they sell. They retail at 50 cents each, up.

LADIES' FANCY GARTERS.

Our line of these goods, now complete, contains many new and popular designs at prices which appeal to the public. You can't afford to miss them. You can't spend an hour more profitably when in our market than in our store.

J. FLOERSHEIM, KUNSTADTER & Co.

Manufacturers and Importers of *Novelties in Jewelry, Girdles, Belts, Etc.,*

S. W. Cor. Jackson & Market Streets, Chicago, Ill.

ESTABLISHED 1872.

Chicago News.

(Continued from page 7160.)

H. F. Lushbaugh, of Mt. Pulaski, Ill., was a welcome trade visitor here last week. Mr. Lushbaugh is one of the pioneer jewelers of Illinois, and has been a buyer in the Chicago market for over twenty-five years, and still thinks there is no better purchasing point than the Western metropolis.

Frank R. Pancoast, of Hastings, Mich., was in the city last week making purchases from our wholesalers.

M. Adams, of West Plains, Mo., was seen in one of our wholesale offices recently selecting the latest fall novelties for the home store.

Frank Fee, of Hartley, Iowa, was in Chicago buying goods recently.

Jeweler R. D. Kirmse, of Dubuque, Iowa, was met in one of our wholesale stores last week, where he was making liberal purchases. Mr. Kirmse was robbed August 9th of two trays of rings and thirteen gold and filled watches, his loss footing up to over \$600. The job was done by a sneak thief, who called at the noon hour while Mr. Kirmse was at dinner and his wife was looking after the store, but her attention was taken up by an accomplice at the time.

F. C. Cook, of Janesville, Wis., a well-known jeweler in this market, was a buyer here recently.

Gus. Rose, watchmaker for Jeweler James Logan, Cleveland, Ohio, spent a week here recently taking in the sights and scenes of the Western metropolis.

Dr. L. D. Brose, optician, Evansville, Ind., was in the city the early part of the week calling on the trade.

O. Rose, of Crown Point, Ind., was a recent caller at KEYSTONE headquarters. Mr. Rose said things were looking up in his locality, and that the outlook for fall was most promising.

C. J. Linden, of Kankakee, Ill., a familiar figure in this market, was buying goods here last week.

W. A. Penn, of Fulton, Ill., was in the city recently on a business trip.

J. A. Seekatz, jeweler and optician, at Hoopston, Ill., was in the city last week accompanied by Mrs. Seekatz.

Wm. H. Ricaby, of Belding, Mich., was buying goods in this market this week.

The firm of Atkeney & Carmichael, of Corning, Iowa, is represented in this market to-day by Mr. Carmichael.

John H. Murphy, the well-known druggist-jeweler, of Pontiac, Ill., has been calling on our wholesalers to-day.

L. A. Gardner, of El Paso, Ill., was in Chicago this week making purchases for the fall trade.

H. C. Parker, of De Witt, Ill., was in the city this week on a business trip.

A. J. Born, of Mason City, Ill., was making a selection of the latest fall novelties in this market the early part of the week.

Mills & Hupp, of Streator, Ill., have been in town for several days this week selecting a stock of goods for their new store which they are just opening up at Streator. They purchased an entirely new outfit right through.

M. B. Franks, watchmaker for D. S. Sullivan, the well-known retail jeweler of Rockford, Ill., was in Chicago last week spending his vacation. Mr. Franks was a pleasant caller at KEYSTONE headquarters during his stay.

Partial Strike at the Factory of the Elgin National Watch Company.

At the solicitation of the representative of THE KEYSTONE, Mr. John M. Cutter, vice-president and general manager of the Elgin National Watch Co., makes the following statement of the facts regarding the present strained relations between the company and some of its employees:

"Dissatisfaction on their part developed when the prices were announced for performing the work naturally belonging to their respective jobs on the low-priced movements. The jobs affected were the stem-fitting, the training and the finishing. The first to object were the stem fitters, and upon their refusal to take the work, the foreman was directed to transfer it to another job, where female labor is exclusively employed, and to add help accordingly. A committee of stem fitters called on our superintendent, who explained that the price for the work was as much as we could afford to have the work cost, but it was not then in contemplation to change the method of doing regular work or the price; therefore the change was not made as a punishment for their refusal. He explained further that they were not obligated to take the work, but that we were obliged to get it done at a low price. Also that we should, in the near future, require more trainers and finishers, and if any of them were competent to take hold of such work, they should have the preference. Later, after they had reported, an employee on the job came in and applied for such promotion. The trainers also sent in their committee, and, after learning our views, agreed to take hold of the work. Then came a committee from one branch of the finishing job, and quite a lengthy discussion ensued, in which the views of both sides were very fully presented. It was finally terminated by the announcement of the presence in the reception room of persons having an engagement with the superintendent, who was obliged to excuse himself after asking the committee to at least take hold and give the work a trial at the prices fixed. This occurred on August 19th. Later a concession in price was made to both branches of the finishing job, which was refused. No further conferences were solicited by any of the complaining employees as such at the factory. On the 22d of August a party of five from the factory, purporting to be a committee officially delegated by the Watch Workers' Union No. 6961, American Federation of Labor, appeared at our general office, in Chicago, and lodged certain allegations and demands in writing with our president.

"After a brief discussion, an answer was promised on the 25th, which answer fully set forth our position as to the main features of their demand, and referred the matter of detail to the factory manager, who met the same committee on the afternoon of the 26th. In the course of an extended conference, the committee made the very frank, and, we believe, truthful admission, that the prices now being paid for the work on finishing jobs is satisfactory; but their contention was for prices for proposed new grades on which they had done no work, neither had any been issued to them then or since. Quoting the words of a committeeman, "We are not kicking about the prices we have, but the prices we are going to have." Our assurances to the committee were that the finishers were under no obligation whatever to work on these grades if they were not disposed to. But if our business remained undisturbed we believed there would soon be enough work on the better grades for all who are capable

of doing it, and we would take other measures with the new grades since we could not afford the prices demanded for them. These employees had then for two days refused to begin any new work, even on grades which they have been working on for months, and, in some cases, years, at prices which they had just declared were perfectly satisfactory to them.

"And this committee stated most positively that such work would not be resumed until we had assented to their each and every demand, as formulated by their union, and then and there under consideration, which demands embody the payment of a price which we cannot afford for work which they were told would not be offered to them; the discharge of girls from a branch of the work on these same grades, where they have shown equal aptitude with the men on similar work, and the giving of same to men at their own price, and other demands of similar nature in usurpation of our prerogatives in the management of our business. These demands the company, not conceding to the men the right to dictate its actions in such matters for reasons which must be apparent to a discriminating public, was obliged, through its representatives, to firmly decline, after assuring the committee in the kindest manner that we had no intention or disposition to oppress the workmen; that we needed their services as heretofore, and that on the success of our business depended their success. Then, having appealed to them as citizens, as well as employees, to ponder well the probable consequences to themselves and to the vicinity in which they live as well as to us before proceeding to such extreme measures as their attitude seemed to foreshadow in support of a manifestly untenable position, we rested our case, whereupon the committee withdrew. A few moments later the personnel of the finishing and stem-fitting jobs, joined, 'with the exception of one man,' by the trainers, who had previously expressed themselves satisfied and were doing the new work, and followed by male and female sympathizers, aggregating 113 persons, left our employ; which status, up to the present, remains unchanged.

"As the most serious situations often have their humorous side, so in this case, the very climax of absurdity was reached when the girls against whom the strike in part was directed, struck in sympathy and fraternized with their enemies, saying in effect, 'We are determined to be discharged if we have to strike for it.'"

"The Keystone is already an inexhaustible storehouse of valuable information. I was about to add that you could not make it any better, but there is no telling what The Keystone can do."—C. D. Quisenberry Orange, Va.

To be Successful and Happy.

Rise early. Be industrious. Be abstemious. Be frugal. Attend to your own business and never trust it to another. Be not afraid to work, and diligently, too, with your own hands. Treat everyone with civility and respect. Accomplish what you undertake. Never be mean—rather give than take the odd shilling. Honesty is not only the best policy, but the only policy. Time is money. Make your word as good as your bond. Reckon the hours of the day as so many dollars, the minutes as so many cents. Live within your income.



The "SENSIBLE"
Knock Down Show Case and Table

Would you like to know something about it?
READ 42

WHAT IS IT? Did You Say?

Why nothing less than our NEW PATENT KNOCK DOWN JEWELERS' SHOW CASE AND TABLE.

Have you seen the combination? It's a beauty, and the price will astonish and please you. Listen to the following:

This show case is the best all around case on the market.
Can be had in any wood desired; any finish.
Is made entirely knock down; fastened with nickel-plated bolts.
Is more substantial and solid than any other case.
Construction is perfect. Bottom is paneled, preventing warping.
It can be put together by anyone without aid of any tools except a monkey wrench.
Being knock down, it saves freight and reduces risk of breakage.
Shelf supported by brass chain, can be of wood or glass.
It has numerous other advantages which we haven't room to mention.
We will send circular and complete description on application.

OUR KNOCK DOWN TABLE is also a money saver. It will surprise you how cheap it is. Write about it.

We make anything in the line of JEWELERS' FIXTURES. Tell us what you want, and if our catalogue doesn't show it, we will be glad to send special sketches, with prices.

We want your orders. If we get them you will not be sorry you gave them to us. Write us anyway.

M. Winter Lumber Co., Sheboygan, Wis. ESTABLISHED 1865.

7164

GET THE BEST—THE "RIVAL" FOUNTAIN PEN.

\$8.50 per dozen, plain holder, } NET CASH.
9.00 per dozen, chased holder, }

Full Protection Given by This License to Our Customers.

All pens are 14 K. gold. Every pen guaranteed. Gold pens repointed.



PATENTED FEBRUARY 14, 1893.
LICENSED UNDER PATENTS NO. 209,134 AND 311,554.

They have proved to be the best Fountain Pens on the market. Our *STYLO PENS* have also been a great success. Send for catalogue. Export trade solicited.

All makes of Fountain Pens Repaired.

D. W. BEAUMEL, Office and Factory, 45 John Street, New York City.

SELLERS!

A LIBERAL STOCK OF A. & A. NOVELTIES will make money for you.

SELLERS!

Manicure, Sewing and Shoe Sets, Sterling Silver, 925-1000 Fine. Articles Illustrated are 3 times as long and 3 times as wide as Photographs.

8-1084. Manicure Set. \$1.75.
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365-370. Manicure Set. \$1.50.
1021. Manicure Set, Hinge Cover, Velvet Lined, First-class Fittings. \$3.00.
1020. Manicure Set, Hinge Cover, Velvet Lined Case, First-class Fittings, All Sterling Salve Boxes. \$12.00.
65-946. Red Seal Ladies' Card Case and Pocket Book with Sterling Manicure Set, Sterling Pencil and Erasable Slate. \$4.00.
370-384. Shoe Set. \$1.75.
718-719. Manicure Set. \$1.10.
8-1086. Manicure Set. \$2.75.
8-1085. Manicure Set. \$2.25.
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29. Sewing Set. \$2.00.
71019. Manicure Set, Seal Case. \$1.8-1088. Manicure Set. \$2.75.

Discount according to Keystone Key.

SOLID GOLD RINGS, BROOCHES, LINK BUTTONS, LORGNETTE CHAINS, SCARF PINS, GOLD FILLED LORGNETTES, VEST CHAINS, BROOCHES AND BRACELETS.

TO THE RETAIL JEWELER:—We have the most complete, attractive and salable line ever produced. Our well-known reputation and extensive experience guarantee RIGHT GOODS, RIGHT QUALITY, RIGHT PRICES. Our new Catalogue will be ready October 15th. The successful and wide-awake jeweler buys from

Yours truly,

AVERBECK & AVERBECK, 16 and 18 Maiden Lane, NEW YORK.

P. S.—HAVE YOU OUR ADVERTISING OFFER? IT COSTS MONEY. IT IS A TRADE WINNER.



OUR REGISTERED TRADE-MARK IS A GUARANTEE. STAMPED ON SWIVEL AND LINK OF EVERY CHAIN.

A Test and a Testimonial.

A jobber writes us:

DEAR SIR: It may interest you to know the result of a recent test by one of our best customers of your **King Filled Stock Chains**, against those of another prominent manufacturer, proves beyond doubt that your Chains are so greatly superior that there is practically no comparison. Accept our congratulations.

THE ★ H & H CHAINS

have always been in the front rank, and still hold their place.

OUR CHAINS SELL.

They are the standard of quality.

In style, quality and finish we challenge comparison at the same price.

Do not need to be put out on consignment.

Send for quotations through your jobber.

Main Office, Providence, R. I.
Branch Offices, New York, Chicago, San Francisco, London.

ADDRESS ALL COMMUNICATIONS TO MAIN OFFICE.

"Busiest Jewelry Plant in 45 States."

HAMILTON & HAMILTON, Jr., Providence, R. I.

San Francisco Letter.

The jobbers are sending out their travelers with fine, large stocks in anticipation of a good early fall trade, and all indications point towards good business this fall.

Jesse Waterman, of M. Schussler & Co.'s force, recently returned from an enjoyable two weeks' outing.

Jos. Nordman, who was away for two weeks in the Northern part of the State with a few friends on a fishing trip, has returned much pleased with the good success attending their efforts. They hardly knew what to do with the number of fish they caught—and big fish at that.

Leon Carrau has returned with his wife and family from San Gregorio much refreshed by his outing.

Wm. Manning and J. T. Bonestell are away on their annual hunt for deer or anything else worth shooting that comes their way. They expect to have a first-class time.

Allen Marshall has taken Room 24 in the Thurlow Block.

R. Haskell, of Haskell & Muegge, has returned from a trip with his wife to the Yosemite Valley.

W. K. Barmore has resigned his position with the Keystone Watch Case Co. and gone into the retail watch business for himself.

Geo. Greenzweig has returned from the East, where he has been for some time looking up new ideas in watches, jewelry, etc., with which he expects to please his many friends throughout the State.

Alfonse Judis has just come back from a pleasure trip to Bartlett Springs, and expects to be greatly benefited by his sojourn there.

G. A. Brown, traveler for A. I. Hall, is up North hustling for business with his many friends and customers in the trade, and that his hustling counts for something is evidenced by the number of orders he is sending in. Trade must certainly be looking up in that productive Northern California.

Chas. Untermeyer, of Keller & Untermeyer, has left this city for home, taking with him many good-sized orders, and the wishes of all his many friends are for a safe return.

Chas. E. Graebe, of San Jose, Cal., is away from home on a trip Eastward, where he goes combining business with pleasure.

M. A. Goldman has returned from a trip to Honolulu, and it is said is soon to open a fine jewelry store in Waiwala. Mr. Goldman was formerly of Bakersfield, Cal.

E. F. Heath has succeeded the firm of Heath & Ekstrom, Santa Rosa, Cal. THE KEYSTONE'S wish "that he may have every success" is echoed by his many friends in 'Frisco.

Chas. Weinschenk, of Armer & Weinschenk, returned from his trip to the Northwest and is again off in another direction. He continues to keep the home force busy filling the many orders he sends in and looks forward to a big fall business. May his expectations be realized.

A. Green, father of Walter Green, of Carrau & Green, is expected back from Europe this month.

A. Steffanoni has returned from his sojourn in the St. Helena Mountains.

M. Wunsch seems to have entirely recovered from his severe illness. May he long continue to enjoy good health.

Among the many different representatives of Eastern manufacturers in 'Frisco this month we noticed the genial countenance of J. Jepson, of Riker Bros.; warm-hearted L. Brooks, of M. S. Benedict Mfg. Co., and well-known and liked S. S. Batten, Jr., of Batten & Co.

E. V. Saunders goes South in the interests of A. I. Hall & Son, and, it is needless to state, will keep the boys at home busy sending him goods to replace those he delivers.

Jos. A. Wilson & Co., proprietors of the Ensign Novelty Co., 510 Market Street, this city, shipped a large lot of patriotic novelties to Honolulu, Hawaii.

Wm. P. Morgan, Pacific coast representative of the Meriden Britannia Company, last week rendered his final account as the receiver of the Golden Rule Bazaar, reporting that the creditors had been paid in full and that a large surplus had been paid to the partners.

S. Weinschenk, traveler for E. Hirschfeld, is away on his fall trip, and that he is having success is evidenced by the amount of goods being sent him to replace those he delivered.

M. German, lately of San Diego, Cal., who has been conducting an auction in this city, has completed his sale and has engaged in business in Salt Lake City, Utah.

L. Zacharias, who recently discontinued his store at Bush & Kearny Streets, will again engage in business on Third Street.

Louis Braverman, who, it will be remembered, retired from business several years ago, visited a number of his friends in this city of his early triumphs, where he found a warm welcome.

P. Fredericks has just returned from a business trip and reports good trade. No one deserves it more.

Neill O'Neill moved into larger quarters at 20 Market Street.

Dana, the well-known and genial representative of Carter, Hastings & Howe, left here to visit his trade on the Southern coast. He expects to return later on.

Col. A. Andrews, proprietor of San Francisco's famous Diamond Palace, was one of the delegates to the Democratic State Convention which met at Sacramento.

Sam Sonnenfeld, lapidist, has returned from his trip to Northern California, where he went to examine alleged precious stones found in a new locality.

Glinderman & Schweitzer sold a number of watches and considerable jewelry to returned Klondikers.

J. R. Jenkel, of J. R. Jenkel & Co., Academy of Science Building, has introduced a beautiful souvenir spoon. It is of fine silver, very heavy and enameled, the bowl being in shape like an orange leaf and the handle an orange branch showing several yellow oranges, orange blooms and orange leaflets, the whole making a very handsome souvenir and one sure to be well liked by the many tourists visiting San Francisco, as well as sought after by the home public.

S. Nordlinger, of Los Angeles, Cal., will stop over with us a few days on his trip to the East, where he goes to make his usual annual purchases of pretty, new things for his fall trade.

Frederick & Haas have started in business at 220 Sutter Street as manufacturers' agents. Among many other lines we notice Ullman Mfg. Co.'s well-known and greatly sought after art novelties.

By the time this reaches the eye of THE KEYSTONE'S many readers on the Pacific slope, A. I. Hall & Son's handsome and complete catalogue will be ready for delivery.

W. Reed Williams, of Philadelphia, assumed charge, on August 1st, of the branch office in this city of the Keystone Watch Case Co.

A. A. Ritter has removed from Occidental Hotel Block to 237 Kearny Street, where he gets more space.

H. Cohn, of Cohn Bros., has returned from his vacation spent very pleasantly at Bartlett Springs.

H. J. Mayer, buyer for the Emporium's watch, jewelry, silverware and clock department, has returned from his trip East, where he has been looking after and securing goods sure to please his many patrons.

W. E. Lawrence, bookkeeper for Carrau & Green, is away on his vacation to the beautiful Santa Barbara. May he come back much refreshed and benefited by his trip.

P. W. Murthin, watchmaker with A. I. Hall & Son, has reported for duty again, stronger and better in every way from the effects of his trip up the beautiful Sacramento River, which he enjoyed all the more because the boat he made the trip in was built entirely by himself.

C. H. Steinmetz, of Suisun, Cal., was in this city on business connected with his ranch of some six thousand and over fruit trees. He reports that he will have the best crop of prunes and pears he ever raised. He enjoys the drive from his store to and from the ranch every day, and looks for a big fall trade in watches. He deserves all the success he is reaping if any one does. His many friends here are always glad to see him.

The following well-known jewelers were in town last month: T. G. Patton, of Placerville; M. Sair, of Fresno; H. S. Parlin, of Stockton; C. J. Kline, of Santa Cruz; Peter Johnson, of Angels Camp; Peter Hoy, of Jamestown; F. W. Carter, of Santa Rosa, and many others. In a general talk with a number the feeling was generally expressed that despite the drouth, which has affected the pocketbooks of the growers to some extent, there would be a good fall business.

M. J. Baer, representing the Attleboro Manufacturing Co., Attleboro, Mass., will visit this city during the present month with a full line of samples.

A. I. Hall & Son have taken the Pacific coast agency for C. Dorflinger & Sons, manufacturers of fine cut glass-ware, of New York.

What Constitutes Success in Business.

To make money is not the greatest requisite for true success in business. But to gain a reputation for honorable business methods, to have the confidence of business men and the respect of employees, coupled with successful business management, should be the aim of all men who enter upon a business career. The majority of successful men are of this type, and few ever succeed in making money who have no higher purpose than gain.

"Enclosed find one dollar for renewal of my subscription to The Keystone. Your paper is worth ten times the amount asked for it, and I would not be without it."—*L. E. Lambert & Co., jewelers, Albia, Iowa.*

A Beautiful Jewel Case.



A jewel case of unique beauty is shown in our illustration. It is made by the C. F. Monroe Co., Meriden, Conn., manufacturers of the celebrated Wave Crest opal ware. The body of the case is of opal, the background being a beautiful combination of tints, decorated very artistically with tracings in raised enamel and gold. The decorations vary in design. The trimmings are gold-plate with artistically ornamented handles. The top of the trimming has a raised or embossed knurl of a neat, pretty design, harmonizing with the general character of the work. The case, in its entirety, is, indeed, a "thing of beauty."

New Lines of Hollow-ware.



Our illustration shows a handsome sample piece of the new goods in sterling and silver-plated ware manufactured by the Middletown Plate Co., Middletown, Conn. This single sample is sufficient to show that their efforts to surpass all their previous triumphs in handsome designing have been crowned with success. All the pieces are of striking beauty, the shapes being exceptionally graceful in outline and the ornamentation being, in kind and quantity, such as to emphasize the elegance of form of the pieces, and give them maximum attractiveness and richness of appearance. The certainty of a big fall demand for this class of goods makes them worthy of the attention of the trade.

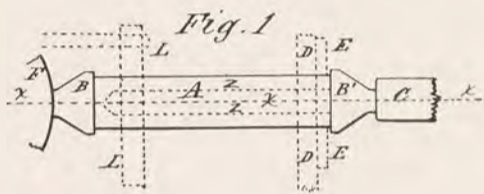
American Lathes and Their Attachments.

XCV.

How to Drill Blanks for Wire Chucks.



THE importance of drilling our blanks for chucks perfectly axially is so great that we shall dwell on it to some length. The reader will remember, that by means of a bell chuck in the tail-stock spindle we set the jaws of the back rest so as to maintain the axial relations of the blank for the wire chuck in perfect coincidence with the axis of the lathe. This will be understood by inspecting Fig. 1, where we show the several parts which



affect the problem of axial alignment. Here the central dotted line *x* passes through and coincides with the axis of the lathe spindle, the blank *A* and the tail-stock spindle *C*. The reader will further remember that we set and secured the jaws *E* of the back rest *D*, while the piece *A* was held at each end by the bell centers *B B'*.

It will be evident that we can remove the bell center in the tail stock and the blank *A* will still maintain the same relation to the axial line *x*. We now place the drill, which we described how to make on page 645, August, 1898, KEYSTONE, in the tail-stock spindle and proceed to drill out the blank *A* to the dotted line. Theoretically the piece *A* will need no centering, as the drill we make so carefully will start itself; but it is at the least safer to center the piece *A* after the bell center is removed, by putting up the T-rest and starting a center with a sharp graver. The slightest pit will answer to start the drill. It is to be understood that when drilling out the piece *A* the driving parts shown at Figs. 4, 5 and 6, page 571, July, 1898, KEYSTONE, are employed.

How to Drill Axially

In drilling steel it is hardly necessary to say the drill must be kept well oiled, retracting the drill every few seconds to remove the chips. As the blank *A* revolves it is well to turn the tail-stock spindle slowly against the action of the lathe. It requires but a short time to drill such a blank, two minutes will be found ample time after a little experience. It is well to have a mark on the drill, so as to know when the hole is drilled deep enough. It is perhaps well to say such holes will vary a little in depth, according to the size of wire the wire chuck we are making is intended to grasp. The smallest wire chuck now made takes a wire about $\frac{1}{1000}$ " in diameter; but it is only once in a lifetime such a chuck is required. A chuck which will grasp an O Elgin staff, which measures about $\frac{1}{1000}$ ", will be as small as will be required.

We gave brief instructions in a former article for continuing the hole, represented by the dotted lines *z z*, Fig. 1, through the blank *A*, but we will now give more complete details. After drilling the blank *A* to sufficient depth—such depth to be according to the size of wire to be grasped, as above stated—the blank is removed from the lathe and a perfect center established by the tool

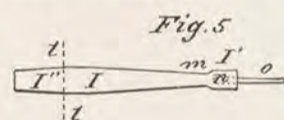
shown at Fig. 2. This tool is simply a piece of steel wire turned to exactly fit the hole in *A*, and the point *y* hardened and ground to a perfect point at an angle of 60° . This tool is inserted, point foremost, in the hole in the blank, as shown at Fig. 3, where *A* represents the blank and *G* the pointed centering tool.

In using this tool, the blank *A* is set with the end *v* on an anvil and the end *w* struck lightly with a small hammer, to make a delicate center for the small hole we are to drill at *s*. The size of this hole will depend much on the size we wish the chuck to grasp; usually an allowance of $\frac{3}{1000}$ " will be sufficient. To do this drilling we place the piece *A* back in the lathe, as shown at Fig. 1. We next provide a drill of suitable size for drilling the hole *s*. Such drills for chucks which are intended to grasp sizes above $\frac{2}{1000}$ " can readily be made from a piece of Stubb's steel wire about $\frac{1}{16}$ " in diameter.

How Small Drills Are Made

To make such a drill, place a suitable piece of steel wire in a wire chuck so enough protrudes to shape a drill. We show such a piece of wire at Fig. 4, with the drill at *u*. There is no necessity for giving any instructions for making such a drill, as those given on page 645, August, 1898, KEYSTONE, apply, except for size.

For drills smaller than $\frac{2}{1000}$ " take a piece of brass wire two inches long, which will fit a No. 18 Rivett or No. 40 Whitcomb chuck, and, placing it in the wire chuck, turn one end to a taper to fit the taper chuck; after such taper is turned we insert this taper in the taper chuck up to the line *t*, Fig. 5. We now center and drill the end *n* of the piece of brass wire *I* with a hole about $\frac{2}{1000}$ " diameter. We next shape the wire to the form shown.



For a drill we take a piece of a good steel No. 3 or 4 sewing needle, and after drawing the temper to a full blue, proceed to turn a drill of the size we desire; then flatten the point with a file, after which harden. Drills so made should be set in the end *I'* by means of lathe cement or, what is better, soft solder, truing the point of the drill *o* with the finger while the cement or solder is soft. Such drills run absolutely true and are rigid when pushed into the hollow blank *A*. The reader will remember that we made the point of our drill for drilling the hole in *A* to an angle of 90° . Now it will be seen that as the point of the centering tool *G* is 60° , such point will readily form a perfect center for drilling. If our instructions for drilling are perfectly carried out, there will be no error in axial relations to exceed $\frac{1}{1000}$ ".

A Priceless Possession.

Credit is the most precious possession a business man can have. It is acquired, maintained and preserved by certain qualities that I believe are inherent in the man. Credit is like a delicate piece of porcelain. You may break it and put it together again, and for purposes of utility it may possibly be just as good as it ever was, but the cracks are there, and you can see where it was broken. And so it is with the man whose credit is once impaired. He may be able to buy goods again, his standing among mercantile houses may be very fair, but it can never be restored to the superb condition it once was. And so I would warn all merchants, young and old, to regard credit as a priceless possession.

—Dean.

Dont's for Salesmen.

Following is an excellent list of "Dont's" for salesmen, the study and memorizing of which would pay every clerk in a jewelry or other store. They state in brief form what not to do to succeed.

Don't make a practice of coming late to business. It's more to your interest to be a few minutes early.

Don't dress dowdily, gaudily or dudishly, but cleanly, neatly and nicely.

Don't wait upon customers with your hands dirty or your finger nails in mourning.

Don't forget that it does not cost a cent to be a manly man or a womanly woman.

Don't allow dirt or disorder in your stock. Keep store as a good housekeeper would keep house.

Don't get excited in times of a rush or at any other time. It shows the customers that you are inexperienced and unaccustomed to an active business.

Don't chase customers. Wait till they stop and show that they are interested in certain goods, then approach in a business-like manner.

Don't greet your customers with a beer, tobacco, liquor or onion breath. It hastens them to move on to more fragrant surroundings.

Don't chew gum or tobacco.

Don't be ungentlemanly or discourteous to customers.

Don't make remarks or criticisms in regard to the color or dress of customers.

Don't stand and stare at customers.

Don't stand in a listless manner while customers are examining goods. Be attentive and show an interest in your employer's business.

Don't forget that upon the amount of your sales, to a great extent, depends the amount of your salary.

Don't fail to remember that it is for your interest to take short lunch hours on busy days.

Don't fail to remember that customers frequently hand you a \$2.00 bill, and when you hand them the change declare they gave you a \$5.00 bill. Call back the amount every time; it's easy when you get used to it.

Don't forget that no sales means no profit.

Don't misrepresent goods. You can sell more without. "A pleased customer, always a customer."

Don't fail to know what goods are in your stock, and where to find them quickly.

Don't underestimate the real worth of a customer to your employer. Sometimes a good customer indirectly pays your salary.

Don't permit a customer to leave dissatisfied or offended, before sending for some one in higher authority.

Don't be undignified.

Don't be so persistent in your efforts to make a sale that you make yourself objectionable to your customer.

Don't argue or contend with business associates in the presence of customers.

Don't permit envy or unfriendliness to exist between you and other employees. Best results are obtained by concerted action.

Don't disregard instructions from those holding superior positions.

Don't think all customers are honest.

Don't give might-be thieves a chance to steal.

Don't expect an increased salary from any source but faithful and valuable service.

Don't think you are not appreciated if you are worthy. When business justifies it you'll share in the benefit.

Don't say: "I was not hired to do that"; it might cost you your situation and reference to obtain another.

Don't delude yourself by thinking you are deluding your employer if he does not constantly call your attention to your business faults.

Don't lose sight of the fact that your record is as much to you as your salary—sometimes more.

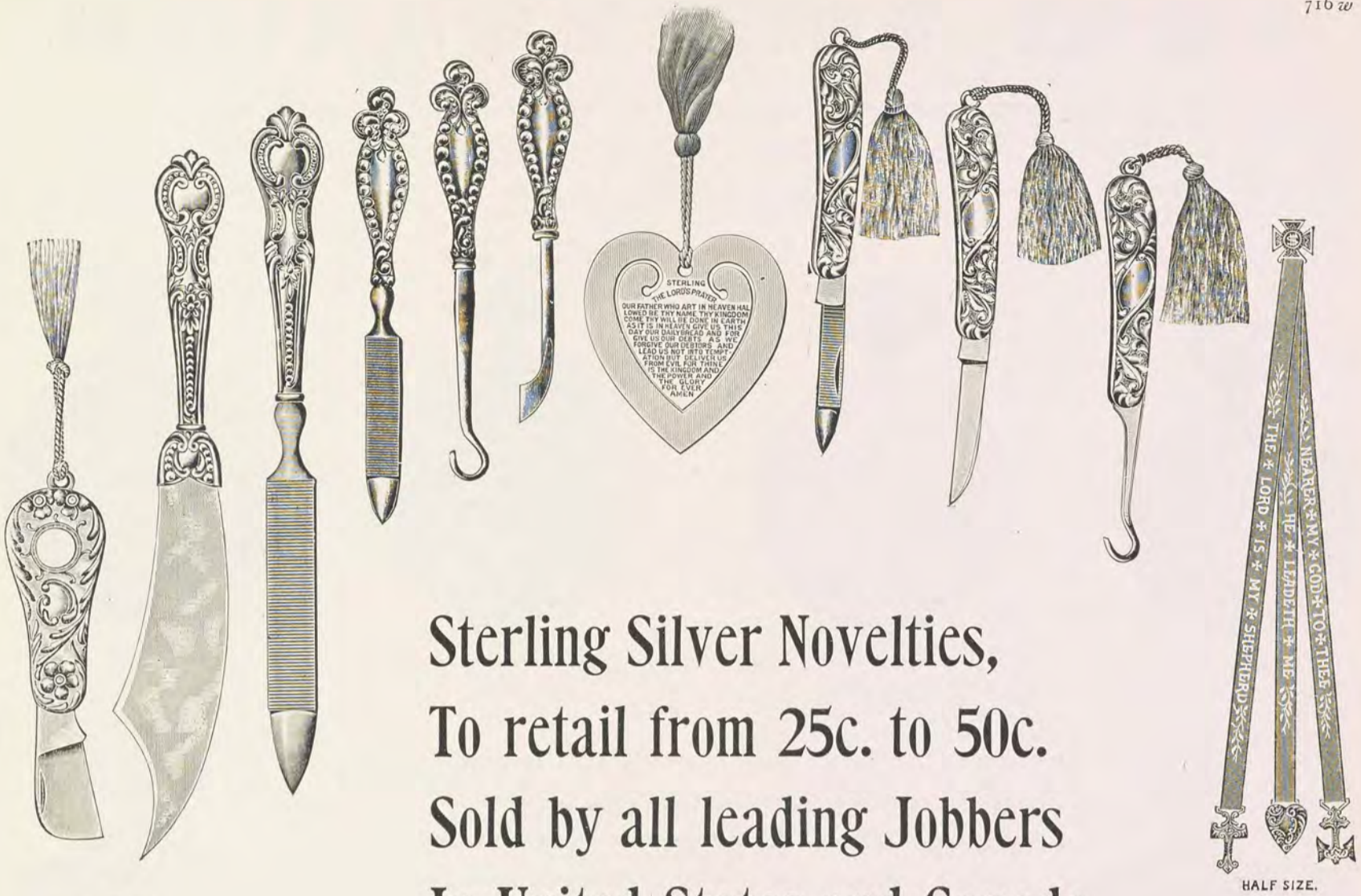
Don't accept a position unless you are perfectly willing and anxious to follow the rules of the store, in every detail, pleasantly and efficiently.

Beyond Compare.

SAN DIEGO, CAL., August 15, 1898.

ED. KEYSTONE.—After reading several of your recent issues we desire to say that you have a most excellent journal, particularly the pointed and seasonable remarks of "John Tweezer." If your paper contained but one-half of the reading matter we would gladly pay one dollar per year. We congratulate you on the excellence of your paper, and we believe there is nothing in Europe to compare with it at any price.

J. JESSOP & SON.



Sterling Silver Novelties,
 To retail from 25c. to 50c.
 Sold by all leading Jobbers
 In United States and Canada.
 Ask for Attleboro Mfg. Co.
 Goods.



HALF SIZE.



716.x **For Cash Buyers—We Make Prices that Will Pay You to Send Cash.**

EVERY CASE IS STAMPED WITH MAKERS' NAME AND HAS THEIR GUARANTEE.

WHO EVER HEARD OF SUCH PRICES AS THESE ON A RISING MARKET?

How we would like to put name of manufacturer in this space. As we bought this lot of cases with the understanding that their name was not to be used, we take our chances that you will order SAMPLES on the strength of low price. If you do, we know when you see goods you will send us a duplicate order.

BE WISE AND ORDER FROM US.

PRICES ARE NET CASH.

BE WISE AND ORDER FROM US.



No. 370.
Assorted Patterns.
\$5.10 Buys 14 K. O Size Case.
25 year guarantee.



No. 371.
Assorted Patterns.
\$5.50 Buys 14 K. O Size Case.
25 year guarantee.



12 Size, No. 372.
Assorted Patterns.
\$7.34 Hunting. \$6.57 Open-Face.
25 year guarantee.



Engine Turned.
12 Size, No. 373.
\$7.34 Hunting. \$6.57 Open-Face.
25 year guarantee.
Antique pendant, spot or shield center.



16 Size, No. 374.
Assorted Engravings.
\$8.88 Net Cash, Hunting.
8.28 " " Open-Face
25 year guarantee.

We have cut the price of 18 size Sun Dial Movements
You know whose make they are.

Htg. or O. F., **\$1.75**, less 6 per cent. for cash.

Don't overlook our price on Complete Watches.
Sun Dial or Century Seth Thomas Movements
Fitted with

Screw Back and Bezel, Nickel Case,	\$2.26	net cash, complete.
" " " " 5 year Filled Case,	3.05	" "
" " " " 20 " " "	5.38	" "
Hunting, 5 year Filled Case,	4.38	" "
" 10 " " "	4.53	" "
" Rolled Plate Case,	2.48	" "
Open-Face " " "	2.35	" "

DON'T WAIT, BUT ORDER AT ONCE. THEY WON'T LAST LONG AT THESE PRICES.



16 Size, No. 375.
Assorted Engravings.
\$5.88 Net Cash, Hunting.
5.46 " " Open-Face.
25 year guarantee.

\$7.63 Buys 14 K. Hunting Case.
Guaranteed 21 years.
8.00 Buys 14 K. Hunting Case.
Guaranteed 25 years.

\$6.00 Buys 14 K. screw Back and Bezel Case.
Guaranteed 21 years.

\$3.75 Buys 14 K. Screw Back and Bezel Case.
Guaranteed 20 years.
2.40 Buys 14 K. Screw Back and Bezel Case.
Guaranteed 5 years.

Trump
Waterbury
Watches,
\$1.25
each, or
\$14.10
dozen lots,
net cash.



18 Size, No. 376.



18 Size, No. 377.



18 Size, No. 378.

New
14 Size
Trump
New England
Watch,
plain dial,
\$1.50
each;
card dial,
\$1.80
each,
net cash.

Our Mammoth Annual Catalogue, under the title "**RESTLESS AND SLEEPLESS**," will be ready for delivery during this month, September. Sent to legitimate jewelers only. All charges paid. Our book this year is the largest and most complete book ever sent out. Full of bargains and showing a complete line of everything needed by the Jeweler and Watchmaker. **LOOK OUT FOR IT!**

SEND TO US FOR PRICES ON ELGIN AND WALTHAM MOVEMENTS.

Send orders to
RESTLESS and SLEEPLESS

B. F. NORRIS, ALISTER & CO.,

101, 103, 105, 107 State Street,
CHICAGO, ILL.

Arts Allied to the Jewelry Trade.

XOX.

Stability in Lathes Considered.

It is not to be understood that we advocate the use of a slide rest held rigid by means of a weight as being superior to the plan employed in most modern lathes, of using a gib for securing the carriage to the ways of the lathe. Our chief claim for the weight method lies in its simplicity and ease of construction. As far as accuracy of work produced is concerned, however, the slide rest held down with a weight will equal that produced by any form of lathe, and perhaps in some instances surpass the gibbed carriage, as for instance, boring out a cylinder which is attached to the carriage, and the boring conducted by means of a boring bar which carries the cutting tool. We do not have the time and space at present to devote to the consideration of such mechanical abstractions farther than to notice such as bear particularly on the subject in hand.

We will, however, make a statement which covers the question of stability as secured by means of a weight applied to holding down the carriage to a lathe. We show at Fig. 1 a sort of typical carriage and tool post which will serve to illustrate our explanation. As stated in former article, the chief stress exerted on the tool *C* will be downward, or in the direction of the arrow *y*. Let us imagine that it required a given force, say

thirty pounds, to revolve the piece *G* which is being turned. To make the illustration more practical, let us imagine the piece *G*, represented by the circle *z*, 2" in diameter, and we should wrap a cord around such piece, leaving the loose end of the cord hanging down at *x*, as shown at the dotted line *x*. Now, in order to turn *G* against the action of the cutting tool *C* we would require a force of thirty pounds pulling down on the cord *x* to effect the work.

We will further imagine that we reverse the tool *C*, as shown at the dotted lines *C'*, and turn the piece *G* in the direction indicated by the arrow *u*. Under these conditions the tool *C* would still cut and the piece *G* would require as before a force of thirty pounds to revolve it, but in the last cited instance the action would be to lift up on the tool *C*, and through it lift the slide or carriage *B*. It is partly to guard against such lifting that we suspend the weight *F* from the carriage *B*. It is evident that if we should suspend a weight of fifty pounds from the carriage *B*, and that if no lifting force would ever be applied to exceed thirty pounds, the carriage would, in every instance, be rigid.

But there are other forces and stresses to be provided for, as will be understood by inspecting Fig. 2, which is a view of Fig. 1 seen in the direction of the arrow *w*. A moment's inspection and thought will show us that as the slide *B* is fed back and forth in the process of turning, that there will be a tendency of the

tool post *E* to rock in the direction indicated by the double headed arrow *t*. It is also evident that if the weight *F* is sufficient the tool *C* will still be held rigid in all positions. As we have previously stated, the tool *C* and tool post *E* were employed only for illustration, as they are very simple in construction. We will now describe the practical swing rest which we are to substitute for the usual traverse slide.

The bed *B* for our swing slide rest is essentially the same as the one shown at Figs. 1 and 2, except it is a little longer and has two supports for the swing tool holder. We show at Fig. 3 a

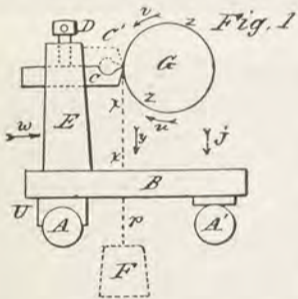
plan view of the swing slide when completed, and a side view, or as if Fig. 3 was seen in the direction of the arrow *i* at Fig. 4. The pieces *s s'* are cast fast to the bed or slide *B*. The pieces *s s'* are about 3/8" thick and 3" long; they rise from the bed *B*, as shown in Fig. 4, about 3/4". The pieces *s s'* are pierced with four holes 1/4" in diameter, as shown at *r*, Fig. 4. We show the swing piece *L* separate, as if seen in the direction of the arrow *f*, Fig. 4, at Fig. 5.

The swing piece *L* is made of cast iron, and the wood pattern from which the casting is made should be fashioned from a piece of board about 5/8" thick, and the upper part where the tool post goes should have an extra thickness of wood glued on so the part which secures the tool post is fully 1" thick. A good idea of the shape of the swing piece *L* will be got from Figs. 4 and 5. The stud *H* rises 3" from the base *B* and is employed for supporting the swivel nut *N* of the traverse feed screw *I*. The lower part of the swing piece *L* terminates in two lugs shown at *L' L''*, Fig. 5. Through these lugs passes a steel pin on which the swing piece *L* turns. It is well to make this pin slightly taper to insure a perfect fit.

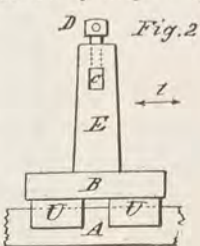
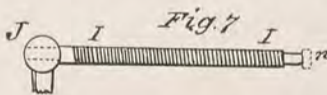
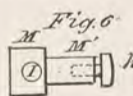
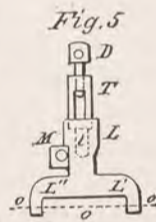
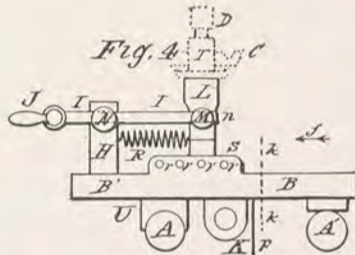
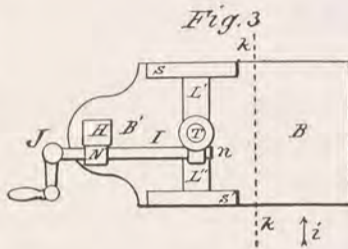
We show one of the swivel nuts, like *N* or *M*, separate at Fig. 6. These nuts are in every way alike, except *M* has a smaller hole which is fitted to the end *I* of the screw *I*. At the end of the screw *I* is a screw shown at *n*, Fig. 7. This screw is placed outside of *M* and serves to hold the bearing *I* from end snake. There is also a washer with a square hole which goes on a square on the screw *I* to prevent the screw *n* turning out as the traverse screw *I* is revolved. The top of the swing piece *L* is cut square across, as shown at Figs. 4 and 5. The top of *L* is also drilled to two sizes of hole, that is, first a hole 1/2" in diameter which extends in 1/4", below this is another hole 3/8" in diameter and 5/8" deep; this last named hole is tapped out to fit the screw *T'* Fig. 8.

The piece *T'* is the tool holder for holding turning tools. The tool holder *T'* is provided with concave ring and rocker piece, as we see with the slide rest of the Whitcomb and other lathes. The rectangular opening in the piece *T'* receives the turning tool *C*, said tool being clamped by the set screw *D*. It is not to be understood that the screw *T'* has anything to do with adjusting the height of the tool *C*, all that the screw *T'* does is to hold the tool post *T* in the swing piece *L*. A strong spiral spring shown at *R* takes up any lost motion of the screw *I*.

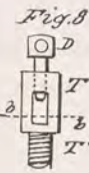
Rigidity of a Tool Rest



A Swing Slide Rest



The piece *T'* is the tool holder for holding turning tools. The tool holder *T'* is provided with concave ring and rocker piece, as we see with the slide rest of the Whitcomb and other lathes. The rectangular opening in the piece *T'* receives the turning tool *C*, said tool being clamped by the set screw *D*. It is not to be understood that the screw *T'* has anything to do with adjusting the height of the tool *C*, all that the screw *T'* does is to hold the tool post *T* in the swing piece *L*. A strong spiral spring shown at *R* takes up any lost motion of the screw *I*.



"I have, either in my own name or through the firm, been a regular subscriber for several years, have also taken other journals of the trade, but *The Keystone* is worth them all taken together. The "Workshop Notes" are alone worth many times the subscription price."—T. F. Carr, of Carr & Pieratt, jewelers, Ezel, Kentucky.

The Money-Back Idea in Store Keeping.

Everybody knows the story of the unsophisticated person (sometimes it's a man and sometimes it's a woman) who, upon hearing that the credit of his banker was doubtful, said at the paying teller's window: "If you've got my money, I don't want it. If you haven't got it, I want it." This is in line with the "money-back" idea in advertising. The first thing that looks like and really is a great advantage to the buyer is that the risk of buying is removed. People buy more readily, more trustingly, are more willing to overlook slight defects in their purchases when they know that they may be returned.

This system fosters good will in the mind of the purchaser. The "money-back" offer implies that there will be no need of the return of the goods; that the merchant is confident of his part of the bargain; he has something good that he will share fairly with his neighbors.

If it sometimes happens that goods are returned, then it is the better part of the advertisement to receive them graciously; admit their faults; in no manner throw doubt either upon the word or the judgment of the customer. In nine cases out of ten the suave manner of the receiver of returned goods will hold the customer with hooks of steel. He or she will regret the transaction much more than will the merchant.

Too Much St. Paul.

The following comes down from St. Paul by way of a Chicago hardware man:

A certain gentleman of Hibernian nativity who paid more attention to the growth of his business than to the salvation of his soul, became very rich in Minneapolis and in due time his fellow townsmen elected him to the city council. To prevent any danger of assault and battery we will call him by the classic patronymic of O'Toole—Alderman O'Toole, the man of noble ambitions and many seeds. The early education of Alderman O'Toole had been gained under circumstances so adverse as to prevent his gaining very much of it, but what he lacked in familiarity with books he made up in experience and dollars. Keenly realizing his deficiency along certain lines, he exacted a promise from his colleagues in the city council of Minneapolis that whenever it became necessary to pass upon an important measure they would give him a day in which to think it over before voting. Soon the question of the reading of the Bible in the public schools came up and Alderman O'Toole requested a day's delay while he thought it over. Calling a friend aside, he asked in a whisper: "Say, Mack, where can Oi get a Boible?"

"O, at any book store, Alderman," the friend replied. The next day Alderman O'Toole appeared with a determined look about his visage. "Well, Alderman, how are you going to vote on the Bible question?"

"Oi am agin it," said the Alderman. "What! Don't you believe it is proper for the children of the Minneapolis schools to read the Bible?"

"Oi do not."

"Why so? Give us your reasons, Alderman." "Oi took the Boible home wid me la-ast noight an' Oi read some of it. Oi found it was all the toime talkin' about St. Paul, St. Paul, St. Paul, 'till ye couldn't r-resht, but divil a wor-rd did it say about Minneapolis a' tall."

WITHOUT A RIVAL

The Canadian Horological Institute

First-class buildings, equipment and instructors combine to make it the One Horological School on the Continent. A confession forced by us at last.

EVERY ONE READ THIS! Can young men without experience become thorough watchmakers in one year?

One school said, YES! WE SAY NO as always, a thousand times NO.



For years certain schools disgraced the profession they **misrepresented** so glibly, until nearly all are viewed with distrust. Ridicule is heaped on their innocent pupils, who really believe watchmakers, jewelers, engravers and opticians can be qualified in that period, *because* large and wealthy schools say so. They begin that way; there's money in it, and a dislike to burn their bridges behind them. Good pupils do acquire knowledge in one year, which, to the uninitiated, seems marvellous, and is accepted as proof that the pupil is thoroughly qualified. This is how the wool has been pulled over the eyes of wealthy and deserving people. The high standard of instructions! save the mask of "experts!" who know so much that pupils acquire and assimilate it all in one year. The time-honored name "Horological" is sullied to the verge of endurance. Even we, who at tremendous costs and sacrifices, have ever stood for principal and merit, as against the opposite, were accused of being of that ilk. We have nothing in common with them, and feel the slur cast upon a grand profession. At Glashütte and Karlstein the term is three years; at Toronto two years for horology only, with privilege of six months extra without charge. To those of previous experience the term is somewhat shorter. The brightest pupils cannot acquire the teachings in less than two years. We lose money by telling the truth, then how much are we impressed with this question?

WE WOULD BE SCHEMERS IF we claimed to do impossibilities; if we, under "Theoretical Studies," quoted the entire index to "Saunier's Modern Horology" without credit. If pupils produced watches (would be glad to notice a still greater change for better) and models with balances the same size as fourth or escape-wheels, and showed by arrangements that elements of applied mechanics were misunderstood. If pupils received "expert" instructions, through which train was improperly placed and no room found for escape-wheel in marine chronometer. If we claimed board to be \$2.50 and not state that four occupied one room. If photos of previous pupils were published and referred to as "some of our students;" finally, if "we put our foot in it" when writing a few lines slightly technical in character, then indeed would we be unworthy of confidence.

We give illustrations of a dozen 16-size chronometer watches, designed and mostly begun when pupils had one year's experience, balances and all other parts made by them. Won seven prizes in United States and instructors received highest tributes. **Why don't others get them?**





Facts vs. Fancies

Tourbillon Chronometer, 16 Size Movement.

This is one of the few schools in the world, and only one on this continent, which produces such a watch. We challenge denial.



This is **our** No. 16, compare it with another No. 16. Watches are like eggs, some good, others—well, you know—notice Tourbillon frame in ours, exceedingly delicate, beautifully proportioned and fashioned true to the geometrical principles involved. In the other No. 16, frame is clumsy, made without regard to science; the trade will appreciate “**that** fine escapement” at **its true value**. The mechanism, excepting barrel, is seemingly too small; a “thoroughly practical man” should be informed that “Tourbillon escapements,” etc., is a bad give away. So it is not more difficult than others? Well, not to carry, **provided** it is the **same size as ours**; the one referred to is **several times larger**. Again, **we challenge denial**. We just received a letter from a maker of Tourbillons, who won 34 gold medals at World’s Fairs. He says: “The Tourbillon is a very interesting but also very difficult piece of work, and requires great perseverance.” It is evident he meant **a Tourbillon**, and not an apology for one.

FINALLY, THERE ARISES A VISION of the future, distant perhaps, inspiring when it does come, of a nobly endowed and good school, with resources legitimately employed in the true interests and advancement of horological education intelligently administered, a real strength (oh, banish the weakness!) to other good schools. For over eight years we fought, not men or schools, but **make-believe schemers**. Give us a competitor, a worthy rival for high quality and achievements, a worthy foeman to our mettle, meriting our best endeavors. How grand to try conclusions for education and fame alone. Follow the leader! What of it? Turn around and follow us, simply because we’re on the right track. Let it be soon, and we will be the first to give credit when honestly due.

The new term is now beginning. Write for circular and mention THE KEYSTONE.

CANADIAN HOROLOGICAL INSTITUTE

115 to 121 King Street East

TORONTO, ONT.

LOUIS A. SCHERR & CO.

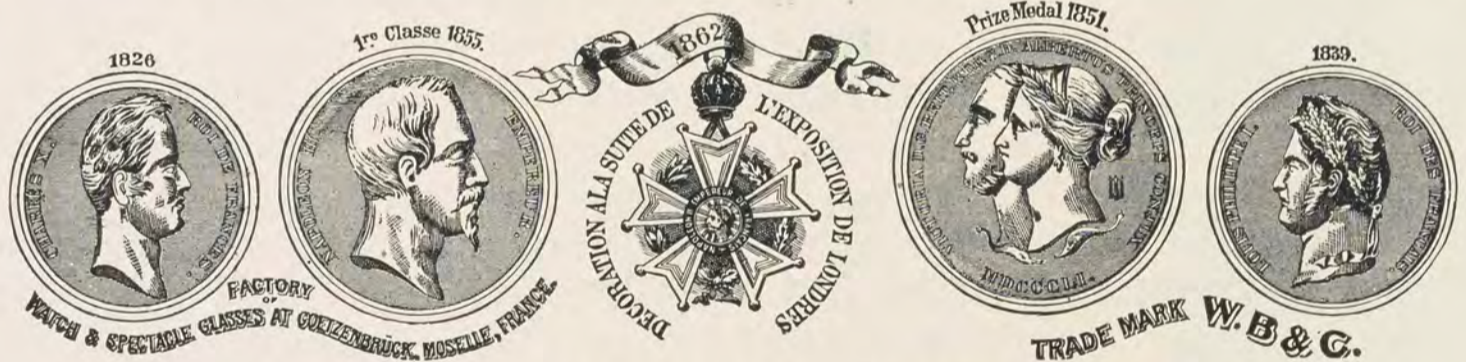
Diamonds
Watches
Jewelry, Silverware
Watchmakers' Tools
Material and Glasses, Etc.

Special Agents for

Moseley, Rivett and Whitcomb } Lathes and Attachments

726 CHESTNUT STREET
PHILADELPHIA
PA.

Over 25 Silver and Gold Medals awarded to the **W B & C** Glasses at the different Exhibitions of the world



The only Medal at the World's Fair for Watch Glasses was awarded to the **W B & C** brand.



WATCH GLASSES

The **W B & C** Glasses

are known to be the BEST



Everybody knows that the **W B & C** glasses **HAVE BEEN, ARE, AND WILL ALWAYS BE** the leading brand of glasses in the market. Their finish, clearness, flexibility and correctness of size make them so that the leading jobbers in the United States will use no others at any price. Four-fifths of the case manufacturers are using them on account of their accuracy and perfect roundness. They used to buy a cheaper grade of goods, but soon found out the wisdom of the old proverb, "The Best is the Cheapest at the End."

WATCHMAKERS!! If you wish to save time and money and give good satisfaction to your customers (if you are not using them), try the **W B & C** and don't be deceived by bluffing and humbugging advertisements, showing a lot of nonsensical figures. The **W B & C** glasses are in existence over sixty years, and during that time a great many brands have sprung up in one day, and never heard from afterwards.

It is a good and reliable glass you want, which is the **W B & C**.

Essentials of Successful Business-Doing

Sound Ideas and Shrewd Suggestions of a Western Merchant

AT the recent annual meeting of the South Dakota Retail Merchant's Association, President Wood, of that organization, delivered an address so pregnant with sound business sense and practical advice that we take pleasure in publishing extracts from it for the benefit of our readers. Mr. Wood traced the history of western retailing from the days of pioneer prosperity and resultant lax business methods, to the present era of uncertain crops, vigorous competition and small profits, when attention to detail, restless industry, habits of economy and methodic store-keeping are essential. The day was gone forever, he said, when the retail merchant could indulge, even to a small extent, in the pioneer habits of drinking, gambling, or idling, and yet prosper. Coming down to the matter-of-fact present, Mr. Wood said:

STORES SHOULD BE MADE MORE ATTRACTIVE

"There is no excuse for idleness on the part of the retailer, no matter where he is located. When not attending to customers he should attend to the store. There is not a store, office or place of business of any kind in our section but what can be made more attractive by a coat of fresh paint and a rearrangement of goods. The victory of Admiral Dewey is ascribed in part as the result of his habit of keeping his men always diligent and so his ships were always in perfect order when there was no expectation of a battle. A store that is kept ready for trade when there is none will be an inviting place for trade when it comes. A man can make good use of all his spare time in fixing up his store so it will be neat in appearance, in arranging goods attractively and in making the place of business in general inviting. A building small and humble in appearance, but neatly painted, and stock of goods attractively arranged, will often invite more trade than a larger building, and larger stock, untidy and ill-kept. But fixing up around one's premises has a still wider service. If any of you business men ever get blue and discouraged, go to work and slick up, making something around your premises neater and more attractive, and you will find that making such improvements as lie within your means will put a different face both upon your feelings and appearance as well as your place of business. There is no trait of character in business that will contribute more to one's success than this spirit of industry.

IMPORTANCE OF PERSONAL ATTENTION TO CUSTOMERS

"Perhaps we are not giving our business as close personal attention as we ought. It does not matter how much help we may have around us, our best success is attained only when we are there ourselves, and come in personal contact with our customers. In ordering goods from a catalogue our customer does not meet the proprietor; if he does not meet the proprietor of our place of business the matter is somewhat equalized, and we are giving him a chance to use his catalogue. The necessity of giving personal attention to our customers is greater now than ever before. Supply house catalogues are in every household. But by talking with them personally we are able to explain many of the false statements found in them and show the cheap quality of their goods, and hold our customers by showing them the real character of the class of goods advertised. By informing ourselves on the general character of supply house methods of doing business and the character of their goods, we shall be enabled to keep a good share of our trade at home. It is necessary that we have not only a knowledge of the details of our own business, but also of the concerns which come in competition with us in order to protect our trade.

NOT TOO LITTLE OR TOO MUCH STOCK

"In order for a business man to be at his best he must have both a hopeful and conservative temperament. The hope must be exercised in order that he may buy sufficiently large for his trade. He cannot sell goods unless he has them, so

the man who wants to do his best must anticipate his trade and be ready for it. On the other hand, he needs to be very conservative, lest he buy too many of certain kinds of goods and overdoes the buying. In other words, the business man must be well balanced, having a due amount of hope and at the same time a due amount of conservatism. The possession of an undue amount of either one of the qualities would readily lead to failure. Again, your model business man must possess and exercise both the qualities of generosity and economy, and at the same time must not be over thrifty or too generous. People do not enjoy trading with an over economical man. I have such a man now in mind, who, although starting in with plenty of capital and a fair stock, does not make his board out of his business, when he ought to be doing a splendid business. On the other hand, a man who is too generous will be led into being too careless of what he has, and will thus invite misfortune. A good business man, while economical and thrifty, will also practice such generosity as will impress people pleasantly, and while husbanding his resources he will be generous where generosity is justified by his ability to bestow it.

KEEP POSTED ON NEW GOODS AND PRICES

"The model business man will always keep himself informed upon new goods coming into the market, the trend of prices and all the changing conditions, so that he is up-to-date and knows as much about business as catalogue houses. It is often the case that people send for goods because they become acquainted with different styles before their home merchants. Now, while it is impossible for little stores to carry as large stock as is advertised in catalogues, yet if one is in close touch with the trade and has a good understanding of goods, he will be enabled to find out what customers need and provide for them. A good business man will keep in close touch with his trade. He will meet his customers whenever they come into his place of business and take some little time to have a chat with them. To make trade loyal one must keep in close touch with it. Keep on such near terms as to know just about the condition, expectations, etc., of the customer. Don't let your customers go out of your store without some manifestation of interest in them.

EXORBITANT PRICES BAD BUSINESS POLICY

"It is possible that the prices of retail dealers are unwarrantably high, and that cause has led many a customer to send away for goods. I have often heard merchants boast that they were not here for their health, indicating thereby that they were receiving pretty stiff prices for goods. It is but just that a fair price should be asked for goods, but the prices which were in vogue in the early days when times were prosperous, and all kinds of goods in demand, and business was active, cannot be held at the present time, neither perhaps would they be just. As much attention should be paid as to what goods should be sold for to the customers as to the price which we pay for the goods. We are very close and careful in our attention to the price which we pay, but do not take as much pains to adjust closely the price we charge for goods. We aim at but one thing—to be sure we get enough. Now, the model business man will keep close watch as to the prices at which he should sell his goods so that no charge of exorbitancy might be truthfully brought against him. Besides there is too much competition in this age to permit the merchant to charge exorbitant prices.

LIFE OUTSIDE THE STORE

"Your model business man is not such only in the store, but in life outside. While he is careful to cultivate hope and conservatism, industry and thrift, economy and generosity and all those qualities which serve to make him a success in his business, he is equally careful to be an influence for good in the social life. There is a tendency, and this is encouraged by the nature of business, for a man to confine himself so closely to business that he is no good outside of his store. We are so intent on business, we are so interested in it, and the nature of it is such as to confine us to it so closely that our lives outside of business do not seem to amount to much, and we do not seem to be of much good apart from our store or office. Now, the aim of our lives should be not only to see how much business we can do or how successfully we can conduct our affairs, but also to see how large a life we can live, how well and successfully business can be carried on and yet how helpful we can be in the world around us. To that end the model business man will think too much of himself to indulge in bad habits, but on the contrary will cultivate the highest character possible, be just as good a citizen and just as helpful in the encouragement of all those enterprises and movements which make for betterment in his fellow men, in school work, in religious work, in the cause of temperance and all the avenues which make for good in the place in which he lives. He will do his part—he will be a factor.

HONORABLE ACTION IN POLITICS

"Neither would your model business man be a nonentity in the political world. Never in the history of the world was there a greater cry for purity and honesty in politics than at the present time. Never was there a greater demand for good business judgment in conducting the affairs of government than at the present, and while a business man is not called upon and cannot afford to go to the length of injuring his business by undue activity in politics, yet he will exercise an influence that will tell for honesty in politics. The success of our republican form of government depends not only upon a universal franchise but upon the intelligent use of the franchise. It has been the criticism that business men have paid too little attention to politics, and that our public officers often owe their election to an irresponsible vote. Your model business man appreciates too highly his citizenship to allow this criticism to be true in his case, and will use every effort to make his influence for truth and right felt. I am conscious that dabbling in politics has been the starting point to ruin of many a business man, but your model business man will not go to that extreme. While he will make the most of his business and build that up as carefully as it is possible in his circumstances, he will also contribute his utmost to the welfare of the world around him. His aim will not be to see how well he can live in a narrow sphere, but how well he can live in all his relations in life, as a man at home, in business, in social and political life. Money of itself does not constitute success, nor always bring happiness."

JOSH BILLINGS' Definition of "A Square Man."

THE SQUARE MAN mezzures the same each way and haint got any winny edges nor cheap lumber in him. He iz free from knots and sap and won't warp. He iz klear stuff, and I don't care what you work him up into he won't swell and he won't shrink. He iz amongst men what good kiln-dried boards are among carpenters; he won't season-crack. It doesn't make any difference which side ov him yu come up to, he iz the same bigness each way, and the only way to get at him ennyhow, iz to face him. He knows he iz square and he never spends any time trying to prove it.



FRANCE



THE TRUE BLUE



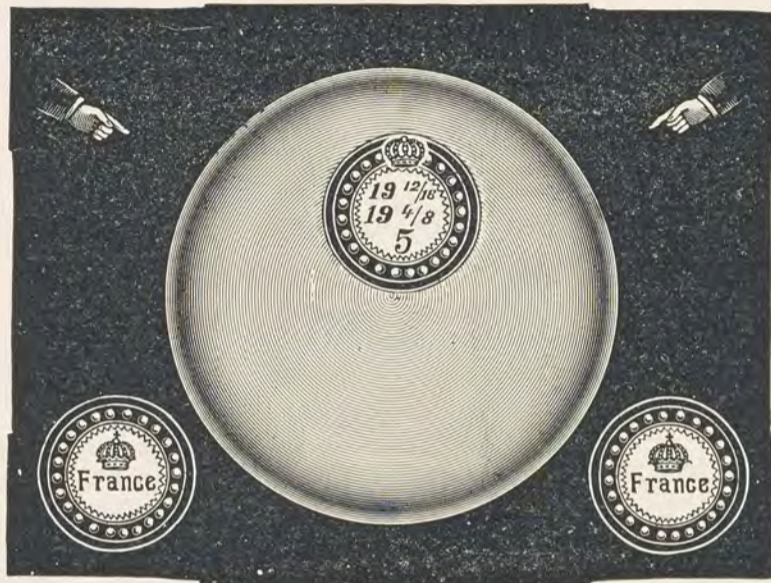
BEADED LABEL
WATCH
GLASSES

THE GENUINE ARE
LABELED



FRANCE

BEWARE OF IMITATIONS.



BEADED LABEL
WATCH
GLASSES

THE GENUINE ARE
LABELED



FRANCE

BEWARE OF IMITATIONS.

ASK YOUR JOBBER FOR THEM.

SUSSFELD, LORSCH & Co.,
21 RUE DE L'ECHIQUEUR, PARIS.

LORSCH BUILDING,
37 & 39 MAIDEN LANE,
NEW YORK.

To Secure a **CONTENTED CUSTOMER**



Sell him a Kremenz One-Piece Collar Button,
for dress shirts, as represented by cut.

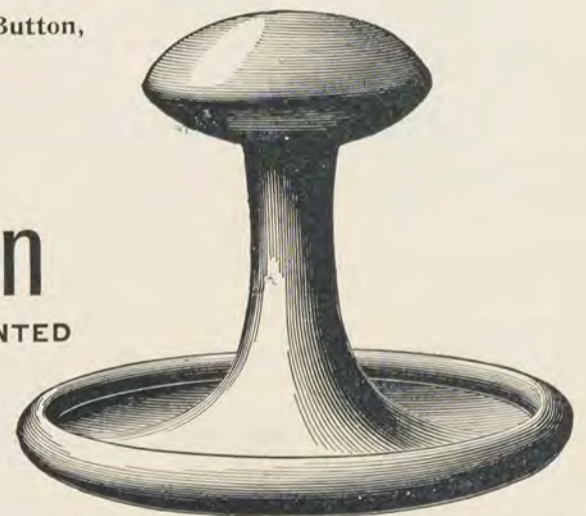
**KREMENTZ ONE-PIECE
DRESS SHIRT Collar Button**

PATENT SUSTAINED BY THE U. S. SUPREME COURT.

PATENTED

Made in 3 sizes, known as 7^L, 8^L AND 9^L

Guarantee: If from ANY CAUSE one should get
damaged, either in the hands of the
DEALER or WEARER, a new button
will be GIVEN IN EXCHANGE.



The Standard American Collar Button.
Extra Long Post. Extra Width of Back.

SOLVES ALL COLLAR BUTTON PROBLEMS.

- 1—One piece.
- 2—Never break.
- 3—Head right shape.

- 4—Post right length.
- 5—Easiest to button.
- 6—Stays buttoned.

- 7—Easiest to unbutton.
- 8—No lever or twist to bother.
- 9—No repairs; customer gets new for old one
without charge in case of accident of any kind.

18 K., 14 K., 10 K. GOLD, STERLING SILVER AND OWN MAKE 14 K. ROLLED-PLATE.

KREMENTZ & Co.,

49 CHESTNUT ST.,
NEWARK, N. J.

Electro-Metallurgy.

VII.

Making New Watch Cases Out of Old Ones.



REGILDING watch cases the idea is, we should not, as a rule, attempt to give them the appearance of new goods, but rather convey the impression of a partially-worn solid gold case. Perhaps, in dealing with gilded watch cases which have a stamp in them giving the exact original quality, it is better to finish with the idea of a new look—a just-out-of-the-factory appearance. In such instances the plan is to strip all the gold from the outside of the case, then hard buff as described in former article, to smooth the surface and take off any worn look, and then regild, working so as to reinforce the places subject to the greatest wear.

Where the inside of a gilded watch case needs but little done to it, one pennyweight to one and one-half pennyweights well put on the outside, and we need have but little fear in warranting it to wear for five years. Some workmen adopt the plan of charging two dollars for the cheapest gilding and then a dollar a year for each subsequent year the case is warranted to wear, the two-dollar gilding being only warranted for one year. Of course it is to be understood that with the one-year gilding but little is done to smooth and finish the case after stripping. The facts are, but little is done except to strip off the old gilding and replace it so as to cover the worn spots.

The Advantages of Using a Dynamo for Gilding

The advantage of using a hand-power dynamo over a primary battery notably asserts itself with a small dynamo. We would not think of a machine giving less than six or eight volts. On the other hand, very few workmen would use a primary battery affording more than two or three volts. Now, by putting in resistance with the dynamos, to cut down the amperage, we get a hard deposit of gold which will wear. In brief, an electro deposit can, by managing the current, be thrown down from the condition of annealed metal to that of hard-rolled or hammered.

In regilding what is known as rolled-plate, the articles should be first stripped and then hard buffed, as it is described in our last preceding article, leaving the surface to be gilded as smooth as possible; and if the workman is an engraver, he can usually, by a few judicious cuts of the graver, give the job a great deal of freshness, making it almost impossible for the ordinary observer to distinguish between the job in hand and a new case. Where a man is getting up such jobs for his own trade, he can, at a slight expense, put on gold enough so that he can conscientiously guarantee the case to wear for five years.

We have previously given some advice as regards the management of the inside of watch cases while being gilded, but it will do no harm to add a few more suggestions. For instance, if a watch case shows no wear on the inside, it is better left alone, except to buff up to a good polish; but if anything has to be done, let it be no more than is absolutely necessary. We do not mean by this, that the workman should adopt the "that-is-good-enough" plan,

because in most instances such remission ends in abominably bad work.

Usually in watch cases which have been in use any length of time, the nail-piece is more or less cut up, from a knife being used in opening. All such marks should be carefully filed off and the surface dressed up with an emery buff.

While speaking of emery buffs, we will mention a style of emery buff we have made and used for a long time with great satisfaction. They are not on the market, but are easily gotten up. Get strips of hard wood—cherry or maple will do—one inch wide, one-fourth inch thick, and nine inches long. Give these strips a coat of thin shellac dissolved in alcohol. After becoming dry, sandpaper the surfaces and paste on two strips of emery paper with bookbinders' paste, composed of equal parts of glue prepared as carpenters use it, and common medium-thick flour paste. These strips of paper of the width of the stick, extend to one end and on opposite sides; the emery paper is of different degrees of fineness, about three numbers apart. Such buffs are useful for dressing up nail-pieces and joints. In all mechanical operations, and particularly in gilding, we should adopt the plan of first doing a job as well as we can, and then exercise our ingenuity to its full capacity to do it quickly.

We have found no rotary scratch brush for finishing gilding equal to the one made of fine steel wire. The wire from which such brushes are made should not exceed $\frac{1}{1000}$ or $\frac{1}{1000}$ of an inch in diameter. The ends of the small wires forming the brush soon get a curl in them, which virtually converts them into loops, when they act as the softest possible burnishers. These brushes are best used with stale ale, the next best substitute being a solution of yellow rosin soap in water. After scratch brushing with the steel brush, the case is ready for polishing, which usually can be done with a simple elk-skin buff until a high polish is obtained.

"Enclosed please find my check for The Keystone for two years. I think it the best trade paper in the whole world as I have taken it from Europe as well as here, and am glad to send you my check for the same. As long as I am in the trade do not stop The Keystone."—R. V. Hurd & Co., 126 West 23rd Street, New York City.

Don't Give Up.

Jonah was an unwilling guest. He wanted to get out. However much he may have liked fish, he did not want it three times a day and all the time. So he kept up a fidget and a struggle and a turning over, and gave the whale no time to assimilate him. The man knew that if he was ever to get out he must be in perpetual motion. We know men who are so lethargic they would have given it up, and lain so quietly that in a few hours they would have gone into flukes and fish-bones, blow-hole and blubber. Now we see men all around us who have been swallowed by monstrous misfortunes. Some of them sit down on a piece of whalebone and give it up. They say: "No use! I will never get back my money or restore my good name or recover my health." They float out to sea and never again are heard of. Others, the moment they go down the throat of some great trouble, begin to plan for egress. They make rapid estimate of the length of the vertebrae, and come to the conclusion how far they are in. They dig up enough spermaceti out of the darkness to make a light, and keep turning this way and that, till the first you know they are out. Determination to get well has much to do with recovered invalidism. Firm will to defeat bankruptcy decides financial deliverance. Never surrender to misfortune or discouragement. You can, if you are spry enough, make it as uncomfortable for the whale as the whale can make it uncomfortable for you. There will be some place where you can brace your feet against his ribs, and some large upper tooth around which you can take hold, and he will soon be as glad to get rid of you for a tenant as you will be glad to get rid of him for a landlord.

—Ex.

Get Your Profits.

Under the caption "What Are Profits?" a writer in the *Trade Magazine* writes a forcible article pointing out the widespread ignorance on the part of tradesmen as to what actually constitutes their percentage of profit.

Do you realize that on 25 per cent. of your goods you are making nothing? That you may be doing what you and the public generally consider a large business and still make no money? Do you buy goods and sell them at the same price? At once you say, "What an absurdity—No!" Grant it, then, that you do not, and then you put, say, 25 per cent. or more profit on the goods. You seem to sell them, and yet, after all, the margin of profit is small. The profit is in that portion which is left, is it not? Yes, did I hear you say? Well, yes is correct, and that's my point.

We often congratulate ourselves on doing so well, and are prompted to congratulate ourselves and say, "Well I certainly have done well on those goods," when in real solid truth you have not your money back that was paid for them. Maybe you are still skeptical in this regard. If you are, after finishing reading this article, take your pad and write down twenty articles and see if it is not true. How much have you that is stuck away, drying out, getting shop-worn, and which, when once grayheaded, will not sell at any price? Here are five rules that have helped me and may help you:

1. Buy sparingly of goods not well known to the consuming public.
2. Buy largely only goods that are always salable.
3. Keep seasonable goods where they can be seen and call attention to them.
4. Goods which are in season only two or three months push towards the front before the time is up—advertise them and get your money back with that 25 per cent. profit.
5. Make it an object to clean up. Sell all. That's your profit.



TRADE-MARK OF O. L. WUERKER.

Use of Trade-Marks for Retailers.

A matter that merits the consideration of the trade is treated in a letter received from O. L. Wuerker, Los Angeles, Cal. Mr. Wuerker writes:

Having been a reader of THE KEYSTONE for the past fifteen years, I feel at liberty, at your request, to suggest something which has not been touched on very extensively in your columns, unless possibly I may have overlooked it—that is, the subject of trade-marks. A neat trade-mark would add tone to a business and be of great benefit in many ways, particularly in advertising. The advantage can readily be seen if one takes up a paper or magazine. A great many good and well-worded advertisements are overlooked; whereas, a cut of some kind, had such been adopted, or some particular style in which the name was always printed, when but glanced at, would identify the advertisement and suggest the business. For example, when a jeweler sees "Father Time," with hour glass in hand and scythe, etc., it is hardly necessary for the name to appear at all, so familiar are we with it; wherever seen it is known as the Elgin trade-mark and pertains to something connected with their business. And when the public is made familiar with your trade-mark they likewise get familiar with your name.

Besides your trade-mark in advertising, where perhaps it is the greatest advantage, you can have it on your stationery, your jewelry boxes, your goods, and it can be utilized to advantage in many ways.

The extensive use of the trade-mark with large concerns is becoming more universal, and can be adopted advantageously by smaller concerns.

724 **Aikin-Lambert Jewelry Co.**

19 Maiden Lane, New York,

ARE FULLY PREPARED TO FILL YOUR ORDERS
FOR

**WATCHES
DIAMONDS
JEWELRY**

Selection packages when requested.

We only ask for a trial.

Novelties in GOLD, SILVER and PLATE.



Can this be Repaired?

Yes.
 ☛ Silverware Repaired and Replated as serviceable as new
 ☛ Toilet and Ornamental Articles Cleaned and Lacquered to prevent tarnish.
 ☛ Bronze Statues, Clocks, Etc., Repaired and Rebronzed.
 ☛ Silver Plating on Mining Plates, Signs, Etc., in all size sheets up to 12 feet by 6 feet.

Sercomb & Sperry Co.

SUCCESSORS TO
PLATING DEPT.
MERIDEN BRITANNIA CO.'S
CHICAGO STORE,

No. 145 State Street,
Chicago.



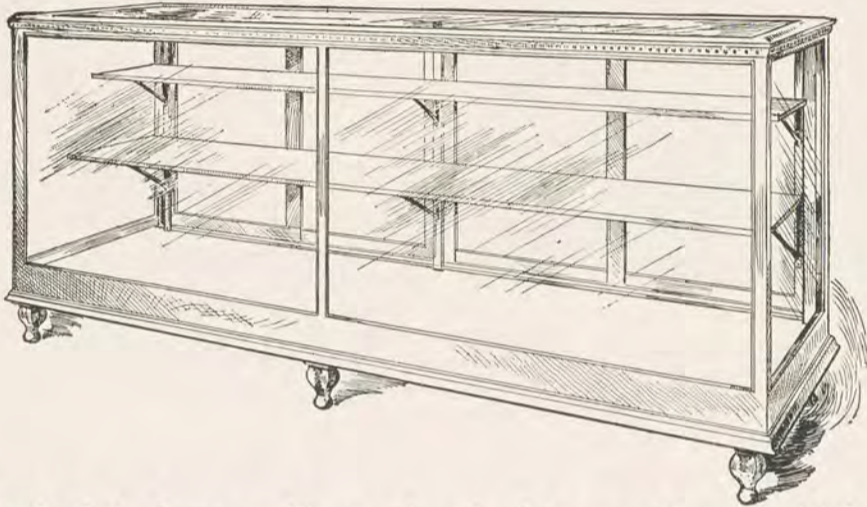
Yes.

WE PLATE ANY ARTICLE you want

in GOLD, SILVER, BRASS, BRONZE, COPPER, NICKEL, OXIDIZED SILVER,
OXIDIZED COPPER, ANTIQUE BRASS, STATUARY BRONZE, AND ALL
OTHER STYLES KNOWN TO THE ART.

WE DUPLICATE ANY FINISH on Builders' Hardware.

A. N. SPERRY, MANAGER



Right from the start the sale of this
Case has been phenomenal.

Jewelers with a keen eye in every case relating to their business, saw at once the beauty, utility and cheapness of our "IDEAL" CASE.

It is made of quarter-sawed oak, or other wood desired, highly polished, beveled plate-glass top, double strength glass front, ends and doors, has two highly polished shelves or same wood as case, supported by Tom's adjustable brackets, metal legs six inches high, and doors run on steel tracks.

Dimensions:—Length as ordered, 28 inches wide, 43 inches high, upper shelf 12 inches wide, lower shelf 16 inches.

The construction of this case is first-class. It has a nicely molded top ornamented with egg and dart.

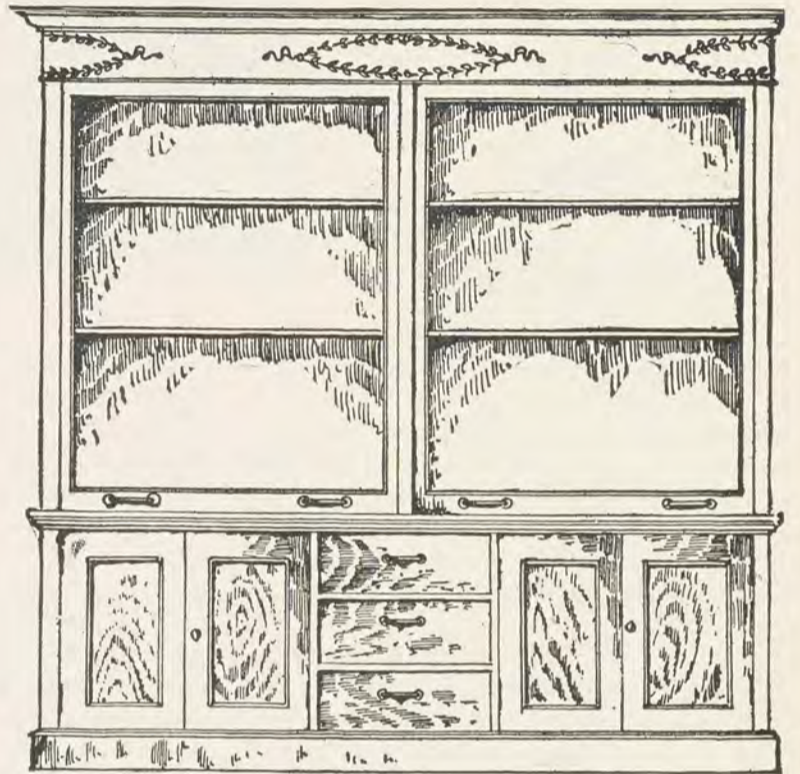
A BEAUTIFUL CASE.

MADE AND SOLD BY

UNION SHOW CASE CO.

FACTORY { 530 South Leavett.
41 Olive Street.

167 Randolph Street, CHICAGO, ILL.



Wall Cases. Solid Quarter-Sawed White Oak. 8 feet long, 8 feet 5 inches high, 1 foot 4 inches deep inside. Doors slide up, fastened to Morton's steel chains and weights. Inside of case and shelves lined with black felt. Made to ship in the knock-down.

Net price, \$46.00. Worth \$64.00.



AND IMPORTERS OF DIAMONDS

Western Headquarters:
103 State Street, Chicago, Ill.

BUFFALO, N. Y.

WE WILL BE IN THE MARKET THE COMING SEASON WITH NEW AND ORIGINAL DESIGNS IN

**RINGS,
PENDANTS and SCARF PINS.**

IN THE FUTURE, AS IN THE PAST, OUR GOODS ARE OFFERED FOR SALE TO THE LEGITIMATE JEWELERS ONLY.

Watchmakers' Tools, and How to Use Them.

CXI.

Highly Polished Gold Settings of Flat Jewels.



THE proper finish for a flat jewel set in a separate collet, or brush, when fitted to such plate, is "in the gray," that is, just as it comes from the Scotch stone or, what is better, a blue stone. We

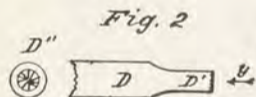
left the gold setting we were making ready to go into the recess in the plate. We show at Fig. 1 the setting we have just made inserted in the plate. As illustrated in the drawing *A* represents a portion of the movement plate, *B* the gold setting, and *C* the jewel. The small arcs shown at *x x x* represent the sinks for screw heads which are usually three in number. There is considerable manual skill required to place such screws properly. It will be seen on referring to the cut at Fig. 1 that about two-thirds of the sink for the head of the screws is in the plate and one-third in the setting.



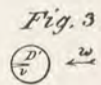
How to Sink for Screw Heads

Simple as this operation is, very few workmen succeed in doing a nice job. The setting as shown in the cut is ready for

the screw sinks. In fitting the setting *B* to the plate *A* the fit should be close enough so that when pressed into place it should hold in position—not requiring much force to press it into place or much to push the setting out. When the setting is in place, with a sharp graver cut out a crescent shaped piece from the setting, as indicated at the dotted arc *z*, Fig. 5. We must next provide a rose drill of the size of the sink for the screw head and the end cut into teeth. We show a side view of such a drill, or countersink, at *D D'*, Fig. 2, with an end view or as if seen in the direction of the arrow *y*, at *D''*.

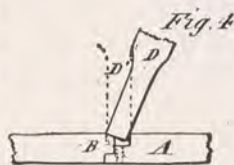


The end of the drill is cut into teeth with a small, three-square file, ground smooth on one side. A little practice will enable one to cut the end into teeth very quickly with no guide but the eye. It is not necessary that the teeth formed should be of even spacing. A good plan for the novice to adopt is to lay out the teeth with a graver. To do this, place the piece of wire cut to the proper length in a pin-vise, and holding the vise in the left hand, with sharp graver make an incision, as shown at *v*, Fig. 3, by setting the point of the graver at the center and pushing it forward in the direction of the arrow *w*. After radial cuts have been made to extend all around the face of the drill the incisions are deepened with the file.



A workman can do no better by his spare time than to make a set of such countersinks varying in size by $\frac{1}{1000}$ ". After such a drill is made and hardened it should be fitted to a "turn top" screw-driver handle. To use such a countersink we insert the toothed end in the sink *x*, and revolve the screw-driver handle between the thumb and finger. There is certain slight, or method of working such a countersink for the purpose in view. This can be understood by saying we do not com-

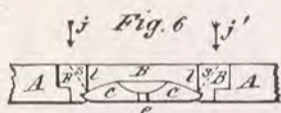
mence by holding the countersink upright, but incline it to one side as shown at Fig. 4, where *A* represents a portion of the plate of a movement and *D* the rose drill. The reason for turning the drill to one side is to give support to the drill while we are starting the cut in the setting of the jewel.



We show at Fig. 5 a plan view of the sink *x*, Fig. 1, magnified somewhat to better convey details. The crescent shaped cut indicated by the dotted arc *z* merely assists as a guide to starting the rose drill to cutting properly. The handle of the rose drill is leaned away in the direction of the dotted line *u*, Fig. 5, when starting, but as soon as the drill is securely entered in the recess, the handle is held upright, as indicated by the dotted outline *D'*, Fig. 4. Rose drills and counter bores with pin centers are frequently used for countersinking such recesses as *x*, but the center pin ruins the thread in the hole for the screw. The recess in the jewel setting should be a mere trifle less in depth than the recess in the plate, in order that the screw will draw the jewel setting down firm to the seat in the plate.

Polishing Gold Jewel Settings

After one screw is in place we can proceed to set the remaining two screws. The setting is now secure in the plate and we are ready to turn out the beveled surface on the inside of the setting. For better explanation we refer to Fig. 6, which is a transverse section of Fig. 1 on the line *p*, seen in the direction of the arrow *o*. The setting *B*, as shown at Fig. 1, presents a



broad flat surface surrounding the jewel, and we have now to turn a bevel surface, as shown at *s*, Figs. 1 and 6. To do this turning, the plate is placed in a universal head and the setting now represented by the full line *l*, Fig. 6 is turned back to the line *s*. This turning is best done by hand, employing an ordinary graver.

Here is a place where manual dexterity will display itself, and no set rules can be given. In this turning we have two points to keep in mind: (*a*) to not turn back as represented by the dotted line *s* so as to reach the recesses *x* for the holding screws; (*b*) not to let the turning loosen the jewel in its setting, because, as the reader will remember, the seat for the jewel at this point was cut to a right angle, and consequently, if cut back, the jewel will be loosened. In conducting this turning, the main portion of the work is done by an ordinary graver; a final cut is, however, made with a highly polished graver, which leaves a mirror polish. The secret of a perfect polish on the bevel surface *s* lies in using a perfectly polished graver and doing the work so quickly that the graver has no chance to get dull.

The polish of the surface *s* can usually be improved, employing a leather point dipped in alcohol and dusted with rouge. The flat surface of the setting opposite the arrows *j j'*, Fig. 6, as the reader will remember, is in the gray. For producing a mirror polish the best tools are two disks of chalcedony, about 2" in diameter. These disks are set in wood blocks, so as to present a flat surface on top. One of the disks is ground to a fine mat surface with emery powder, the grain of

the surface should be like the finest ground glass. The surface of the second disk should be as near an approach to a polish as can be produced with the finest emery. Rubbing the flat face of the setting on the disks will produce a perfect polish. Disks of plate glass can be substituted for chalcedony, but they wear smooth very quickly, and then the surface must be reground. This article closes our essays on setting jewels for repair work.

Opening a New Store.

When a man is making his debut into the business world as the full-fledged storekeeper he should be as careful as the social debutante of the first impression which he makes upon the public. From hearsay we infer that the debutante in society makes strenuous efforts to conceal all defects, brings out good points more tellingly by proper and becoming adornment and in so many words "puts her best foot foremost" in the most engaging manner. By thus impressing people favorably at the beginning of her career, she is able to capture some prize in the market, called the noble ambition of matrimony. The young merchant, then, should model his mercantile venture on somewhat similar lines. He should regard the world as it is, know that it is apt to judge of him entirely by appearances, for no one has a magic wand or sorcerer's art which will enable him to divine intentions which are not put into execution. Customers will expect to see the new store spick and span, and will doubtless exact more perfections in it than they have always obtained in the older, better established firms. They will also be more inclined to look for flaws, magnify mistakes, exaggerate the importance of unfortunate errors and in general assume a more critical attitude toward the young or new aspirant to mercantile honors. The public, en masse, is not given to great leniency, consideration or unselfishness, as a rule, hence it will be disposed to doubt the merchant's ability as a business man till it has tried his mettle. If the merchant is young, people will say that he is inexperienced; if he is old they will think he has made a failure somewhere else and is trying to recoup his fortunes at the expense of a long suffering public. Above all, then, be as circumspect and careful in every way at all times, and particularly when opening a new store.

Took the Conceit Out of Him.

A drummer tells a pretty good story concerning a brother drummer who in his early traveling days was overburdened with a deplorable amount of self-importance. He was one of those young men who entertain a fixed idea that the entire business community has its eye riveted admiringly on them. They are supremely convinced that the business world could not exist very long without their assistance, and that the establishment which they honor by their services is so widely known and appreciated that a general feeling of intense interest is created whenever mention is made of anything or anybody connected therewith. There are plenty of these youths around to-day, but they get the conceit taken out of them sooner or later.

This particular drummer had occasion one day to call on a large house, the proprietor of which was an exceedingly busy man, a man always rushed with work and who had very little time to spare to callers. At the moment the drummer made his call the merchant was busily dictating a letter, and his visitor advanced to the desk and laid down his business card. The merchant continued his dictation without looking up. The drummer was a little disconcerted, and waited about two minutes to receive the hearty and effusive welcome which he was sure awaited him. Still the merchant went on with his work. Presently the drummer again assumed the initiative. In a pompous voice he remarked:

"Ahem! My name is Brown, and I represent the house of Smith & Smith, of Chicago."

"Ah!" said the merchant, "take a chair," and he went on with his dictation.

"Excuse me," said the drummer, now thoroughly on his dignity, "I am from Smith & Smith, the great jobbers, ye know."

"Indeed!" said the merchant, without looking at him, "take two chairs."

That settled the drummer, and he walked out.

"Please find enclosed my dollar for *The Keystone*; you are welcome to it, as I receive more information out of it than any other trade paper published, and I take three. *The Keystone* is the best."—G. J. Daum, jeweler, Augusta, Kentucky.

An Early PEACE or Continued WAR will Promote BUSINESS



Are always of

**STANDARD QUALITY
NEWEST STYLES
BEST FINISH**



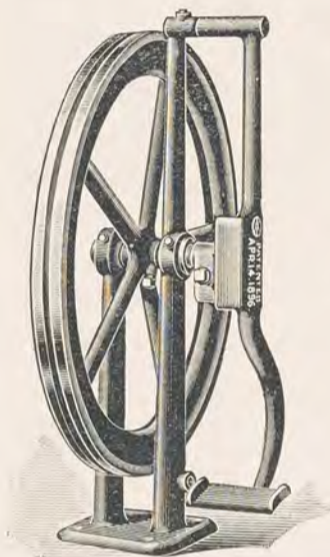
They will always sell when anything will, and cost no more than those of doubtful reputation.

**OLDEST
RING MAKERS IN
AMERICA**

Don't wait for our travelers, but send direct to

M. B. BRYANT & CO.

**10
Maiden Lane
New York**



**BALL-BEARING
FOOT-WHEELS**

Would you run a "bike" without ball bearings? If not, why do you use old style, plain foot-wheel, when our **No. 3 Ball-Bearing Foot-Wheels** cost but little more.

Our Latest Catalogue shows our full line, and is sent free to any address.

Manufactured only by

W. W. OLIVER,
1490-1492 Niagara St., BUFFALO, N. Y.



RINGS
STAMPED
W. L. & CO.

Look Like Gold,
Sound Like Gold,
Wear Like Gold,
and Stand a Gold Acid Test.
Good as Gold.

- COLLAR BUTTONS stamped W. L. & Co., 1,
Retail 25 Cents, Warranted 5 Years.
- COLLAR BUTTONS stamped W. L. & Co., 2,
Retail 15 Cents, Warranted 2 Years.
- COLLAR BUTTONS stamped W. L. & Co., 3,
Retail 10 Cents, Warranted 1 Year.

Sample card of twenty-four styles of each quality with numbers, sent on application, so you can order what you desire.

WM. LOEB & CO.

PROVIDENCE, R. I.

Makers of

Rings and Collar Buttons.

To the Jobbing Trade Only

THE BEST IS THE CHEAPEST.

Buy the **Genuine Gold Tipped Waltham Resilient Mainsprings.** Every Spring is guaranteed. The tips and braces are made of a composition metal that will not rust and which is more tenacious than soft steel.

Sole Agents, **HENRY ZIMMERN & CO.,**

Importers of Watchmakers' and Jewelers' Supplies.

47 Maiden Lane, NEW YORK.

Sole Agents for the Celebrated

U. S. American Mainsprings and Ajax Insulators.



We have the sole agency for the celebrated

**Fleming's
Patent
Corrugated
Case Springs**

Made of the best steel and easy to fit. A trial will convince you.

The Advertiser



WE all dread bodily paralysis, and would do anything to avoid it, yet many drift into a business paralysis without an advertising effort to prevent it. There are hundreds of non-advertising jewelers and opticians who contemplate doing some advertising, but who daily procrastinate, unable to decide upon style, method or medium.

In order to do anything in this life that is worth doing, one must not stand shivering on the bank, thinking of the cold and danger, but jump in and scramble through the best he can. It won't do to be perpetually calculating and adjusting nice chances in advertising; a man waits, and doubts, and hesitates, until one day his friends find him ready for the red flag or his black coat.

A man should advertise and study, and study and advertise. Hard work is the secret of successful advertising that many never learn. Mental labor is the genius that produces business-bringing ads., and the success of one advertiser over another, whether in local or national affairs, lies in his keeping ahead in his plans and ideas. Society, business, all life is composed of two classes—leaders and followers—those who go ahead and those who fall in line. Great successes in all walks are only made by striking out in advance of others, and those who head the procession are usually the hard workers; those who copy and multiply must be satisfied with the mediocre.

A common experience among local advertisers is the writing of a few good ads., and the utter worthlessness of all that follow; like the charge of a cannon, the first shots burn up the powder and the cannon becomes useless until reloaded. The first few shots of some advertisers are the results of a little feeding; the shots that follow come from an exhausted mind. So, if an advertiser would write, and continue to write, trade-winning ads. he must supply his mind with a full and generous diet of all sorts of literature pertaining to his business and the science of advertising.

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The mainspring of all kinds of advertising should be persistency. Do not expect to make a "hit" at once when you commence to advertise. You cannot do it. Some things may bring you more returns than others. The main feature of all successful advertising, however, is to outlast the first impression. Persistency is the high road to success. There is no other one thing which causes so many advertising failures as this lack of persistency among advertisers. They lack the nerve to fight long and hard. While they will expend a good deal of cash and energy in making a single plunge, they grow tired and weary if called upon to expend the same amount through a campaign of twelve months. The road to advertising success is an uphill road all the way. Do not try to spurt or you will fall exhausted. For a little way it goes easy, and you get over the ground fast, but the goal seems all the farther away when the cash and nervous energy in that spurt are both spent. There are but forty per cent. of advertisers who make their advertising pay, half of these fail because they have never learned that persistency in advertising is one vital necessity.

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The one thing, one idea ad., has been so persistently preached to retailers that many have imbibed the mistaken idea that they cannot advantageously mention more than one article in an ad. and make it effective.

An admirable illustration of the successful combination ad. is shown in that of McAllister & Co. In the original the matter is inclosed with a single six-point border; the subjects divided by a light rule. The general appearance of the ad. may be improved as shown here. By running a double line of border across top and three lines across bottom, we may use a single line of the same border to more conspicuously divide the subjects and give the whole an evenly-balanced appearance.

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Clark Bros., St. Cloud, Minn., jewelers and opticians, say: "We are of the opinion that jewelers, as a rule, do not advertise enough, and when they do advertise fail to give the prominence to the repairing department which it should have, constituting, as it does, a good proportion of their net profits. Another idea we have arrived at is that short items

placed in the local columns of the daily or weekly paper are read ten times as much as are the usual display ads."

There always has been, and probably always will be, a diversity of opinion regarding the respective merits of local and display newspaper advertising among those who have not gone deeply into the subject.

If the mere forcing one's self and business upon the public, regardless of time, place or conditions, were the sole aim and purpose of all advertising, the decision might be given in favor of the locals; but this is not the purpose for which the merchant spends his hard-earned dollars. The ultimate end of all advertising is the sale of goods.

The drummer who comes into your store, approaches your counter, forces his attention upon you while you are on the verge of completing a sale, and insists on immediately showing you "through his line" will never miss a train because of the length of your invoice. In order to sell goods, whether through personal solicitation or newspaper advertising, those to whom you wish to sell must be approached in a proper manner, at timely and opportune moments. There is nothing more annoying to a person than to pick up a paper with a desire to get the gist of the local news quickly and to run into an advertising local every few inches. The few who, perhaps, are not annoyed are those who have learned to "skim"—can tell paid locals at a glance, and never read far enough to discover whose they are. Concede that these locals attract attention and are read; under these conditions they cannot possibly attract favorable attention. The better class of town and city papers will no longer intersperse paid locals with news items at any price, simply because their readers will no longer tolerate it. In smaller cities, where newspapers allow it, price or announcement locals can very often be used to advantage, but even here we should advise the use of black-face type. Let readers know at a glance that it is an advertisement; that you are not trying to deceive them into reading your ad. by placing it where it doesn't belong.

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General optical advertising should be educational in its purposes. The old tallow candle has been superseded by modern methods of illumination; the ancient horn-rimmed spectacles have been replaced by the light, yet durable, modern eye-glass; and the methods of spectacle-fitting have, in a measure, been changed by the advent of the skilled refractionist; but a campaign of education is still necessary to convince many people, especially among the rural element, that the place to buy "speks" is not across counter in a junk shop, in the corner grocery, or from the country peddler or street fakir.

The optician may advantageously talk, in his advertising, of the eye, its care, its defects and the results of neglect; of glass, glass-making and glass-grinding; of spectacles and their manufacture; of lenses and lens-making; of refracting, and the benefits and protection afforded by properly adjusted glasses. Talk of any one of these things appertaining to your business, and you talk of something interesting to almost every reader, for not one in five hundred know aught of these things. This is the sort of optical advertising that is sure to win, perhaps in the present, but surely in the future.

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Make your advertising timely, and be timely in your preparation. Fairs are on this month in many sections. Get your booklets, circulars and novelties ready, and above all prepare for proper distribution, for much money is wasted in these schemes outside of newspapers because of lack of attention to this one thing. In the cities, and smaller towns as well, opticians should begin to trim their newspaper advertising for the opening of schools. Pound away continuously with ads. similar to the ones below, and, if the returns are not immediate, you won't be forgotten when the child's first complaint about its eyes reaches the ears of the parents.



SCHOOL COMMENCES

soon. That means constant application for some time. Have any of your children complained about their eyes? If so, bring them to us and find out why they complain.

A little care may prevent them from wearing glasses all their lives—may prevent a serious breakdown. It costs nothing to have your children's eyes examined.

Little Eye-Ills Grow to Big Ones.



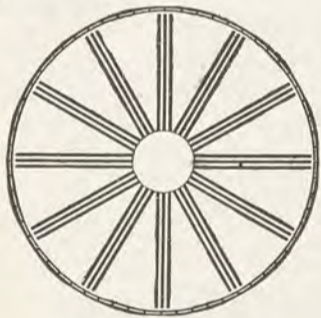
A PARENTAL DUTY.

It is the duty of all parents to know whether the eyesight of their children is perfect or defective. One child out of every three has imperfect vision. These children are at a disadvantage, and cannot be expected to progress with the rest unless the defect is corrected and relieved by proper glasses. Many hereditary eye defects may be overcome in children if taken in time. We make friends with the little ones.

Consultation and Advice Free.

Their Jewelry Would Equip an Army.

It costs \$70,000 to equip a regiment. It is estimated that thirteen women selected at random from the ranks of New York society could easily furnish, in case of necessity, from their jewelry alone, enough to completely equip fifty-two regiments of soldiers, or twelve more regiments than there are in the regular army of the United States, cavalry, artillery and infantry. Mrs. William Astor's jewels are said to be worth \$340,000; Mrs. Bradley-Martin's, \$500,000; Mrs. George Gould's, \$482,000; Mrs. Luther Kountze's, \$300,000; Mrs. Ogden Mills's, \$200,000; Mrs. Oliver H. P. Belmont's, \$500,000; Mrs. Frederick Vanderbilt's, \$300,000; Mrs. William C. Whitney's, \$160,000; Mrs. Harry Whitney's, \$200,000; Mrs. Henry Sloane's, \$220,000; Mrs. Frederick Gebhardt's, \$167,000. It is difficult to estimate the resources of a country where the jewelry of thirteen women, alone, would amount to \$3,369,000.



CAN YOU SEE THESE LINES WITH EQUAL DISTINCTNESS?

Test Each Eye

Separately on the Dial. You may learn that you have been seeing with one eye only. This is productive of Eye and Headaches. Properly fitted Glasses, to correct this difference, can be had of us.

EXAMINATION FREE.

Bargains in Cameras.

We have a large line of slightly worn, second-hand Cameras which we are offering at very low figures. A good opportunity to get a "vacation" Camera. The latest productions in the Camera "art" are the

FOLDING POCKET KODAK, \$10.00.
FOLDING GEM POCO, 4 x 5, \$7.00.

F. W. McAllister & Co.,
OPTICIANS,
No. 3 N. Charles Street.

728



SHIELD B



No. 139



No. 129 a



No. 151



No. 154



No. 153



No. 108



No. 144



SHIELD B

ESTABLISHED 1832

KETCHAM & McDOUGALL
MANUFACTURERS

GOLD & STERLING SILVER THIMBLES
AUTOMATIC EYE-GLASS HOLDERS

37 AND 39 MAIDEN LANE, N. Y.

SEND FOR CATALOGUE "E"



No. 112



No. 126



No. 136 Fg



No. 143



No. 136



No. 140



No. 149



No. 29.
Bar Chime.

Hall Clocks

SOLE AGENTS TO THE TRADE FOR

J. J. ELLIOTT,
LONDON.

CELEBRATED CHIME MOVEMENTS.

TRAVELING CLOCKS,
GILT REGULATORS,
CLOCK SETS,
BRONZES, VASES, Etc., Etc.

New importations now arriving.

HARRIS & HARRINGTON,

32 & 34 Vesey St., NEW YORK.

One block from Astor House.

The Peoria Horological School

1426 Main Street, cor. Elizabeth,
PEORIA, ILL.

This School has a thoroughly practical man at its head.

SEND FOR CATALOGUE.

In addressing don't omit STREET or NUMBER.



Initial Letters

Two sizes, complete.

Price, per set of 26 Letters, \$6.00 per set.

A full line of Border, Tail and Head Pieces, etc., in the same design
Full descriptive circular sent on application.

DUNCAN & CO., Electrotypers,
621 Commerce St., Philadelphia.

Half-Tone Electrotyping a Specialty.

QUEEN CITY WATCH CASE MFG. CO.

C. A. REMME, MANAGER.

Makers of

HIGH-GRADE

GOLD and SILVER
WATCH CASES.

Special Cases to Order.

Altering, Changing and Repairing.
Cash for Old Gold.

Send for Catalogue.

Special Attention to Plating.

S. E. Cor. Fifth and Elm Streets,

LION BUILDING,

CINCINNATI, OHIO.



LION BUILDING.

HEADQUARTERS FOR VISITING G. A. R. JEWELERS.

DORST & Co.

JACOB DORST, Manager.

Manufacturers of

Diamond Mountings,
Medals, Badges, Class Pins,
Masonic Jewels, Rings, etc.

We make a specialty of

All Kinds of Repairing and
Special Ordered Work.

SEND FOR CATALOGUE.

S. E. Cor. Fifth and Elm Streets,
LION BUILDING,

CINCINNATI, OHIO.

Workshop Notes.

Subscribers wishing inquiries answered in this department must send name and address—not for publication, but as an evidence of good faith. No attention will be paid to anonymous communications. Questions will be answered in the order in which they are received.

"Faded Bronze."—(1) *Please give best recipe for cleaning and restoring bright color to faded bronze?*—You do not say what kind of bronze. The word bronze admits of a wide meaning. Strictly speaking, bronze is an alloy of tin and copper, and when we speak of bronze figures we refer to castings made in the above alloy, which are usually treated to give them a dark brown cast, with lines and markings of green. Again, we have what is termed bronzed articles, like gas fixtures, and is it to such as these which you refer? Gas fixtures are usually made up of a combination of polished and lacquered brass, and parts finished with so-called bronze powders mixed with white hard varnish, and sold under the name of gold paint. Finishing gas fixtures is a trade which demands a good deal of skill and experience, especially brass parts which are lacquered. To deal briefly with the finish of such articles we would say the brass is first cleaned and polished to a mirror polish, and then coated with lacquer made by dissolving one-quarter pound of good shellac in a pint of alcohol—the cheap wood alcohol answering quite as well as the more expensive article from vinous fermentation. To give different colors the lacquer is colored with gamboge, cape aloes or dragon's blood; the first two giving a golden, and the latter a red tint to the brass surface. The entire process of lacquering can be condensed to saying: First polish the brass to a mirror polish, then varnish it with the lacquer, staining it to represent pale gold, old gold or red gold by means of the ingredients named above. The article to be lacquered is heated to about 200° F., and the lacquer applied with a camel's hair brush of a size suitable to the work. Few people achieve satisfactory results in relacquering, and as a rule it is safer to try the gold paint plan. Where one desires to try preparing their own bronze colors we would say that collodion lacquer can be mixed with any of the dry bronze powders and applied with a brush. Such bronze powders come in a number of colors as, say, silver, gold, copper, red, green and a great variety of intermediate shades, and when mixed with collodion lacquer form the best of so-called metallic paints.

(2) *The best ideas on polishing brass. I do not like to put brass objects on my lathe, as it destroys the buffs?*—In repolishing lacquered brass articles the first thing to do is to remove the old lacquer, which can be done with a hot solution of borax in water. A solution of cyanide of potassium in water will remove stains from the brass. The polish can be restored by rubbing with rags dampened with a little rancid olive oil and dusted with rotten stone. The reason for using rancid olive oil is that it can be washed away more readily than kerosene and other oils. After the rotten-stone, polish with rouge and a rag moistened with alcohol. Perfectly polished brass, free from any smear, is ready for lacquering, which requires a certain manual dexterity to apply, and the article heated as above described.

"Rolled Plate."—(1) *How is rolled plating done?*—The original process was to join three plates of metal, two of gold and one of brass, by sweating, and then rolling out the combined sheet. To deal with the subject more in detail: Suppose we prepare a plate of brass of such alloy as to closely resemble fourteen karat gold in color and texture. Such plate is made smooth and chemically clean, that is, free of all dirt, oxide or finger stains. We will further suppose this plate is $\frac{1}{4}$ " thick. We next prepare two sheets of fourteen karat gold of the same size, but one of these sheets is $\frac{1}{4}$ " thick and the other $\frac{1}{8}$ ". These gold plates are cleaned with equal care and bound with binding wire on each side of the brass plate. The combined plates are now placed in a muffle and "sweated," that is, heated until the three plates partially fuse and perfectly unite, forming what is practically a solid plate or ingot with gold outer surfaces. This composite plate is next rolled out thin, the ratio of the metals being maintained, that is, the side of the sheet which had a gold plate fused fast $\frac{1}{8}$ " will still have fourteen karat gold on the surface one-eighth the thickness of the brass. The opposite side will have gold one-sixteenth the thickness of the brass. In later years since electro-gilding has been brought to its present state of efficiency, a similar result is obtained by heavily gilding the surface of a sheet of gold-colored brass, and then passing the sheet through between polished steel rolls. Of course the coating of gold is much thinner, but the operation of rolling smoothes and hardens the gold deposit. Goods manufactured from such stock are often placed on the market as "rolled plate," and inferior goods as "rolled gold."

(2) *In putting a "Rugby" (Waterbury) watch in heat, should the pin in the arm of balance, sink in staff and center of escape-wheel be in a straight line?*—This watch has a duplex escapement, and like all escapements of this type should be set so that the least possible arc of vibration of the balance will unlock the escapement and set it in action. Usually, the parts set as you state will effect this result, but often modifications in construction will vary from the rule, but the rule we give is infallible. It may require a little feeling around for this shortest arc, but once arrived at we can then decide on fixed points as guides.

(3) *Why, in working a gold bath with a copper anode, does the anode become coated with Roman gold and the bath stop working, but will work again as soon as the gold is all removed from copper anode?*—We can hardly positively tell why such action takes place without seeing your plating outfit. The undoubted cause is local electrical action caused (probably) by insufficient current from the

battery you use. If you employ the proper quantity of electric current such result as you describe could not occur, as it indicates a reversal in the direction of the current, and the copper anode really becomes temporarily the cathode.

(4) *What is the best book to begin the study of optics at the very beginning?*—"The Optician's Manual," published and for sale at this office. Price, \$2.00.

"Blind Man's Watch."—(1) *Where can I get watches blind people can use?*—The most perfect watches for the blind are repeating watches—they are now made to strike hours and minutes, but are, of course, expensive. The usual plan followed by blind persons is to have a hunting watch with no glass over the dial. Such a watch, with good strong hands and a strong friction on the cannon-pinion, enables a blind man to feel the hours and minutes very readily.

(2) *I have a bottle of nickel-plating solution to use without a battery. Please tell me how to plate without a battery?*—We never saw any nickel-plating done without an electric current that was of any practical value, and do not think it can be done. If you wish to do nickel-plating, learn to do it with an electric current from some source—a dynamo being the best.

(3) *Please give me some instructions about hard soldering. I have "N" low karat solder, and use a $\frac{3}{8}$ " alcohol lamp, and when I blow the flame to the solder it melts and runs into a ball, but does not flow when I get it red hot. What is to be done?*—You cannot make solder flow on a surface which is not at a temperature above the melting point of the solder. Melted solder is not going to flow into a crevice except such crevice is heated to a higher temperature than the fusing point of the solder. In illustration, place a small bit of hard solder on a flat plate of brass and apply a little borax paste to the brass plate and also to the bit of solder. Now heat up the plate and solder, first the solder will melt into a little bead, continue the heat until the brass gets hot enough to melt the solder and the solder will flatten out on the brass. Here an experiment can be made of inestimable value to the jeweler. Direct the flame of the blowpipe a little to one side of the little puddle of melted solder, and you can, by heating the brass draw the solder to the hot spot. *Fused solder flows to the point of highest temperature.*

"Sun Time."—(1) *Can you tell me in what year Hamilton watch No. 6471 was made?*—We can not. Write to the office of the Company.

(2) *What do you call the long, tight threaded screws used in the balance of most adjusted movements?*—There are four such screws, called by adjusters "quarter screws." The two placed at the ends of the arms are known as the time screws. The quarter screws placed in the center of the segments of the rim are used to throw the balance slightly out of poise for position adjustments. Many adjusters object to this practice, holding that a properly adjusted balance should be perfectly poised in all positions.

(3) *Why are they not used in all adjusted movements? Do some companies object to their use?*—Answered above.

(4) *Do you think it advisable to wind a watch mornings instead of evenings, and do some railroad companies require their men to wind their watches mornings?*—The object in winding watches mornings is to ensure the winding at regular hours. Most men are quite punctual as to the time they get up, but are irregular as to the hour they go to bed. We believe some railroad companies require, or rather instruct, their operatives to wind their watches mornings.

(5) *Which is best for a regulator, a gridiron pendulum or a wood rod and zinc bob?*—A gridiron pendulum, if well and correctly made, ranks next to a mercurial ball for regulators. A zinc bob is sometimes used with a steel rod for temperature compensations for pendulums of regulators. The chief source of error with wood pendulum rods is hygrometric, that is, moisture in the air. To prevent such action it is usual to thoroughly paint or varnish the rod, but such protection at best is very imperfect. The present cost of mercury is such that a good compensating pendulum can be made for ten dollars.

(6) *Is it possible to pivot the balance of an adjusted movement and not in any way interfere with the adjustment?*—Yes, it is possible, but not probable. A pivoted job, if well done, would only interfere with the poise of a balance. Of course, if the balance was thrown out of poise by the quarter screws for position adjustments, pivoting might put out such adjustments, but no more than would follow putting in a new staff. These are points urged by adjusters who do not believe in throwing a balance out of poise in adjusting it. It is the proper thing to do after pivoting to test a balance for poise.

(7) *What American watch companies have manufactured cylinder watches?*—No cylinder watches were ever made in the United States. Watches with cylinder escapements have been manufactured abroad and engraved with names of supposed American companies upon them.

"Telephone."—(1) *Is the current on long-distance telephone lines sufficient to magnetize pieces of steel if the proper wire was wrapped about them?*—The electric current in a telephone line wire is so feeble in quantity as to have practically no magnetizing effect. The effect of the line current of a telephone on the permanent magnets in the receiver is only to disturb the "balance of power," so to speak: Suppose in illustration, we have a permanent bar magnet which, at the distance of $\frac{1}{16}$ " from one of the poles, would exert on an armature the force, say, of twenty-five grains; now by wrapping such permanent magnets with fine magnet wire, we would have to send but a very weak

current through such wire to influence the pull of the permanent magnet from a pull of, say, twenty-five to twenty-five and a half grains, or reducing the pull to twenty-four and a half grains. It is the fluctuations of the electric current which convey sound vibrations. It is to be kept in mind that the electric current in telephone line wire is an alternating one, and in one direction enhances the strength of the magnet and in the opposite direction detracts from it.

(2) *Is there anything that electricity or magnetism will not penetrate, as, for instance, a thin sheet of some substance which can be placed between the magnet and the armature which would prevent the latter being attracted?*—This is an old problem, and has been the idea on which many inventors have based hopes for a perpetual motion. Strictly speaking, there is no substance which the lines of magnetic force will not penetrate. Many people confound electricity and magnetism; these forces are distinct, although they are each capable, under the proper conditions, of producing the other, that is, we can, by means of mechanical force, cause magnetism to induce an electric current, and again, we can cause an electric current to induce magnetism. The introduction of a thin plate of soft iron between a magnet and its armature will, to a certain extent, cut the lines of magnetic force and destroy the pull of the magnet, but there are both theoretical and mechanical difficulties which render the phenomenon abortive as far as realizing any dynamic power is concerned.

(3) *If a telephone should get injured by lightning, where should I look for the injured part?*—This would be hard to tell, but probably in some of the fine wire helices the insulation would be cut, or the wire fused. The trouble can usually be located by the means of a magneto.

(4) *What would be the effect if the diaphragm of a telephone was made much larger?*—If the diaphragm was enlarged, other parts would have to be enlarged proportionately. Experiment and experience have settled the best sizes and proportions.

(5) *In winding electro-magnets why is it that such small wire is used? Is it meant by "resistance" that if a larger wire was used that a low or weak current would be lost in it or fail to get through the coils? And why is such coil, when wound for a telephone receiver, wound on a wooden spool instead of a metal one? It is said that the silk covering or insulation on such wire is to force the current to follow the wire. Now, as I understand it, all such winding is to accumulate electricity at that point, and thus influence the poles or parts about which it is wound, but I am puzzled about the terms "resistance," "forced to follow the wire," and current escaping or oozing from the whole mass of wire at the same time. Please explain in full.*—We presume you mean in winding electro-magnets for telephones that fine wire is used, although you make no exceptions. Now the power of an electro-magnet depends on the "quantity" of electricity which is sent around it, and electricians express such quantity in "amperes." Suppose, in illustration, that we take a bar of soft iron, say $\frac{1}{2}$ " diameter and 4" long; we next wind a piece of copper wire $\frac{1}{16}$ " in diameter on a piece of round wood $\frac{3}{8}$ " in diameter until we get close coils of such copper wire 3" long. We remove the round piece of wood and stretch out the coils until they are 4" long, and each coil separate from its fellow. Coils of copper wire so separated would be insulated by the air as effectually as if the wire was wound with silk or cotton, and an electric current sent through would have to follow the wire around the coils. Winding the copper wire with silk or cotton would only permit us to bring the coils closer together without contact. Such coarse large wire offers but very little resistance, but as the wire is reduced in size the electric pressure has to be increased to force the current forward. Such electric force or pressure is called voltage. Now, there is really no such thing as a non-conductor of electricity, even silk, shellac or glass will conduct electricity to some extent, and the greater the voltage the more substances of high resistance will conduct electricity. Electricity of high pressure accounts for what you term electricity oozing out. The coarse copper wire spiral and a current of very low voltage, electrical pressure—called also electro-motive force and abbreviated E. M. F.—would send a great number of amperes of electric current through a wire of such low resistance. In further explanation, suppose we should send a current of ten amperes through the coil, and we had twenty-five coils of wire, we would have exerted around our magnet the force of 250 "ampere turns," which would have the same magnetizing effect as 250 turns of fine wire which had one ampere of current passing through it, or 1000 turns of extremely fine wire with one-tenth of an ampere passing through it. Another fact which we should bear in mind is, the electrical pressure or voltage has no effect on the magnetizing influence; it is the ampere turns which does the work. Hence, it can be seen that by means of high electrical pressure (E. M. F.), we can force a current of small quantity (amperage) through a fine wire which, from the great number of coils, produces magnetizing influence sufficient to work a telephone. "Resistance," as applied in electricity, retains the strict sense of the word, and means the force offered to resist the passage of an electric current; the base of measure of resistance is the ohm. A good idea of an ohm resistance is got by saying it nearly equals that of a copper wire of ninety-five per cent. conductivity, 10' long, $\frac{1}{100}$ " diameter, and weighing two grains to the foot; or a column of mercury 1 m. m. square in section and 103 centimeters in length. By being forced to follow the wire is meant that the coils of wire are separated by space or insulation from actual contact, and has no other path of low resistance open to it except to follow the wire. In currents of low voltage (E. M. F.), wire contacts must be perfect to ensure conductivity, but as the voltage or electrical pressure is increased, imperfect contacts will be passed, or even small intervals jumped showing a spark. To fully answer your query would occupy every page of an entire issue of THE KEYSTONE.

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Detroit, Mich., June 28, 1898.

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First, Catch Your Hare.

BY JOHN TWEEZER.

One Mrs. Hannah Glasse, who lived in England in the first half of the last century, published a book, in 1747, entitled "The Art of Cookery." The book had enormous vogue, and every British kitchen that made any pretense to exploit skill in cooking "went by Mrs. Glasse." But the present generation, whose palate is tickled with more delicate culinary compounds than those which pleased the heavy taste of 1747, still is debtor to good Mrs. Glasse for one recipe; for that recipe embodied a direction which has since been crystalized into a never-dying proverb. The recipe was entitled, "How to Cook a Hare"; and the first four words following the title constitute the famous proverb. The recipe began, "First, catch your hare."

First, catch your hare! It is the warning voice of Experience spoken to the ear of Overhopefulness—the cautioning counsel of Sobersides to Enthusiasm. It says, in effect, "Before you dispose of a thing, make sure that you possess it." What a volume of wisdom can be condensed into four little words.

There is an Oriental story which relates how a poor young man went to a well in the desert to fill a jar with water. After filling it he sat on the well-kerb and mused: "I will carry this water to the town, distant ten leagues, and sell it for a penny; with the penny I will buy another jar, return to the well and fill the two jars; then after a number of comings and goings I will have sold enough water to enable me to buy an ass; I will fetch and carry with it, and soon be able to buy two asses; then will set up a little shop; then a bazaar; then will build a palace. Then I will go to the proud sheik and ask for the hand of his daughter; and if he refuse I will kick him"—but, unfortunately he suited the action to the word, and his jar stood in his way. The kick ended his dream of prosperity—for the jar lay in pieces at his feet, and the water sunk into the sand. "First, catch your hare."

Revery, day-dreaming, is a delightful occupation, but it is rarely profitable. To lean back in one's chair and fix one's eyes blankly on a passing cloud, or a gas fixture, and plan to spend a thousand or a million dollars, is pleasant business for the imagination; but it doesn't often hasten the accumulation of the thousand or the million. To plan what one would do when *he* is the owner of the business instead of being only a small-salaried clerk, or to lay out a programme of bliss when the unattainable Miss Verryrich says "Yes", or to project a future in which the stammering ignoramus "the applause of listening senators would command", is very pleasant entertainment, but it isn't the *kind* of thinking which brings results. *Dreaming* is not *planning*. The jar of water is upset in the first waking to the hard realities. The hare jumps through the hedge, and goes uncooked because you have not caught him. He is in no danger while you only *dream* of stewed hare.

I admit there is something to be said on the other side. That man is to be envied who *mentally* feeds on the uncaught and the uncooked hare; for such a person is blessed with one of the best gifts that has fallen to the select of heaven—the gift of a satisfying imagination. Tom Hood, racked with pain and miserably poor, declared that he had greater pleasure in the *fancied* spending of the Earl of Derby's money than "that

rich walrus" had in the *actual* spending. But, after all, this is a practical world we are living in, and the rational man is bound to recognize the dull realities, the hard necessities, of his environment; and the dreamer each day weakens the chances of attaining his dreams, because he is constantly receding further into the fog of visions which obscures the narrow path that leads to success. Content with his imaginings, the realities become less and less real to him. When, unhappily, his dreams begin to dominate his life and regulate his acts—when he spends money on the ecstatic promise of his imagination that he is rich, or twists a wisp of straw into a fancied crown in the belief that he is a monarch—we smile pityingly upon the poor lunatic who fancies he is eating the hare which is yet uncaught.

"First, catch your hare." Solid counsel for all of us to digest carefully. Mrs. Glasse intended a direction for cooks, but she wrote an instruction for all human kind!

Since writing the foregoing I have ransacked the authorities, curious to learn of any collateral facts concerning Mrs. Glasse's celebrated dictum. I find that in Norfolk and Suffolk (England) there is an ancient word still in use, i. e. *skatch*, which means to skin and dress an animal for cooking. If we read "skatch" for "catch," Mrs. Glasse's instruction would become perfectly clear, instead of being, as at present, in the nature of a "bull." "First *skatch* your hare before you cook it," would then mean, "First *skin* your hare," etc.—which would redeem Mrs. Glasse, but would destroy a lovely tradition as to literary blundering!

There is another word, no longer in use but current in Mrs. Glasse's time, namely, "case," meaning "to take off the skin," according to old Johnson's Dictionary. Shakespeare uses the word in "All's Well that Ends Well," where he says, "We'll make you some sport with the fox ere we *case* him." Suppose the rascally printer made a typographical error in making it "catch" where Mrs. Glasse had written "case"? May her ghost torment his peace for a million years!

"When Johnny Comes Marching Home Again."

If any young man, *not* in the present army of the United States, has in mind to "express his feelings" to a certain young American woman, with the hope that she may consent to a permanent alliance that will multiply his joys and divide his sorrows, he had best be quick with his deliverance and supplication. There is danger for him in delay. The heroes will soon be coming home.

The premonitions of an epidemic of hero-worship already abound. The other day Lieutenant Hobson landed on his native shore, for the first time since the achievement of a glorious deed that has fixed his fame forever. Immediately, everybody within running distance dropped the work at hand and hurried on the heels of other sight-seers to "welcome home the brave." Bank presidents, day-laborers, priests, loafers, artists, toughs, women, children, everybody cheered and hurrahed; and one hysterical young woman *kissed* the hero. The imagination is staggered at the possibilities of osculative welcome when *Dewey* comes sailing home!

It is all fit and proper, and hero-worship has been the fashion since the first hero stood before the world. In every age, in every land, men have saluted the worthy with vociferous acclaim.

"Worship" means, literally, *worthship*. To reward the hero by our adulation is simply recognizing a primal instinct common to humanity. And such worship is creditable to human nature; for it springs from the ever-present impulse, common to us all, to attempt to realize our ideals. We know sadly well enough that these ideals can never be completely embodied in any one personality, since even the hero is "of earth, earthy"; but, as Schiller says, "one must not too querulously measure by a scale of perfection the meager product of reality, in this poor world of ours." But though we cannot find our perfect ideals, we can find the approximation to them: just as it is mathematically impossible for a bricklayer to build a wall *perfectly* perpendicular, he is the best workman who can build it most nearly perpendicular, and it suffices.

To be a hero-worshiper "when Johnny comes marching home again" is to testify in loud voice to our love of country and our pride in its mission and meaning. We cheer the returning soldier because he is the concrete representation of loyalty and devotion to The Flag; we honor ourselves in honoring him, because we witness to the world thereby our faith in larger things than the mere personal factor in the commonwealth represented by the sunburned and dust-grimed soldier. And when we select some one man as the special object of our demonstration—Grant, or Sheridan, or Stonewall Jackson, or Dewey, or Hobson—we lift all of humanity to a higher level by calling attention to the exalted possibilities of single achievement in mortal man.

So let us "go clean daft", if we will, in frantic welcome to the returning heroes, for we will be approved by smiling millions of ghostly patriots who have indulged in hero-worship in their respective lives through fifty centuries of history—and the man who sneers at our adulations "is fit for treason, stratagem and spoils." And the stay-at-home lover who is debating "when" needs hurry his meditations and act quickly, or She may turn to listen to a more winsome appeal "when Johnny comes marching home"!

J. T.

Endorses Tweezer on Vacation.

ED. KEYSTONE.

AUGUST 11, 1898.

I have read with a great deal of interest John Tweezer's article in the August number, entitled "Ten Miles from an Inkstand." If there is anyone to whom a vacation would be beneficial it is the average country jeweler, who is expected by the public to be A No. 1 in everything pertaining to the business, and with whom the idea is common that it is one of the easiest and most lucrative businesses that a man can engage in. The man at the bench who has served his apprenticeship and has put in a few years in business for himself in a country town knows better. Annoyances and drawbacks of which the public know nothing confront him every day. He wishes he could get away from very one, with a possible exception of a kindred spirit or two, "far from the madding crowd's ignoble strife," far from the tiresome bore or the erratic crank—the man with the iron jaw, who talks and talks and talks till your ears pain you, but who never advances an idea worth listening to. Far from subscription lists and dead beats and people who make demands on his time and purse but never spend a nickel with him. He would hie him far away to some mossy glen or sweet flowery dell and listen to the wild birds singing and the chirping of the crickets, watch the many forms of life where nature reigns undisturbed, lie down to rest while the wind makes sweet music as it whispers its love to the trees, and the soft, soothing murmur of the rippling stream lulls him to slumber and forgetfulness. There is nature's balm for weary nerves—there would he regain his health, and that joy of living that only those who live close to nature can know. "One impulse from a vernal wood may teach you more of man, of evil and of good than all the sages can."—(Wordsworth). FAR WEST.

Workshop Notes.

Subscribers wishing inquiries answered in this department must send name and address—not for publication, but as an evidence of good faith. No attention will be paid to anonymous communications. Questions will be answered in the order in which they are received.

"Filligree."—How to restore tarnished silver filigree jewelry to its original whiteness?—Heat the goods to a pale red heat, that is, so that it appears of a pale red in an obscure light, say, held under the workbench. When cold, place in a pickle composed of water 100 parts, sulphuric acid 5 parts. Add the acid to the water, and not the water to the acid, as in the latter case the acid will be thrown about. The work should remain in the pickle for several hours and if not perfectly whitened repeat the operation.

"Jumping Dial."—I recently repaired a Swiss watch with three dials, showing the hours, minutes and seconds. The hours and minutes were shown through openings, the figures jumping to show the time. The dial was marked "A. Kaiser, Brevete System." Will you please tell me where I can get a book explaining all about it?—The first we saw of these watches made their appearance about twelve or fourteen years ago. The words "Brevete System" simply mean patent system. These watches were somewhat complicated in their structure, and we think few were sold. We know of no book explaining their mechanism.

"Port."—A preparation to oxidize copper that can be applied with a brush and hold its color after being lacquered?—You do not say what color of oxidization, but we presume you mean black; if so, you will find your quest a difficult one to realize. A full black of the true oxidized type can be obtained on copper by first depositing a thin film of silver which really oxidizes, or rather is sulphurized. A greenish-black can be produced by brushing with a mixture of soft soap and sal ammoniac, allowing the articles to stand for several hours, then rinsing in pure water. A fair black can now be produced by lacquering with a laquer colored by nigrosine, a soluble aniline black.

"Pivot Drill."—An esteemed correspondent writes in regard to drilling for pivots: I have read in *The Keystone* for June, 1898, page 492, a question relating to drilling for pivots. The querist says he has a ball form in the hole and you answer he is mistaken. Now, will you allow me to speak and tell him how to get the ball out; first let me tell that correspondent that a ball does not form, but a round point forms on the drill, and it comes from two causes: (a) From the staff not being centered right; (b) The drill not centered. The remedy is to make a drill the shape of a screw-driver, that is, flat on the end, and while the staff is revolving in the lathe, hold the drill in the staff at an angle of 15°, and it will cut out the glaze, then go on with the drilling.—We are always pleased to have our readers make suggestions and give their methods of doing work. It is in profiting by other peoples (and our own) experiences that the world makes such great advances in the mechanic arts. We would beg to add to what our correspondent says some explanations which he evidently takes for granted: In using a chisel-shaped (or screw-driver) drill it is important that the centering recess is deep and wide enough to hold such a drill steady. We still hold the idea of sufficiently softening a staff so that there is no difficulty in drilling it with a good drill. This precaution observed, and all the bugaboos of drilling for pivots disappear, and as stated in former article, annealing the body of a balance-staff until it can readily be drilled in no way injures it or detracts from its service.

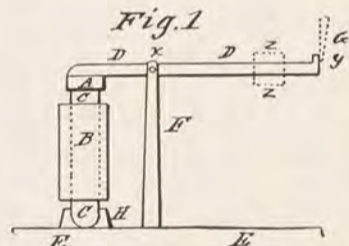
"Short Arc."—(1) I have a Welch thirty-hour clock which seems to be in good repair, but the pendulum swings in a very short arc and runs weak. How can I give it a longer swing? Will a new verge be of any advantage?—Usually, in Yankee clocks the verge (pallets) turn on a pin, said pin being placed near the end of a brass arm, which can be turned to change the depth between the pallets and the escape-wheel. In most instances, setting the pallets closer to the escape-wheel will increase the arc of vibration. Occasionally, however, we find an escapement mismatched, and any attempt to set the pallets closer will cause the teeth to catch, in such instances a change of verge is necessary.

(2) Should the loop of the verge wire work loose on the pendulum or should it fit close?—The loop should only be free of the pendulum; all side shake is so much lost power.

(3) Can you devote space in *The Keystone* to give rules for fitting a verge to an escape-wheel?—There are no hard and fast rules which can be given for setting a recoiling-beat escapement. With the ordinary thirty-hour Yankee clock the usual practice seems to be to set the verge so as to escape at from 8° to 12°, and after the clock starts to have the arc of vibration increase up to 12° or 15°.

(4) I often see small Waterbury clocks which seem all right but will not run. Is this caused by the spring weakening?—You do not say what kind of small clocks, that is, pendulum clocks or lever clocks. Usually, thirty-hour pendulum clocks give but little trouble, running for years with an occasional oiling. Mainsprings, of course, fall off in power a trifle, but allowance is usually made by the manufacturers for this. We think you had better look to some other cause for these clocks stopping than the weakening of the mainspring. With small lever clock the usual trouble is the cone pivots of the balance wear stumpy. Reput these, and the clock is all right again.

"Electric Protection."—(1) I have a store about twenty-five feet from my residence which I wish to connect to my bed room by an electric bell. I want the wire to run to every door and shutter in the store. Does any concern keep such appliances?—In getting up such a device do not depend on a bell rung by electricity, but place your faith on a bell rung by mechanical means, and prevented from ringing by the passage of an electric current. The great point in all such matters to look to is, there is an element of uncertainty about any device propelled by an electric current, because such current may fail just at the time you most desire it to act. Suppose, in illustration, you have all your doors and windows arranged so that on opening any of them a bell is rung by electricity in your bed-room. Further suppose that from some cause your battery gave out, or that some of the connections were imperfect, the whole affair is a failure. On the other hand, we will suppose that we have an alarm bell worked by a weight, and that we arrange an electro-magnet so that as long as the current is passing, this electro-magnet holds the armature up and prevents our alarm from running down. It is easy to arrange an electrical circuit in such a way that opening any one of any number of doors or windows, or moving a chair, or stepping on a certain board, breaks this circuit, when the mechanical alarm would act, that is, the bell would ring by means of a weight. It is further easy to put two, or more, mechanical alarms in such a circuit. To be sure it costs a little more to maintain a closed circuit battery than an open circuit, but this should not be considered, when the matter lies between certainty and uncertainty. An electro-magnet which will lift an armature weighing only one pennyweight is just as certain in its action as if it weighed one ton. Two gravity battery cells which will not cost to exceed twenty cents a month will furnish the necessary electric current. The idea of this system is, that when your doors, windows, etc., are shut, a complete electrical circuit is made, and the electro-magnet holds up the small armature which serves as a stop to prevent the weight alarm from going off. On the other hand, no matter how often an alarm which is rung by electricity will ring, there may come a time when it will fail, but two weight alarms can in no instance fail. There are but two reliable batteries for closed circuit work, and these are the gravity or crow's-foot and the Daniel copper cell. The electro-magnet for such an alarm should be made of round wrought iron bar, 1/2" diameter and 5" long, bent into a U form and wound with ten layers of No. 26 magnet wire. The armature can be made of a bar of soft wrought iron, 1/2" wide, 1/8" thick and long enough to reach across the two poles of the U magnet. Between the armature and the magnet should be a strip of mica to prevent adhesion. A good idea of the arrangement of the several parts can be had by inspecting Fig. 1, where we show the parts arranged in proper relations. In the cut, C represents a side view of the electro-magnet; B, the helix of No. 26 wire wound on said magnet. The armature A is attached to a lever shown at D. Said lever turning on a pin at x, which is attached to the post F. The entire device is mounted on a base board shown at E. At z is placed a movable weight which is held friction-tight on the lever D, which gives, say, 1/8" of an ounce preponderance to the end y of the lever D. Now, as long as any electric current is passing around the magnet C, the lever D is held in the position shown in the cut, but as soon as such current ceases the excess of weight in the tail of D causes it to drop and disengage the piece G, which sets the alarm bell to ringing. There is another advantage in this system of alarm which is we can employ a bell of any size. It would be an easy matter to arrange the device shown to set off a large mechanically rung gong bell on the roof which would alarm the whole neighborhood.



(2) I wish a good recipe for mending broken china.—Mending broken china is like almost any other mechanical operation, success depending more on the man who does the job than on the cement employed. The most perfect mending of porcelain is effected by joining the parts with a paste composed of glass such as is employed for making so-called crystal goblets reduced to an impalpable powder and calcined borax in the proportions of twelve parts of the fine glass to three of the borax. The above ingredients are ground with water to a paste like cream and entirely free of any coarse particles, in fact, like a perfectly ground paint. The broken edges are coated with this paste, and the broken parts bound together with rather coarse iron binding wire. The broken article is now placed in glazing kiln and heated until the paste fuses and joins the parts. We should have said that after the parts are joined and bound together, all excess of glass paste should be scraped away. The Chinese conduct such mending so perfectly as to defy locating the break; it is also water and acid-proof. (II) Freshly slacked lime and white of an egg makes a good cement—must be used quickly. (III) Tie the parts securely together with twine and boil in skim milk. Articles so mended should stand for three months before handling. (III.) White lead ground in oil as for painters' use is an excellent cement for earthen ware. Articles mended with such white lead should remain with the parts bound together and unused for at least three months. The thick paint, as it comes in the keg, is the kind to use.

(3) A cement for gutta percha?—Dissolve gutta percha in bisulphide of carbon.

(4) Cement for marble?—Plaster of paris and water mixed to the consistency of cream. (II.) Freshly slacked

lime and white of an egg. (III.) Strong solution of chloride of zinc made into a paste with the oxide of zinc. We think we can to advantage say a few words about binding pieces of porcelain together for the cementing process. The idea to govern such binding is to maintain a constant pressure. The Chinese, in using the glass cement described above, use iron wire, and arrange the heating kiln so the article is suspended, its weight drawing the wire tight to close the pieces. The same idea can be applied to cemented articles which need to stand for the cement to set.

"Telephone."—(1) How to make a telephone transmitter?—A proper reply to this question would be too long for this department, and most of the transmitters now in use are still covered with patents. We would say, however that most transmitters are based on the microphone invented by Professor Hughes, said invention being given to the world, but subsequent inventors have tied up minor but important details with numerous patents.

(2) How to make an induction coil with about 1000 ohms resistance to use with telephone transmitter?—This question again involves too much space, as the proper description of how to build such an induction coil would occupy at least two pages of *THE KEYSTONE*. We would briefly state in general terms the proper proportions of an induction coil for this purpose: Consists of 180 to 185 turns of No. 23 wire for primary, and 4100 to 4330 turns of No. 28 wire for secondary. Of course, the coil must be adjusted to the circuit on which it is used.

(3) Why are the little cases filled with fine bits of brass put on the end of the armature of telephone electric generators?—We do not quite understand this question, but think you refer to some of the many microphone devices which are on the market.

"Restoring Movements."—Please let me know how the color can be restored to gilt watch movements after it has worn away?—There is no plan except to regild. This is something well worthy of the attention of all watch-makers. Dipping a gilt movement in a solution of cyanide of potassium, made by dissolving half ounce of this salt in a pint of water, will take off the stain, and if the parts are well dry brushed they will look very nicely for a short time, but in a few days the old stain comes back; hence we say above that there is no remedy except to regild. The actual expense of gilding a movement is but a few cents, and in many instances it will pay the workman to regild even if he never gets a cent for the job under the name of gilding. More instances will be found where the owners of gilded movements, on which the gilding is worn away, who will gladly pay for having the movement restored to its original freshness. There is no great skill required to gild a movement. A careful perusal of the articles now running in our columns under the head of "Electro-Metallurgy" will supply the necessary information. There is no use of trying a makeshift of a cheap battery and an unreliable gold solution. Learn to do such work right, and the remuneration and satisfaction is sure.

"Moulder."—(1) Want to make some castings of aluminum, silver and nickel composition (buying nickel aluminum ready made). In what manner must the moulds be prepared to avoid a streaky structure I sometimes get by casting in iron moulds? Give all the information you can regarding vent holes—outlets for air. The foundry here does not make fine smooth castings. I think their sand is not fine enough. Can you give me any information as to how to prepare best sand for moulding?—Nickel alloys are held by founders to be very difficult to manage. In employing iron moulds the temperature of the mould has much to do with the castings. About 200° F. usually gives the best result. Aluminum castings require especial precautions, as do the many alloys. As far as vents are concerned they are regulated by good judgment and experience, and then, again, air vents which would be ample for one man to pour for, would fail for another. As a rule, all metals should be poured at as low a temperature as they are perfectly fluid. This advice admits of modification by the nature of the castings to be made, as for instance, a rather bulky casting allowing a lower temperature than one where the metal has to fill small, thin portions of a mould. Dry sand moulds, that is, moulds made and baked in an oven are much esteemed by some founders, while other workmen will produce equally as good results with "green sand," that is, sand moistened a little to make it pack. In fact, we know of no mechanical operation which is so difficult to describe as foundry practice. Moulding sand is a natural product, and that of the best quality is found in only a few places. That esteemed the best on the Atlantic coast is found at Waterford, a few miles above Troy, N. Y. Good moulding sand is said to be found in abundance on the Pacific coast, but we are unable to name the localities. Such sand is of peculiar grit, and is naturally mixed with from 1/2 to 1 1/2 per cent. of loam. No artificial compounding seems to answer the purpose.

(2) What is sand mixed with for cores, and at about what temperature are they dried?—Here again comes a foundry matter which requires great experience. Usually, clay is mixed with the sand, the amount of clay varying according to the size and stability of the core. The best practice seems to be to employ no more clay than is absolutely demanded to maintain safely the form of the core. A mixture of three parts of brickdust and one part of plaster of Paris is also used. These cores are heated red hot before using. A piece of charcoal, shaped with a knife to the proper form, makes an excellent core in some instances.

732 a

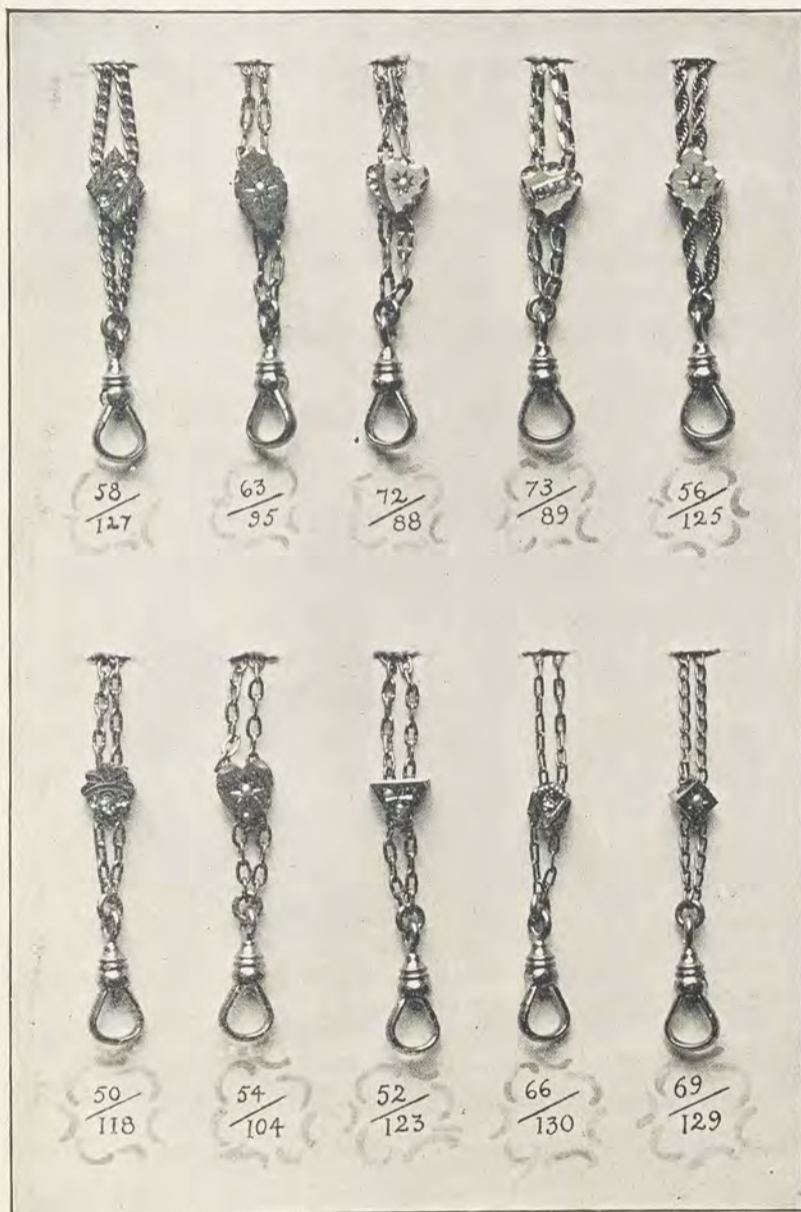
PROSPERITY AND COLUMBUS WATCHES

go hand in hand, and both will make you happy. You can not be prosperous unless you handle the **COLUMBUS MOVEMENTS**. We are making more Watches than ever, they are positively the best on earth.

Our "**TIME KING**" and **NOS. 1 AND 2**, are especially adapted for **RAILROAD** services. Every movement guaranteed. Our line is complete.

THE NEW COLUMBUS WATCH CO., Columbus, Ohio

C. B. & H. CHAINS



Here are a few from our large line of Ladies' Lorgnette Chains, in seamless 14 K. gold plate, which we warrant to give satisfaction.

LIST PRICES PER DOZEN.

58-127, \$28.50 per doz.	73-89, \$30.00 per doz.	54-104, \$22.50 per doz.
63-95, 27.00 " "	56-125, 51.00 " "	52-123, 24.00 " "
72-88, 30.00 " "	50-118, 21.00 " "	69-130, 13.50 " "
		69-129, 15.00 " "

Also made in sterling silver.

Write to us for samples and discounts.

We also make the finest line of **GIRDLES** and **SASH BUCKLES** for fall trade; no stock complete without them, as they sell at sight.

CODDING & HEILBORN CO.

JEWELERS AND SILVERSMITHS,

NEW YORK OFFICE—G. F. Kaiser, 11 Maiden Lane. North Attleboro, Mass.
SAN FRANCISCO OFFICE—Stanley Glidden, 120 Sutter St.
CHICAGO OFFICE—D. L. How, 807 Masonic Temple.

Examination Will Convince You

Our prices are so low that it makes you suspicious of the qualities until you see them. Our increasing trade and the flattering testimonials we are receiving is the best evidence that the goods are right.

Our RED X CROSS Mainsprings

are the best on the market. They will not set in the barrel. They are accurately gauged, nicely ground and finished, and are warranted not to break. We replace broken ones with whole ones. Price, \$1.00 per doz., \$11.00 per gross.



Our Jewels and Balance Staffs

are nicely finished and accurately sized; our prices for all sizes and styles of American movements is

\$1.25 per doz., 15 cts. for single ones.



Cash with order. Money back if you want it. Send for special price-list.

TIDD & CO., Columbiana, Ohio.

Let Us Get Acquainted.

IN ORDER TO INTRODUCE SILVER CREAM TO NEW CUSTOMERS WE ARE MAKING THIS EXTREMELY LIBERAL OFFER:



Send us an order for half a gross of half pint bottles, the 25 cent size. The price is \$9. With the order we will send you **free** one gross of 1-ounce sample bottles with **your name and address on the labels**, also a **nickel display stand** (see cut) for displaying the polish on the counter, together with circulars and show cards.

These sample bottles are an exact fac-simile of the regular package with a nickel screw cap and handsomely lithographed label.

Up-to-date jewelers are beginning to realize that a stock of reliable silver polish is an essential feature in their business, and with a little effort one can establish both a permanent and paying line of customers in this article. We are ready to assist them, and an offer of this kind ought to help us get acquainted. Now is a good time to begin.

SILVER CREAM is made from the purest materials that can be obtained by a reliable firm of over 25 years' experience in the business, and is **guaranteed the best** silver polish made anywhere. It is perfectly harmless, and cleans silver as no other polish can. It is a **cleaner—not a scourer**. Dealers need not hesitate to recommend it to their customers. Send for catalogue and samples to

J. A. WRIGHT & CO., Keene, N. H.

Makers of the famous Red Star Cleaning Powder.

732 b

A Grand Success

is the **SILENT SALESMAN** case in any well-conducted jewelry store. It leads to rapid selling. We are putting them in many of the modern stores. Write for catalogue and any information desired.

IT COSTS YOU NOTHING.

John Phillips & Co., Ltd.,
Detroit, Mich.

Silent Salesman
TRADE MARK

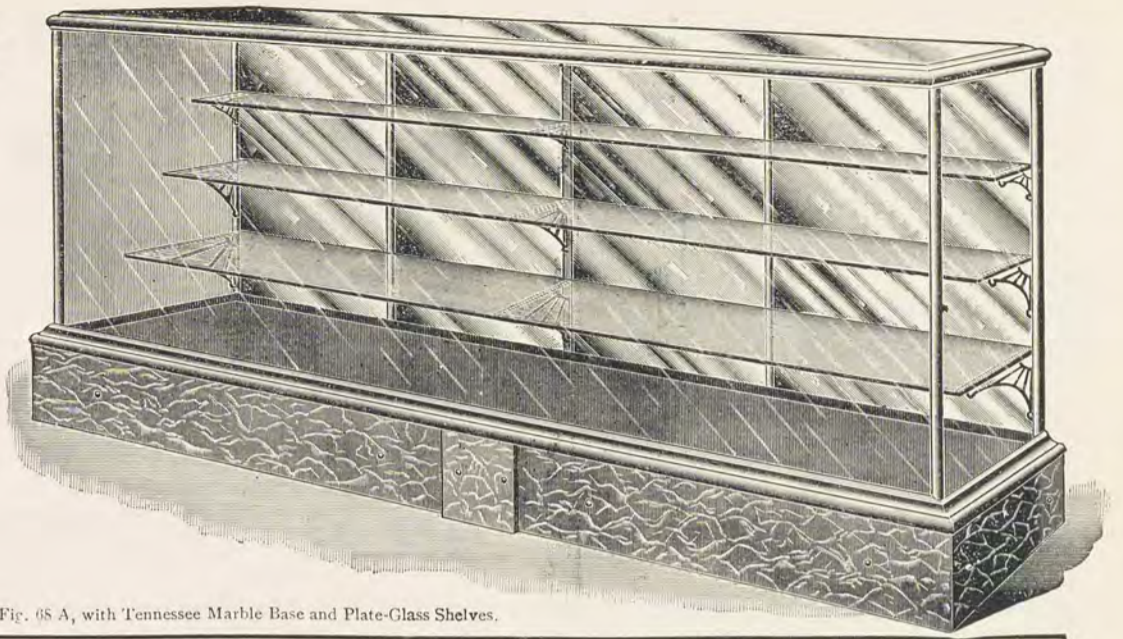


Fig. 68 A, with Tennessee Marble Base and Plate-Glass Shelves.

THE QUEEN CITY SILVER CO.

MAKERS OF
**Silver-Plated
Hollow Ware**
FOR
PROGRESSIVE
JEWELERS

933 TO 941 FILLMORE ST.
CINCINNATI

ORIENTAL FLUXINE

for Hard Soldering.

CONTAINS NO ACID.

Does away with dirty borax slate.
Always ready for use.
Clean; convenient.
Saves time and labor.
Does not gum like borax.

Recommended by Jewelers, Opticians and Dentists.

FOR SALE BY

Jobbers in Materials and Supplies.

Made only by **Elm City Chemical Laboratory,**
New Haven, Conn., U. S. A.



Cut 1/2 size.

MINIATURE PORTRAITS



in
Watches,
Brooches,
Lockets.

Painted
Miniatures
on
Ivory.



Reduced price to the trade only. Send for circular.
Our work is **DURABLE.** It will not fade nor peel off.

The Goldstein Engraving Co., 45 Maiden Lane,
NEW YORK.

We do Souvenir Spoon Engraving and Etching.

THE REPUTATION OF

Hutchinson's School for Watchmakers, Engravers and Opticians

for INSTRUCTION in the HIGHER BRANCHES of Watchmaking as well as Watch Repairing,
also in Engraving and Optics, STANDS FIRST.

It will never be lowered.

It is up-to-date in all Departments.
CAN YOU ASK MORE?

Its graduates are successful.

Catalogues on application to
J. L. HUTCHINSON, Supt.

La Porte Watch School, La Porte, Ind.

News from the Northwest.

The only report from this section that can be made is, fall business promises to be the best for years. Grain has now been harvested, and while it is not all threshed it is in the stack and enough has been threshed to show that for quality and quantity it has seldom been equaled. All unite in saying that all around it is the best for a great many years. This will naturally have its effect on business, and if the jeweler does not get his share it will be his own fault. The war being over so much quicker than expected has also had the effect of making people feel more at ease, although we, in this section, can safely say the war scarce did not bother us very much, as it has all appeared more of a dream than anything else. Business has been satisfactory for the season. Jobbers have all travelers out and hustling for business, and are pleased with results. Collections have only been fair the past month. The retailers claiming the farmers and laborers are all busy in the harvest field, and what they do buy is paid for in promises to pay after harvest.

Henry Jacke, St. Paul, has had his store made more conspicuous by placing some handsome signs.

Frank C. Shinn, of S. H. Clausin & Co., Minneapolis, has returned from his vacation, which he spent at Kansas City, Mo., his old home, and is now on the road hustling for business.

Fire at Bismarck, N. D., August 9th, destroyed the stores of C. H. Phelps—loss \$3,000, insurance \$1,000, and Fred. Strauss, loss \$4,000 and insurance \$1,000.

Benj. Lapp, Duluth, Minn., has located at Como and Rice Streets, St. Paul, Minn.

O. H. Arosin, St. Paul, is being prominently mentioned as a candidate for County Treasurer of Ramsey County.

J. E. Miller, Idaho Falls, Idaho, has opened a branch store at Blackfoot, Idaho.

Geo. H. Rentz, of Rentz Bros., Minneapolis, received the Democratic nomination for Park Commissioner.

John Caeser, Stillwater, Minn., spent a couple of weeks last month visiting friends in Wisconsin, his first vacation in 7 years. S. Malenberg had charge of his store during his absence.

Guy Norman is the new jeweler at Lewiston, Mont.

Chas. Beard, of Sischo & Beard, St. Paul, was missed from his accustomed place last month. He was taking a vacation to rest up; for the rush, he says, is bound to come.

Nels Peterson, Henderson, Minn., attended the Photographers' Convention at Minneapolis last month.

M. A. Campbell has opened a store at Clear Lake, Iowa. F. W. Terhune, formerly at Barron, Wis., has charge of the bench.

Reuben L. Munns, Minneapolis, is entertaining his friends with fish stories, the result of his recent visit to Lake Minnetonka. That 15-pound pickerel story is his pride.

C. M. Yaeger, St. Paul, has moved from 177 East 7th Street to 416 Jackson Street.

Benj. Levy, Stillwater, Minn., has returned from a business trip to Eastern markets.

Leslie Foot, St. Paul, has quit business at Grove and Broadway.

A cat in the show window is a good thing once in awhile, but when a large dog happens to see the cat, and he is on the outside, it sometimes creates a commotion. Such was the case at A. H. Simon's store, St. Paul, last month. Result, a broken plate glass window and a badly scared dog and cat.

C. J. Peck, for the past year in charge of the repair department for Wm. Donaldson & Co., Minneapolis, has left them.

A. U. Wetzel has taken the position vacated by C. J. Peck with Wm. Donaldson & Co., Minneapolis.

C. O. Landon, father of G. C. Landon, Plainview, Minn., while in a demented condition, July 23d, committed suicide. He was 70 years of age, and for years had been suffering from shaking palsy.

Chas. E. Stillwell, Waukon, Iowa, has sold out to Grimm Bros.

C. B. Thurston, Montgomery, Minn., represented his village "on the platform" at the laying of the corner-stone of the Minnesota State Capitol at St. Paul, last month.

Nic. Drexel, formerly with C. M. Yaeger, is now with W. S. Dippe, St. Paul.

E. A. Tiffany, Amboy, Minn., spends his leisure moments sailing on Jackson Lake. He handles the ropes like an expert.

D. Marx & Son, St. Paul, will have the annual catalogue ready for distribution about September 15th.

E. L. Overjorde, Hector, Minn., paid the Twin Cities a visit last month, to buy some new fixtures for his store.

J. W. Wegman, lately with M. Shapira & Son, St. Paul, has started on his own hook at 93 East 4th Street.

Willmar & Derby, Hamilton, N. D., have sold their drug stock, and will confine themselves to the jewelry line exclusively.

The St. Paul and Minneapolis jobbers and manufacturers had a ball game August 13th. The war with Spain had been declared off, and just to keep up the excitement it was continued in this game, the St. Paul's taking Spain's place, and the results are a matter of history. Spain had not the slightest show of a victory, and neither did St. Paul. Score, 26 to 3 in favor of Minneapolis.

C. W. Heidbrink, for the past 6 years with John Pfister, is now with M. Shapira & Son, St. Paul.

C. F. Sischo, of Sischo & Beard, St. Paul, is in Northern Minnesota and Wisconsin, with his family, spending his vacation and incidentally looking after the firm's interests in that section.

W. H. Creveling, of the Reed-Bennett Co., Minneapolis, has returned from his wedding trip East, and is again in the saddle, looking for business.

Ben. Marx, of D. Marx & Son, St. Paul, surprised his customers by appearing minus his mustache. Ben says that was the cause of the walloping the St. Paul's got in their recent ball game, and he will at once allow the Jonah to disappear.

Louis Hanson, River Falls, Wis., will shortly remove to Devil's Lake, Minn.

Geo. W. Wooley, St. Paul, has the trade's sympathy in the recent loss of his only son, aged 14.

Arvid Osterberg, with Lawrence Hope, St. Paul, has returned from his vacation spent at Hammond, Wis.

E. C. Weinberg, the optician, Ashland, Wis., is now located with E. Lytle, St. Paul, Minn.

O. C. Schoeneman has charge of the repair department for Scott Bros., Mankato, Minn.

Thos. Gaskell, St. Paul, has removed from 114 to 108 E. 4th Street.

Rob't Reed, of the Reed-Bennett Co., Minneapolis, has received the Democratic nomination as a member of the Board of Park Commissioners.

A. Paegel, Minneapolis, is out for the Republican nomination as Alderman of his ward, the Eleventh. Minneapolis jewelers seem to be popular with the masses. Here's hoping they will all be successful.

F. R. Levy, Stillwater, Minn., will remove four doors from his old stand, September 1st.

J. R. Bunker, of Sischo & Beard, St. Paul, is out on his Southwestern trip. "Bunk" is all smiles, and reports business the best he has ever had.

Trade visitors to Twin City jobbers the past month were: C. L. Ekberg, Red Wing, Minn.; John Saxine, Prescott, Wis.; Fred. Willman, Stillwater, Minn.; Geo. B. Johnson, Rushford, Minn.; Edw. Moore, Hudson, Wis.; E. L. Overjorde, Hector, Minn.; Thos. Morris, Crookston, Minn.; Frank L. Grace, Stillwater, Minn.; A. J. Lee, Hudson, Wis.; L. W. Keyes, Hammond, Wis.; Martin Johnson, Carver, Minn.; H. F. Alden, Sauk Center, Minn.; Nels Peterson, Henderson, Minn.; Benj. Lapp, Duluth, Minn.; J. P. Olson, Watkins, Minn.; C. Arveson, Bird Island, Minn.; Emil Wetzel, Montivideo, Minn.; I. M. Radabaugh, Janesville, Minn.; W. G. Gould, Glencoe, Minn.; Jos. Fredell, Center City, Minn.; F. Shapira, Little Falls, Minn.; E. C. Bennett, Zumbrota, Minn.; F. W. Hauenstein, New

Ulm, Minn.; E. E. Church, Clear Lake, Wis.; J. H. Roettger, Torah, Minn.; C. B. Thurston, Montgomery, Minn.; Nordahl C. Nuseth, Grantsburg, Wis.; J. E. Reid, Rochester, Minn.; Peder Gaalas, Stillwater, Minn.; Al. E. Winter, Ellsworth, Wis.; E. C. Weinberg, Ashland, Wis.; Harry P. Turner, Rush City, Minn.

The Cash System.

While as a rule the advantages predominate over the drawbacks in the conduct of a cash business, yet the latter have been sufficiently numerous to influence many men against it. Comparatively few men have had sufficient shrewdness and tenacity of purpose to conduct their business on the best principles. One of the main objects in business is to make it profitable. Undoubtedly the most desirable system to employ is the one which is perfectly honest, upright, secures the largest net gain and affords the greatest peace of mind while operating it.

We have been referring indirectly to the cash system in its highest form. In employing this principle there are no books but the cash book, goods are all sold for cash, and all purchases are discounted. If sufficient capital is provided to conduct the business properly, this plan is quite practicable. Probably the greatest advantage connected with this system is the reduction in the actual expense of carrying on the business. There is no bookkeeping, no collecting, no loss from bad accounts and no charge for interest. Instead of the latter, there is an important credit to profit account secured by the discount on purchases. A man who does business on an extensive credit system never has the benefit of this source of gain, though he may conduct his business on an equal amount of capital as the cash dealer. Experience has proven the truth of the merchant's adage that goods well bought are half sold. And the only equivalent for them which passes current nowadays is cash, for it alone buys goods in the right way.

Importance of Good Clerks.

It is only too evident to many who cannot entirely remedy the matter that success in the retail branch of business depends to a marked degree upon the clerks. If they show a deep interest in their work, and exert strenuous efforts to sell the goods, a great difference is noticed in the number of sales which are made, whereas at other times when they relax and show no interest in their work, or do not endeavor to persuade customers to buy, a marked falling off is observed. This is a difficult matter to deal with, and yet it is one which requires a remedy that will have a more permanent and enduring effect than simply a sound scolding. It would possibly be better to do something which will make them feel that they are working for their own as well as their employers' interests. To expect clerks to do better from a sense of duty presupposes the presence of a highly developed conscientiousness which few of them possess. Therefore we advocate self-interest as a powerful lever with which to move them. This is the plan of profit sharing which has been adopted already by many stores. If clerks are given a small but adequate per cent, on the number of sales they make, they will soon summon up energy and enthusiasm which they have hitherto kept under a bushel measure. It is also highly probable that by employing these incentives to arouse the clerks, a merchant's sales would be so much larger at the end of a season that he would make a handsome profit, even after giving them a per cent.

Scan Windows For Their Wants.

Many people buy things because they see them in the windows, and, not a few persons, when they have concluded to buy a certain article, walk about from store to store until they see what they want in a window. These people, if they don't find it in the window, conclude the merchant hasn't got it. Not only do people look for things they want in windows, but they buy lots of things they don't need, and had no idea of buying, simply because they see them attractively arranged in the window.

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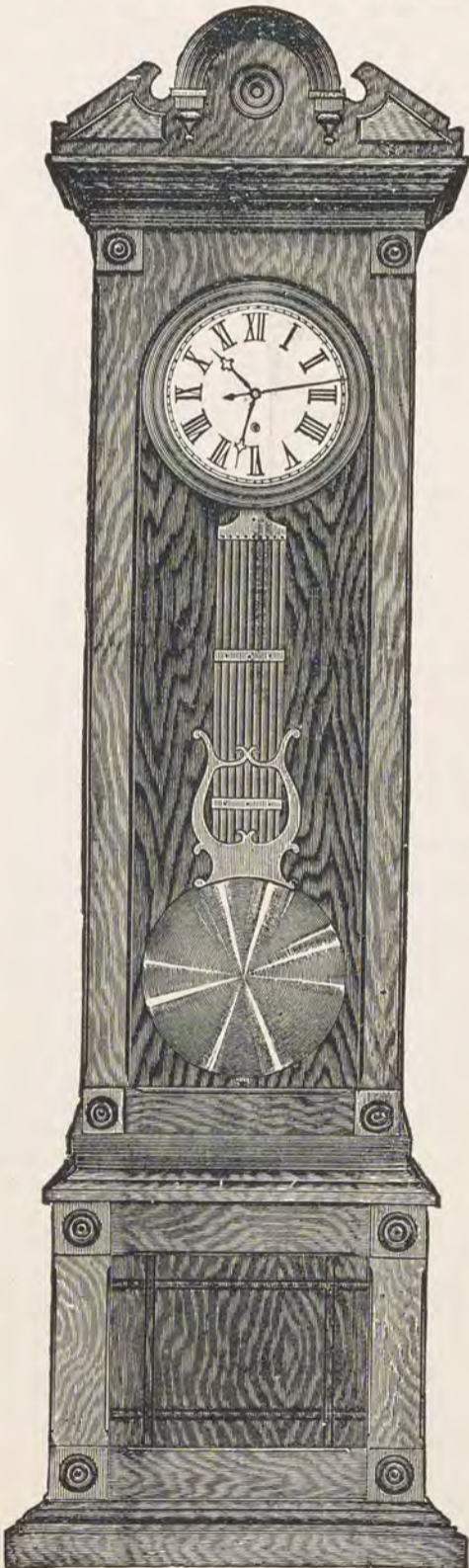
REED-BENNETT CO.

Minneapolis, Minn.

*The Leading
Wholesale Supply Depot
of the Northwest*

REGULATOR No. 52.

Walnut or Cherry. Piano Finish. Highly Polished.



Eight-Day, Weight, Time. No. 100 Movement.
Brass Weight.

Finely Finished Movement of Best Quality, Encased in Iron Box. Dead-Beat Pin Escapement, Sweep Second, Retaining Power. Porcelain Dial, 12 inches. Height, 102 inches. With Gridiron Pendulum, Oval Rods.

Clock Company's Price, . . . \$95.00
OUR NET PRICE, . . . \$35.00

Never before in the history of the jewelry business has a Regulator fitted with the No. 100 Waterbury Movement been sold at this price.

We have but a few left. Order at once or you may get left.

WATCH and JEWELRY REPAIRING.

*We call the special Attention
of the Trade throughout the
Northwest.*

When in need of anything,
**order from us and save
time, MONEY, freight
and express.**

When in the city, call and
get acquainted.

When at home, consult our
Catalogues and you will be well
posted.

**We illustrate here
A Few Necessary Articles
For new beginners, at
Astonishingly low prices.**

Testimonials.

March 1, '98.
No. 52 Regulator received all
O. K. Am very much pleased—
better than I expected. Enclosed
find draft for \$35.00.
ED. MOORE,
Golden, Ill.

March 27th.
I have received Regulator No.
52 in the best of condition, and
must say I am very much pleased
with it, and will do all I can
whenever an opportunity offers to
recommend your house. Find
check for \$35.00.
Respectfully,
C. H. RICHTER,
Bath, N. Y.

Am more than pleased with the
Regulator No. 52 I bought of you.
I could sell it for more than its
cost.
CHAS. KUTLSON,
Mayville, N. Dak.

We have dozens of letters
like the above.

If you handle SPECTACLES,

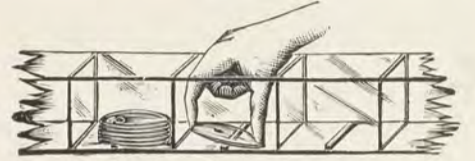
see our Catalogue for goods
with a reputation. We handle
the **American Optical
Co.** product. See the prices
we quote, and you will be
convinced that we are the
fellows to buy from.



WATCH RACK CABINET.

Solid Oak. Regular price, \$6.50;
our price, \$4.50 net. Height 32
inches, width 22 inches, depth 3 inches.

Watch Glass and Material Cabinet Combined.



CUT SHOWING IMPROVED PARTITION.

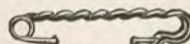
Made in solid oak, with 480 spaces for glasses, and 63 holes for material bottles in top drawer. Every jeweler will appreciate this Cabinet. Regular price without the material space, \$7.50; **our price**, including material space, \$5.00 net cash, F. O. B. Minneapolis.



WATCHMAKER'S ROLL-TOP WORKBENCH.

This Workbench is made of the best quality of well-seasoned oak, and we guarantee the workmanship to be A1. It stands on castors, has apron-drawer, chuck holder, vise-rest and curtain cover, which, with drawers, are locked simultaneously. Both ends lap down. Length, 3 feet 8 inches; width, 2 feet 3 inches; height to table, 3 feet 3 inches; total height, 4 feet.

In Solid Oak, . . . net cash, \$15.00
Solid Oak Bench, Flat Top, . . . 8.00
" Elm " " " " " " " " 7.75



BEAUTY PINS.

'Best' Quality Rolled Gold
Plate. Per Dozen, 23 cents.



THE EYE SHIELD IN POSITION.

CELLULOID EYE SHIELDS.

Per Dozen, \$1.25. Retail at 25 cents
a pair—150 per cent. profit and no kick.
This is the finest eye protector made;
keeps out all dust, shades the eye, is light
and feels comfortable to the wearer.

**Silk Wire Gauze Eye Protectors
for Threshers, \$1.50 per dozen.** Dust-
proof, cool, light and strong. Order now
while they are in demand.



CRACKER JAR.

Satin and Hand Engraved. Price, \$4.00. Sample
piece of our 15-piece assortment of Quadruple Plated
Silverware for \$15.00, less 10 per cent. Send for
circulars showing the 15 pieces. The biggest money-
maker of the season.

Prosperous Northwestern Jewelry House.

The Reed-Bennett Co., Wholesale Jewelers, Minneapolis, Minn.

In establishing and guiding to success a wholesale business much depends on location. All else being equal, the retail trade will naturally patronize the wholesale house in its own section, for "a base of supplies" should be as near at hand as possible, and consequently a wholesale house centrally located in a prosperous section is certain of success, if the goods and business methods are such as appeal to the trade. Minneapolis, the great Northwest and the Reed-Bennett Co., are an excellent combination in this respect. The "Flour City" stands at the spout of the greatest wheat bin of the world. The three great spring wheat States of America are all belted with iron roads having for the most part a southeasterly trend and in the larger part concentrating in Minneapolis before taking their departure by diverse ways to points still farther south and east. This makes Minneapolis and, in a less measure, her smaller twin, St. Paul, a great entrepot, not only of wheat but of all other agricultural products that go out of the State to great markets at points of great population or across the sea. This traffic in wheat is not likely to fail for many generations, for but a portion of the available wheat land has yet been utilized, and the surplus alkalis of the wheat soil will not permit it to exhaust, as so many other spring wheat soils have exhausted. So far as can now be seen, Minneapolis is likely to continue at the head of all American cities, storing, grinding or shipping wheat. It is thus easily seen that the handling of this grain gives this city an advantage as a jobbing center that never could have been obtained without it.

Minneapolis is not the metropolis of a vast and rich domain by accident. That this is the metropolis of the newest, freshest and most promising half of the United States, is no idle claim. The fact, established, it is true, in recent years, is no longer disputed. That here is the gateway to a wide stretch of country is but a simple geographical fact, and the new West is already rich in products as well as possibilities. No chance causes have resulted in the development of the fertile agricultural regions of these new States and Territories, the utilizing of the timber found in our grand forests,



PRIVATE OFFICE

commercial growth and supremacy than here exists. The causes which indicated St. Anthony Falls, with its mighty water-power, as the nucleus of a great city, were active and effective as soon as the ax and ploughshare crossed the Mississippi in their westward march of conquest.

The pioneers of the West have been conspicuously men of the best class ever engaged in the settlement of similar territory. The brawn and muscle, the brain and energy of the older Eastern States, found here ample scope for their efforts and ambition. Modern machinery and our grand free school system helped the early farmers and pioneer business men to succeed in their efforts and bring up a generation of young men and women able to promote and enjoy the best things of modern civilization. Wealth and culture have come at once, as twin blessings, so that to-day very few people in the eastern half of the country appreciate the commercial or social conditions found west of the Mississippi

and the Great Lakes. Primitive methods are gradually disappearing. The cowboy, like the buffalo, is known mainly as a curiosity of the past. Beautiful towns and villages and thousands of rural homes, everywhere give evidence of modern prosperity and comfort. The present generation has witnessed a most remarkable transformation.

The commercial demands of this new western field are immense. A vast and growing population are consumers of the best products of this country and the world. Thousands of miles of railroad, with most luxurious and modern equipment, distribute their loads of varied merchandise and minister to the needs of the people for transportation. We have joined hands with the Pacific coast, and a constant interchange of productions is maintained with that semi-tropical region. The influence of these western and middle civilizations is modifying and will soon conquer the social rudeness of all the rougher territories intervening, until the results shall

far surpass our most daring prophecies. To say this, is not to fortell any thing; the consummation is already in sight. Yet this is still a new country, whose development was at first necessarily slow. Who then will accuse us of over-estimating the commercial importance of our field?

In every way worthy of the great northwestern metropolis is the prosperous wholesale jewelry house of Reed-Bennett Co., situated at 415-16-17-18-19 Lumber Exchange. This house handles everything that



JEWELRY DEPARTMENT AND PART OF GENERAL OFFICE

or the bringing to the surface of the mineral deposits which have awaited us for centuries. Our natural inducements became known in the march of events, and the sequel was not only natural but inevitable.

It was according to the "eternal fitness of things" that the new empire should have a new and adequate commercial center, and it is here. The opportunity existed, and enterprising business men made the most of it. Boston, New York, Buffalo, Detroit or Chicago had no more reason for their



TOOL AND MATERIAL DEPARTMENT

the up-to-date jeweler and optician needs in his business, either as stock, material or equipment—diamonds, watches, clocks, silverware, optical goods, tools, materials and findings. The members of the firm are accomplished and progressive business men. Mr. Reed is one of the pioneer jewelers of the Northwest, having started in the jobbing business a score of years ago, and is consequently conversant with its every detail and extensively acquainted with the retail trade. Agreeable in manner, energetic and enterprising, he has all the qualities that conduce to success in the wholesale business.

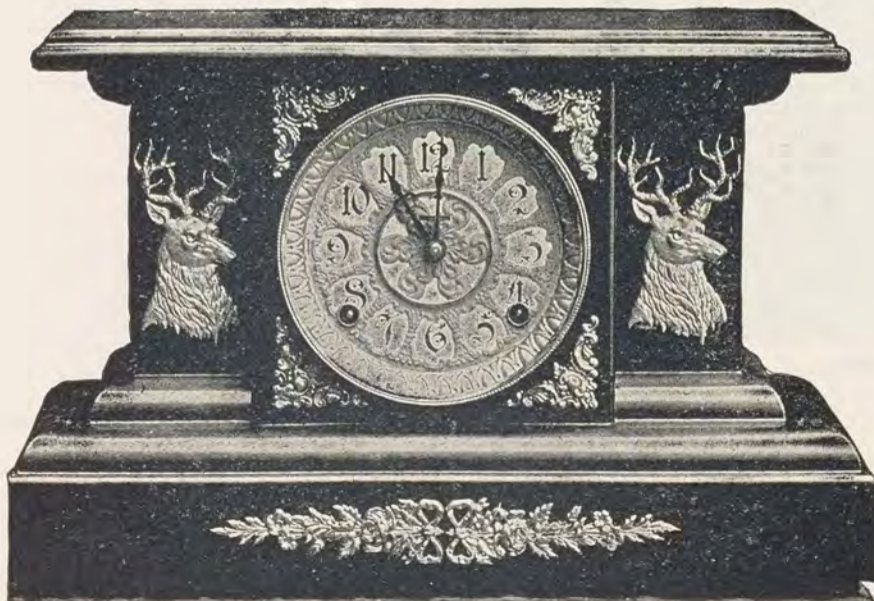
Mr. Bennett is only thirty-one years old, but has had long experience, having begun his business career when only fourteen years. He was for a time engaged in the newspaper business, but sold out to advantage to engage in the buying and selling of stocks. For the past seven years he has been identified with the jewelry business, in which a successful career seems to be assured to him.

The Reed-Bennett Co. was organized about three years ago, having purchased the assets of the old Reed & De Mars Jewelry Co. The firm does a general jobbing business, and keeps two travelers in northwestern territory all the time. About two years ago they began the manufacture of clocks, in which they have been very successful, and now turn out about 250 mantle clocks a month. These clocks are in many pretty patterns, some of which are shown on the advertising page opposite. The firm has also a repairing shop, where they do all their own repairing, and they make

besides lines of solid gold goods, such as rings, mountings, etc. They issue a large tool, material and jewelry catalogue, which is much used by the trade in their section. In connection with the manufacture of clocks, they make their own workbenches, crystal cabinets, watch racks, etc. The illustrations here shown will convey a good idea of their well-equipped establishment.

The Reed-Bennett establishment is very capacious, affording ample space for each department, and the manner in which the stock is kept and arranged, no less than the stock itself, indicates the methodic instincts of the management and the firm's thorough grasp of the business in which they are engaged. It is of much service to the trade in that section to know that right in their midst is a house which can satisfactorily and promptly supply their every want. The Reed-Bennett Co. is noted for prompt service, and the entire staff work as a unit to this end. The hands are thoroughly conversant with their individual branches of the business, and nearly all of them have had years of experience in their particular duties. This combination of choice stock, good service and liberal management is having its inevitable effect, and the firm is rapidly growing in the esteem of the trade. It is anticipated that this season will be an exceptionally prosperous one, and correspondingly large stocks have been provided in preparation for the increased trade needs.

These stocks exhibit careful discrimination in their selection, and include all the latest and choicest patterns of the factories, making easy and advantageous for the retailer the task of choosing salable fall lines. *



THE KING.



DEWEY.

Gold Marbleized base and top, with Black Background. A beautiful effect. Price, \$8.00, Order an assortment of FIVE.

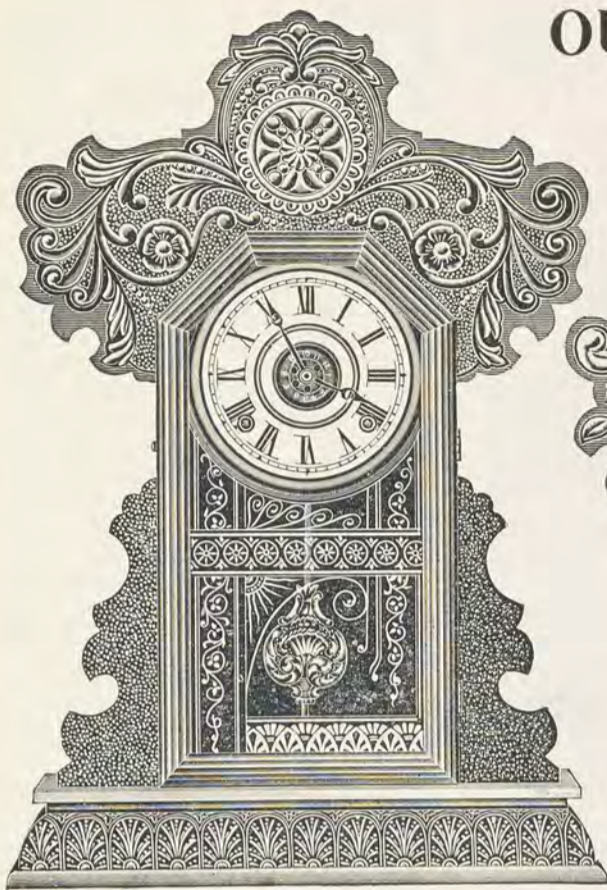
OUR NEW CLOCK ASSORTMENT,

containing Six Clocks, three of which we illustrate.

All 24 inches high, 8-Day, 1/2-hour Strike, Oak.

STAPLE ARTICLES

AT LOWEST PRICES.



TO WESTERN BUYERS:

Clocks shipped direct from Minneapolis. Saves you freight.

TO EASTERN BUYERS:

The above clocks can be shipped from the factory, which is in Connecticut, thereby insuring cheap freight rates.

OUR NEW STARS are all made of Oak with "Put on Trimmings," Embossed sides and Back-ground, Carved Base, and Fancy Octagon Topped Gold Decorated Glass Doors, Back-ground is Stained Dark, with Light Oak Trimmings. This produces an entirely new effect that is very attractive. Notice the designs, every one is DIFFERENT. Compare the Style, Size and Price with any Clock on Your Shelves, or illustrated in any Catalogue, and we will get your order. Our New Stars are fitted with Ingraham movements, and fully warranted by the manufacturers.

Price per assortment of Six as above, \$9.72 net.

Price per assortment of Six as above, all fitted with alarms, \$11.07 net.

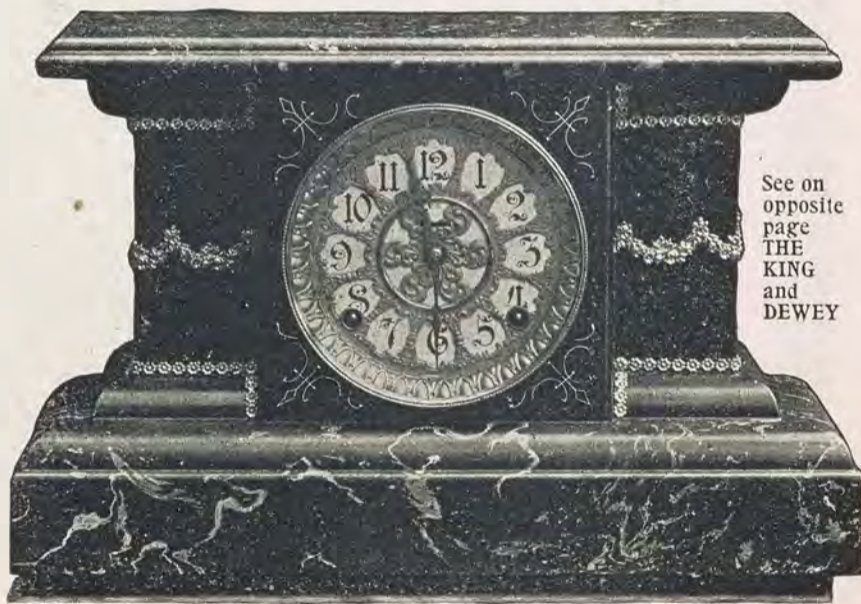


18 Size, 11 Jeweled, Seth Thomas Nickel Movement, Lever Set.
\$2.90 net.



6 Size, 11 Jeweled, Seth Thomas Nickel Movement, Lever-Set.
\$3.25 net.

CENTURY CLOCKS



See on opposite page THE KING and DEWEY

EMPRESS.

Polished Brown Marbleized base and top. Price, \$8.00.

16 inches long, 10 1/2 inches high, fitted with an 8-day, 1/2 hour rack strike, gong movement, with solid polished nickel plate. Assorted Dials.

We sell an assortment of FIVE Century 8-Day Mantle

Clocks, at one shipment, for \$16.25 net cash.

The Fifth Clock is all black, trimmed like the Empress, with a King base, and is the best-selling clock on the market. You can make a leader of the **Century Clocks** at \$5.00 retail, and increase your entire business. Remember, **Century Clocks** sell when others don't.



SULTANA.

Polished Green Marbleized base and top, Gold Trimmings. Price, \$8.00.
An Assortment of FIVE is what you want. They are sellers.

Reed-Bennett Co., Minneapolis, Minn.

732 h
1885.

THE PAUL E. WIRT FOUNTAIN PEN.

1898.

"First in Reliability and Popularity."

Over a Million Wirt Fountain Pens have been sold and are in practical daily use throughout the world.

Therefore

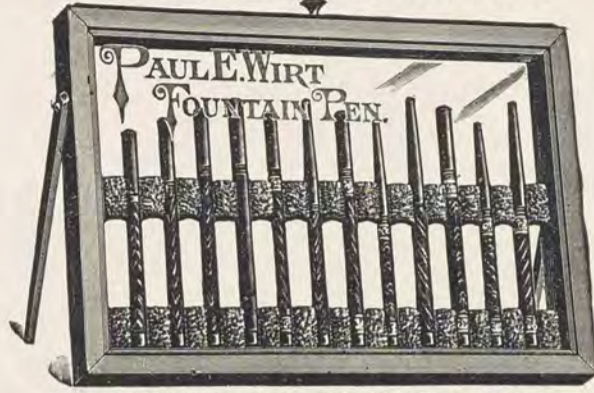
A select assortment tastefully exhibited in an attractive manner will greatly increase your sales, also percentage of profit.

The neat and practical show case illustrated, contains one dozen of our most popular and best-selling styles arranged in a particularly convenient manner for customers to examine and make selection.

Discounts liberal. If your jobber cannot supply you send orders direct.

WE CHALLENGE THE WORLD FOR ITS EQUAL FOR CONSTANT PRACTICAL USE, AND WE CHALLENGE SUPERIORITY IN THE CLASS OF GOODS.
PAUL E. WIRT FOUNTAIN PEN.

JEWELERS' SELECT ASSORTMENT.



EVERY WIRT PEN IS FULLY GUARANTEED.

Still "Remains Unequaled."

"The Paul E. Wirt was the first successful fountain pen manufactured, and it remains unequaled."
—*Boland's Book News, St. Louis.*

No charge is made for the show case which, because of its transparency, is inimitable as a fountain pen exhibitor and a most desirable piece of store furniture.

Any pen in this assortment remaining unsold at the end of six months will be exchanged for such as the dealer may conclude are more desirable.

"Mr. PAUL E. WIRT, Dear Sir:—With your pen I have been able to noticeably improve my spelling and also my standing among Christian people."
Yours truly, BILL NYE.

BLOOMSBURG, PA.

If you are competent, you can command a better salary

We can place you in a position to do everything that comes to you, and do it well. A few dollars spent at our college will give you a thorough, practical knowledge of watchmaking; it will make a practical engraver of you and a thorough optician.

HIS WORK TALKS FOR ITSELF.

COME NOW

take our course in Engraving which will place you in a position to do all work for the Holiday season.

Appreciates His Teacher.

BELMONT, OHIO, May 24, 1898.
F. W. SCHULER, Professor of Philadelphia College of Horology:—Having taken a six month course at your institution I can earnestly recommend it to any who desires to take a course in watch work, engraving and optics, and for Mr. Schuler I can say his teaching is above reproach, and he has shown himself to be possessed of tact, learning, enthusiasm, ability to govern—all the highest elements of a successful teacher. I therefore recommend him to any who desire to take a course at his institution, feeling confident that he will satisfy all reasonable expectations.
Very truly yours,
A. E. SARGENT.

WE TEACH

Jewelry Work in all branches.



EAST BRADFORD, PA., July 2, 1898.
F. W. SCHULER, Principal:—While attending the Philadelphia College of Horology, in a three months' course, I designed and engraved this plate, and finished a complete course in optics. I thank Prof. Schuler more than words can express for his attention and treatment, both in and out of college, and could not urge anyone too much to try the school in any or all of its branches.
Very respectfully yours,
GEO. H. SHIRKEY.

WE WILL

teach you thoroughly all branches of the Watch-making trade.

Came From Other Schools to Complete Their Course.

LOWVILLE, N. Y., April 27, 1898.
PROF. F. W. SCHULER: Dear Sir:—I am more than pleased with my course in engraving, watchmaking and optics, and can cheerfully recommend your College to any one who wishes to learn all branches of the jewelry and optical business. I consider it the best horological college in the United States, for the simple reason that so many students from other horological schools came while I was there to complete their course. Another great point is that men who have had years of experience in the jewelry business come to your College for instruction, so if they are benefited and receive the instruction that they want in a thoroughly practical manner, and leave the College well satisfied, then what must it be for the beginner who has not had any experience whatever. I must say that I have gained more knowledge in the short course I took than I expected to learn in twice the length of time. Thanking you for the great favors you have done and for the thorough instruction, and wishing you abundant success, I remain,
Yours very truly,
T. GASSER.

Our
Optical Course
is thorough.

We would advise you to place your application at once, as we only take a limited number of students.

WRITE FOR OUR PROSPECTUS.

Philadelphia College of Horology,

F. W. SCHULER, Principal.

1213 Filbert Street, Philadelphia, Pa.

America's Leading Auctioneer



P. J. BURROUGHS,
103 State Street, Chicago.

I have been a busy man the past seven or eight years—the long list of sales below indicate this, but, like the proverbial omnibus, I have room for a few more dates for this fall. If interested, address me as above at your early convenience. In the meantime, read what one of Cincinnati's most successful merchants has to say in regard to my methods and success in conducting an auction sale:

FROM C. J. STEINAU,
OF THE "PALACE JEWELRY STORE."

CINCINNATI, OHIO, August 5, 1898.

MY DEAR SIR:—I am pleased to express to you my appreciation of your work in my store during last November, December, January and February, and through you bring before the jewelers of the country the magnificent results obtained in the four months' auction sale you conducted for me during the above period. When I employed you to close out my extensive stock I did not imagine for a moment that it were possible for an auctioneer to make as perfect a job of it as you did. When you got through there was nothing left, not even the fixtures. Your clever methods, rare skill, constant good humor and tireless energy did the work.

The most amazing feature about the sale, and the one thing connected with it which should give most encouragement to my fellow merchants, is the fact that I had been in business for thirty-eight years, and the amount of old, hard stock I had on hand was something appalling. In planning for my auction this was the problem that confronted me—how should I get rid of my old stock without too much of a sacrifice. I began my sale with not a few misgivings and grave apprehensions on this point, but a week or two of your splendid salesmanship dispelled my fears on this subject, and the results of your up-to-date methods showed that my fears were groundless.

My sale was a marvelous one, not only in the amount of goods sold but in profits realized. I betray no business confidence, but state only the simple facts in the case, when I say that the net profits, over and above the cost of my auction sale conducted by yourself, were over thirty-five per cent.—the exact figures I will be glad to give upon application. Such results, all things considered, I truly believe have never before been equaled in any auction, and stamp you, in my humble opinion, as the prince among salesmen, and the most superb profits-getter I have ever met with.

Do you think anybody will wonder that I should recommend an auction when conducted by yourself? Certainly not. And I take the greatest pleasure in recommending your services to dealers everywhere. If I can be of any further use to you in this connection, command me.

To Mr. P. J. BURROUGHS, Chicago, Ill.

Most cordially yours,

C. J. STEINAU.

PARTIES TO WHOM I REFER:

I take pleasure in referring you to any of the undersigned, for whom I have conducted sales. I also refer you to the representatives of all leading factories and wholesale houses in the Silverware, Diamond, Watch, Jewelry, Cut Glass, Bric-a-Brac and Optical Lines, who will be pleased to inform you as to my ability.

Bohm-Bristol Company, Denver, Colo.
W. H. Beck, Sioux City, Iowa.
A. Feldenheimer, Portland, Oregon.
D. Rosenberg, Rochester, N. Y.
Clemens Hellebush, Cincinnati, Ohio.
Cady & Olmstead, Kansas City, Mo.
Anderton & Eberhardt Co., Dayton, Ohio.
M. Wunsch & Co., San Francisco, Cal.
M. German, Los Angeles, Cal.
H. Morton, San Jose, Cal.
A. I. Hall & Son, San Francisco, Cal.
C. S. Raymond, Omaha, Neb.
Steinmetz Jewelry Co., Helena, Mont.
Barre Bros. Co., Winnipeg, Man.

T. R. J. Ayres & Sons, Keokuk, Iowa.
J. W. Kelly, Carrollton, Mo.
A. H. Simon, St. Paul, Minn., 2 sales.
W. B. Clapp, Chicago, Ill.
P. Kern, El Paso, Texas.
W. T. Irvine, La Crosse, Wis.
David H. Harris, Fulton, Mo.
Wm. Ennis, Birmingham, Ala.
Joseph & Fish, Chicago, Ill.
E. Hallett, Lincoln, Neb., 3 sales.
J. G. Willeke, Springfield, Mo., 2 sales.
Baldwin & Co., St. Joseph, Mo.
A. Pinover, New York.

Wilson & Cutting, Winona, Minn.
A. T. Threadgale, Taylor, Texas.
H. Hahn, Lansing, Mich.
Worden & Morris, Fort Wayne, Ind.
C. S. Durfee, Davenport, Iowa, 2 sales.
A. Steinau, Cincinnati, Ohio.
D. Donnan & Bro., Waco, Texas.
McKee & Schunck, Celina, Ohio, 2 sales.
M. B. Wright & Co., Kansas City, Mo.
M. J. Benjamin, Denver, Colo., 2 sales.
J. H. Bihl, Fremont, Ohio, 4 sales.
John Leith, Bay City, Mich.
Austin & Hunter, Belton, Texas.

A. & J. Plaut, Cincinnati, Ohio.
Roth Importing Co., Denver, Colo., 2 sales.
The Jaccard Watch and Jewelry Co.,
Kansas City, Mo.
W. A. Pfister, Sheboygan, Wis.
Geo. Beemer, Lead, South Dakota.
O. F. Zimmerman, Jeffersonville, Ind.
W. B. Talifafero, Jackson, Tenn.
G. W. Brown, Cheyenne, Wyo.
M. German, San Diego, Cal., 2 sales.
H. H. Bisbee, Ludington, Mich.
C. W. Miller, Bloomington, Ill.
Hight & Fairfield, Butte, Mont.

Workshop Notes.

Subscribers wishing inquiries answered in this department must send name and address—not for publication, but as an evidence of good faith. No attention will be paid to anonymous communications. Questions will be answered in the order in which they are received.

EDITOR KEYSTONE.

We note several inquiries in July KEYSTONE about outside bracket and other clocks. We intend to put up a large clock outside our store with a dial not less than three feet six inches—we would like it four feet—and we don't know whether it would answer better to have a regular turret clock movement timepiece, or to have the hands worked by electric current attached to regulator inside our store. Some of your readers who have tried both might be kind enough to give us their experience. TAILSTOCK.

"*Lacquer.*"—Will you give me a recipe for preparing lacquer for silverware; also instructions for using same? The invisible collodion lacquer is prepared by dissolving soluble gun cotton in a mixture composed of ether 3 parts, alcohol 1 part. The cheaper wood alcohol can be substituted for the more expensive article distilled from grain. There is a good deal of experience required in preparing such lacquer, and our advice would be to procure the lacquer already made. Such lacquer can be applied either by dipping the article or by means of a soft camel's-hair brush. If well put on, such a coating of such lacquer is absolutely invisible.

"*Transfer Wax.*"—(1) How to make a good transfer wax?—Bleached wax 3 parts, Canada balsam 1 part, olive oil $\frac{1}{2}$ to $\frac{1}{4}$ part. The quantity of olive oil varies for summer and winter use.

(2) How to make lathe cement?—The best brown shellac 4 ounces, ultramarine blue $\frac{1}{4}$ ounce. Melt in a thick iron vessel, stirring constantly. Make into sticks for use. Ultramarine blue, although light in color, when mixed with shellac becomes a deep blue-black.

(3) A cement for filling the caps of watches so they can be engraved without bending?—Shellac 1 part, black rosin 2 parts, Burgundy pitch 1 part, yellow ochre 3 parts. Incorporate the ingredient by melting and stirring.

"*Wood Polish.*"—Will you kindly tell how to get a mirror polish on furniture—an old corner clock or table, for instance? I have seen two painters here and they contradict each other, and I am as much at sea as before I asked them.—The art of polishing wood is one very imperfectly understood even by those who practice it. In finishing a wood surface to a high polish we have two lines to work upon: (a) A polished surface showing the grains and markings of the wood through a transparent medium of glassy smoothness on the surface. (b) Wood painted and the surface finished with a transparent varnish which, as before, is finished to regularity and smoothness of plate-glass. We will now take up and consider the methods of finishing under class (a):

How Musical Instruments of Wood are Polished

Elegant specimens of this kind of work are to be seen on fine musical instruments like the backs of guitars, high-grade pianos and expensive cabinets for curios, etc. The process of finishing such work is as follows: The surface of the wood is smoothed by means of sandpaper to a dead flat finish, that is, if the object has a flat surface. To explain, if we are dealing with, say, a flat panel of mahogany, such flat surface should be flat, not waved, with a smooth surface. The governing idea can be got by comparing plate-glass with ordinary window-glass. To afford such surface to the "hard wood finisher" is the province of the wood worker, but the finisher should know exactly what he wants and insist on getting it. The surface of the wood should also be smooth, that is, have no tool marks or lines from coarse sandpaper showing on it. We have now got to the operation of producing a perfect polish on such flat surface. The first operation is to fill the grains of the wood so that the subsequent coats of varnish will not sink into the open spaces of the grain, leaving small indentations of the form of the grain of the wood. We have on the market innumerable "wood fillers" for this purpose, many of which are excellent, and when understood and properly applied are to be relied upon. The chief material of such fillers is usually cornstarch mixed with some substance to harden it when dry. Ordinary whiting is another good substance for a filler. Both of these substances have the property of disappearing, so to speak, on the application of a true varnish, that is, a varnish makes them transparent. Glue diluted with water until it is barely fluid at 60° F. is also a good menstrum for mixing with a filler.

Let us continue practically the idea of finishing a mahogany panel. If a full red is desired we give the surface of wood a coat of whitewash, that is, a mixture of freshly slacked lime and water, allowing the lime to dry on the wood and stand for forty-eight hours. The alkaline action of the lime bringing out a fine red tint unobtainable by any stain. The lime is now rubbed from the surface with a soft woolen cloth, leaving a considerable portion of the lime in the grain of the wood to act as a filler. For further filling, a coating of glue and water of the consistency above described is mixed with cornstarch and applied as was the whitewash. It is well to give the cornstarch a red stain by adding a watery decoction of ground camwood, or some of the red aniline colors known

as diamond dies. Whiting prepared with weak glue as above is preferred by many finishers to cornstarch. After the wood surface is perfectly dry, that is, all the water from the whitewash and glue filler has evaporated, the surface of the wood is carefully gone over with fine sandpaper to smooth it, because the application of water has a tendency to "rise" the grain of the wood. If the distemper coat, that is, the coating of glue and starch, or whiting, has been properly managed, the grain of the wood will be perfectly filled and the application of fine sandpaper will leave a surface like ground glass, that is, dead smooth but without polish. At this stage it is usual to give the job a coating of quite thin shellac varnish; such varnish being mixed with cornstarch or whiting to perfect the operation of filling the grain of the wood. For red mahogany dragon's blood, a resinous gum, is added to the shellac and alcohol to give a red color to the varnish.

Preparing Wood for Polishing

After becoming perfectly dry, which will require at least forty-eight hours, a final sandpapering should be given with the finest sandpaper obtainable and the surface dusted with a coach-painter's "duster," a round bristle brush much resembling a large paint brush. We have now arrived at the first stage of applying true varnish. The varnish to employ is coach-painter's rubbing varnish. The reason for using coach-painter's varnish is because it is a true copal varnish and thoroughly well made, and has to be to fill the coach-painter's requirements. It may not be amiss at this point to say that we have in the arts only two substances which make really hard serviceable varnishes, and these are amber and gum copal. Other gum resins, including mastic, damar, shellac, etc., yield only comparatively soft varnishes. We have neither time or space to go into the comparisons of varnishes; all we need say at this time is that good copal varnish is the only reliable one for our purpose. Copal furniture varnish may be good, but it is so often bad that it is safer to buy best coach-painter's rubbing varnish of a reliable house. A coating of such rubbing varnish is now given to the surface of the wood and allowed to dry hard, after which the surface is again sandpapered, and a second coat of copal varnish applied. At this point comes the critical period of wood polishing in its most perfect state of the art. To obtain the best results the second coat of copal rubbing varnish should be allowed to dry for six months. This is done to allow the varnish which has permeated the materials used as a filler to perfectly dry and shrink to its uttermost. The importance of this delay will become manifest on the inspection of rather fine specimens of wood polishing on cheap guitar backs as they begin to age.

Why Some Musical Instruments Made of Wood Lose Their Polish

On close inspection by reflected light we will see the filling in the grain of the wood has shrunk after the surface was polished. By allowing prolonged drying such "falling in" of the filling will not occur. After the perfect drying of the second coat the surface is again sandpapered with fine sandpaper and a third coating of varnish applied, which is allowed to dry for at least six days. This coat of varnish is rubbed with pieces of new cotton flannel, folded flat to five or six thicknesses, employing fine pumice stone sifted through a fine mesh hair sieve. To do this work, dip the folded cloth in water and then into the fine pumice stone powder and proceed to rub the surface of the varnish until entirely depolished and all varnish waves and brush marks disappear. The varnished surface is now dull and lustreless, but the gloss can be restored by first washing the surface with pure water to remove all particles of pumice stone powder and then wiping the surface with a clean chamois skin wrung out dry from the rinsing water.

Perfect Wood Polishing Process

The polish is produced by rubbing the varnished surface with a piece of woolen cloth folded as the cotton flannel was, but moistened with olive oil and dusted with pulverized rotten stone. The best cloth for this purpose is known as super-fine ladies' cloth folded to six or eight thicknesses. The action of the rotten stone and oil polishes the surface of the varnish, but the oil leaves a smear which can be removed by dusting a soft, well-worn, old linen towel with rye flour and giving the surface a thorough dry polishing. The above method is the one employed by the high-grade piano factories. For violins and guitars a hard spirit varnish made from bleached shellac is substituted for copal as above. We will now consider polishing wood under heading (b), that is, painted surfaces. This process is in all respects the same finish as we find on fine carriage bodies. The operation is performed as follows: The properly smoothed surface of the wood is "primed," that is, given a coat of lead color prepared by mixing commercial white lead ground in oil with a little lampblack, and spirits of turpentine added to make it spread easily with a brush. About three coats of such lead color are applied, giving the surface a careful sandpapering after each coat is dry. Next is applied a coat of "rough stuff" made by mixing about one-sixth of the weight of the ground white lead with dry yellow ochre, adding turpentine to make the color flow. Add half a gill of japan dryer to each pint of the color. This coat is applied quite thick and allowed to dry for five or six days.

Smoothing Before Polishing

Next comes the "rubbing down," which operation consists in rubbing away the coating of rough stuff with bits of pumice stone ground flat on one side by rubbing on an old large file. The rubbing is performed with water, wetting the surface with a sponge and rubbing the painted surface. If the reader can get to see a carriage-painter "rub down" a coach or buggy body he will learn more in five minutes than by reading for an hour. As stated above, the rubbing is continued until the coat of lead color is dead smooth—

perhaps in a few depressed spots and corners there may be a trace of the rough stuff, but on the average surface it is entirely removed. For putting up nail holes and cracks a putty is made up of dry white lead and rubbing varnish, darkening the mixture with lampblack to the color of the lead color used for priming the wood. After the rubbing wash the work thoroughly with water and wipe dry with a chamois skin, also called "wash leather." The color is now to be applied, and can be had from coach-painter's supply houses, and comes ground in painters' japan. If black is desired, use drop black ground in japan. The first coat of color is applied by mixing the ground color as it comes in the cans with simple turpentine to a thin fluid, and apply with a flat camel's-hair brush. Such color will dry without gloss, and in painters' phrase dries "flat." On this coat of dead color is laid a coat of "color varnish" prepared by adding, say, one-tenth of the volume of the color ground in japan to plain rubbing varnish. This is called colored varnish, and should not be mixed with any substance except perhaps a little japan dryer to expedite drying.

High-Grade Wood Polishing

Never add turpentine to varnish, it kills the gloss. It requires skill, which can only be acquired by practice, to lay varnish properly. After the color varnish coat is dry, rub the surface with a handful of curled hair such as the upholsters use; then apply a coat of clear rubbing varnish, proceeding precisely as was directed for the plain wood finishing. The final polish with rotten stone is also done the same way. We have been led to speak thus at length about the finishing of wood from the fact that many people in the jewelry trade handle pianos which can be restored by the processes given above. Pianos in black finish are done by the coach-painting process as above. The beautiful mirror polish on high-grade pianos can never be obtained except by polishing. An old lustreless piano case can be restored by giving it one coat of rubbing varnish, and then repolishing as we have described. Where deep scratches are in the varnish touch the scratch with a fine-pointed pencil brush filled with rubbing varnish to which a liberal dose of japan dryer has been added—in fact, fill the scratch with rubbing varnish, then sandpaper smooth, revarnish and polish as directed.

"*Sticky Fly-Paper.*"—Will you kindly tell me how to make sticky fly-paper?—The ingredients employed are: Rosin 14 parts, Burgundy pitch 4 parts, molasses 4 parts, linseed oil 4 parts; combine by heating and stirring. Apply while hot with a brush to well-sized paper. Ordinary news-paper can be made use of if dipped in weak glue water and dried. If unsized paper, that is, paper which does not have a goodly quantity of glue in the body of the sheet, is used, the sticky composition sinks in, and much of the efficiency is lost. Size and glue are synonymous terms with painters and paper makers.

"*Anaroid Barometer.*"—I have an anaroid barometer the vacuum chamber of which is defective. The barometer is of the style with a very strong spring and a post through the vacuum chamber, the spring pulling the chamber apart. I would like it if you can afford space to give me the principles on which such barometers are constructed. I think I could solder the break in the vacuum chamber, but do not know exactly how to go about it. If I should compress the chamber, and then solder up the break would the barometer work? Any information would be duly appreciated.—We think you are mistaken about a post extending through the vacuum chamber. Usually, a stud or post extends each way from the vacuum chamber, one of these studs being secured to the case of the instrument and the other to the motion works which moves the hand. There are a great variety of these instruments, but they are almost all constructed on the same general principles, which consist of a lever resting on a hollow drum more or less exhausted of air. Most makers do not entirely exhaust the air, but leave, say, half pressure. That is, say the full air pressure is fifteen pounds to the square inch, the barometer maker pumps out a portion of the air and leaves only seven or eight pounds atmospheric pressure to the inch. This policy enables him to adjust the air pressure to his dial mechanism. We do not think you could exhaust the vacuum drum enough by the plan you propose. If you desired nearly full exhaustion you could accomplish it by putting a few drops of alcohol in the vacuum chamber and then drilling a small hole, say the size of a dressing pin, in the wall of the chamber. The split or crack is next soldered up, and the chamber heated until the alcohol vapor forces the contained air out and alcohol vapor filled the chamber. Now solder up the drilled hole, and the chamber on cooling will approximate a vacuum by the alcohol vapor condensing. The chamber would now work, and the result could be modified by the spring you speak of. A barometer so repaired might not read to correctly correspond to mercury inches as is usually the case with anaroid barometers, but it could be used to prognosticate the weather nearly as well as if it indicated the height of a column of mercury balancing atmospheric pressure. As, for instance, an anaroid barometer so repaired would indicate the rising or falling equally as well as one that showed on its dial fluctuations to correspond to mercury inches.

"I have preserved The Keystone since 1884. It is all right, progressive and up with the times, with an eye watchful to constant improvement, and I could not be persuaded to do without The Keystone."—J. R. Cleaves, jeweler, Gardiner, Oregon.

You Can't Make a Mistake by laying in a good supply of ^{732 k} Movements from this page. Restoration of Peace is certain to give impetus to all trade. Will particularly make a big demand and a shortage in Movements.

PRICES NET CASH.



16 and 18 Size, Hunting and Open-Face.

- No. 7. Patent regulator, adjusted to heat, cold, position and isochronism, nickel . . . \$32.90
- No. 6. Patent regulator, adjusted to heat, cold, position and isochronism, gilt . . . 22.56
- No. 5. Patent regulator, adjusted to heat and cold, nickel . . . 23.50
- No. 4. Patent regulator, nickel . . . 21.15
- No. 3. Patent regulator, adjusted to heat and cold, gilt . . . 16.92
- No. 2. Patent regulator, gilt . . . 14.57
- No. 1. 15 ruby jewels, hunting only, gilt . . . 12.09



16 Size, New Columbus, "Ruby."

3/4 plate, nickel, 21 genuine ruby jewels, set in red raised solid gold settings, escapement cap jeweled, adjusted to temperature, six positions and isochronism, solid gold train, Breguet hairspring, patent center pinion, patent regulator, polished stem-wind, pearled plates, fine white cut and beveled edge, hard enameled, double sunk, red marginal figured dial, handsomely damaskeened in gold on nickel.

RUBY Hunting and Open-Face.
Regular Price, . . . \$30.00
Cut Price, . . . \$14.00



16 Size, New Columbus.

3/4 plate, nickel, 17 genuine ruby jewels, set in red raised gold settings, adjusted to temperature, four positions and isochronism, Breguet hairspring, patent center pinion, patent regulator, pearl plates, fine white hard enameled, double sunk, red marginal figured dial, handsomely damaskeened in gold on nickel.

No. 11 Hunting and No. 12 O. F.
Regular Price, . . . \$20.00
Cut Price, . . . \$9.00



Menlo Park, 17 Jewels, Nickel or Gilt, Adjusted.

Nickel, 17 jewels in composition settings, adjusted, Breguet hairspring, patent regulator, bright flat screws, elegantly engraved and damaskeened, Arabic or Roman dial, red marginal figures, moon hands.



18 Size, Rockford.

Nickel, 17 jewels, fully adjusted, double sunk glass enamel dial, Breguet hairspring, patent micro-meter regulator, damaskeened on nickel.

No. 81, Hunting. No. 61, Open-Face.
Regular Price, . . . \$14.00
Cut Price, . . . \$9.50



18 Size, U. S. Watch Co.

Fine gilded movement, 15 ruby jewels in settings, safety pinion, hardened Breguet hairspring, compensation balance, adjusted patent regulator, double sunk or fancy dial, morning-glory hands.

No. 43, Hunting Only.
Regular Price, . . . \$8.25
Cut Price, . . . \$5.60



18 Size, New York Standard.

Nickel damaskeened, 7 jewels, quick train, safety pinion, sunk second dial, full plate.

No. 34, Hunting. No. 35, Open-Face.
Price, . . . \$1.65



18 Size, Century.

Hunting and Open-Face, made by Seth Thomas, lever-setting, 3/4 plate, 7 jewel, quick train, stem-winding and setting, nickel finish, damaskeened, hard enamel dial with depressed seconds, fit all makes of cases, the latest and best American-made low-priced watch movement.

Price, . . . \$1.65



6 Size, Rockford.

Nickel, 11 jewels in settings, tempered hairspring, sunk second dial.

**No. 153. Regular Price, . . \$6.00
Cut Price, . . . \$4.90**



6 Size, U. S. Watch Co.

Gilt, 11 jewels, top plate jeweled in settings, safety pinion, compensation balance.

**No. 65
Price, . . . \$4.60**



6 Size, Illinois Watch Co.

Nickel, 7 jewels, lever-set, safety pinion, compensation balance.

**No. 149
Price, . . . \$3.05**



400 Size Hampden.

7 jewels, gilt, finished with bright flat screws, sunk second, plain hard enamel dial, spade hands, regular "Hampden" mainspring.

Price, . . . \$5.10
Open-face movements come with second-hand Fitted in 14 K 26-Year Hunting Case . . . \$10.20
In Open-Face Case, same quality . . . 9.75

Paillard Non-Magnetic New Improved Movements, 18 AND 16 Size, Stem-Wind, Hunting or Open-Face.



F. Nickel, adjusted to temperature, isochronism and positions, 21 extra fine ruby jewels in gold settings, compensation balance with gold screws, patent regulator, Breguet hairspring, double sunk glass enamel dial, elaborately damaskeened in gold, with black enamel lettering.

F. M. Magnetic, same description as F, with steel hairspring and balance, engraved Paillard Watch Co.

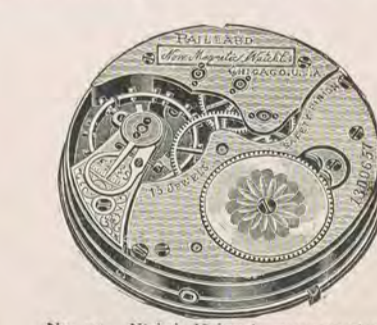


G. Nickel, adjusted to temperature and positions, 17 jewels, compensation balance, patent regulator, Breguet hairspring, double sunk dial, handsomely damaskeened in gold lettering and gilded steel work.

G. M. Magnetic, same description as G, with steel hairspring and balance, engraved Paillard Watch Co.



New No. 71. Nickel, adjusted to temperature, isochronism and positions, 21 extra fine ruby jewels in gold settings, compensation balance with gold screws, patent regulator, Breguet hairspring, double sunk glass enamel dial, dust band, elaborately damaskeened in gold with black enameled lettering.



No. 74. Nickel, 15 jewels, compensation balance, patent regulator, Breguet hairspring, dust band.

No. 74 M. Magnetic, same description as 74, with steel hairspring and balance, engraved Paillard Watch Co.

Descriptive Confidential Price-List, with full information, mailed on request of any regular jeweler.

A. C. BECKEN, THE CHICAGO WHOLESALE JEWELER, 103 State Street, Chicago, Ill.



MATCH BOXES,
\$6.00 Dozen.

Silver-Plated and Oxidized
Send to us for our 1898 Catalogue of Watches, Diamonds, Jewelry, Silverware, Cut Glass, Clocks, etc.

J. T. SCOTT & CO., 4 Maiden Lane, New York.



United States Smelting AND Refining Works

M. WOLLSTEIN

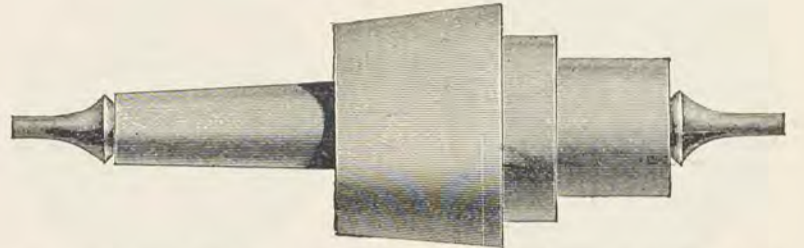
25 JOHN ST., NEW YORK

Sweep Smelters, Assayers and Refiners

Highest prices paid for OLD GOLD and SILVER, PLATINUM SCRAPs and all kinds of BULLION.

Material returned in original state if remittance not satisfactory.

LARGEST RETURNS MADE FOR SWEEPS.



Genuine American Delhi Material Co.'s Balance Staffs and Jewels, for all makes of American Watches, at \$1.25 per dozen.

Waltham	18, 16, 6, 0 sizes.
Elgin	18, 16, 6, 0 "
Hampden	18, 16, 6 "
Columbus	18, 16, 6 "
Illinois	18, 16, 6 "

These STAFFS and JEWELS are superior to any in the market for the money.

We also have a very fine Mainspring for all makes of American Watches, warranted against breakage or setting in the barrel, at 75 cents per dozen. Tool or Material orders filled from any catalogue, and a cash discount allowed. Our stock is complete. Send trial order.

ROSENZWEIG BROS.,

SUCCESSORS TO DELHI MATERIAL CO.,

WATCHES, DIAMONDS AND JEWELRY.

52 Maiden Lane, NEW YORK.



MARINE CHRONOMETERS

MANUFACTURED BY

John Bliss & Co., 128 Front St., New York.

We have on hand a number of Chronometers, by various good makers, not new, which have been in service for purposes of navigation, and are excellent instruments. They have been put in perfect repair, and will give satisfactory results as to performance. We will sell these Chronometers at low prices, either for cash, or on accommodating terms to suit special cases, or will hire them at moderate rates and allow the hire to apply on purchase.

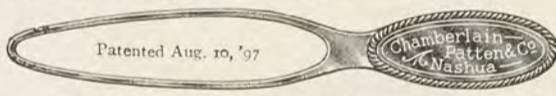
SEND FOR CIRCULAR GIVING PRICES AND TERMS.

GLOVE BUTTONER SOUVENIR for advertising.

Never thrown away.

To be given to customers. Help you sell jewel glove buttons.

Name and address on one or both sides.

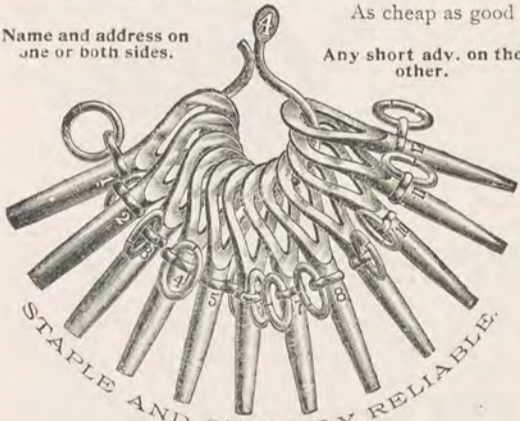


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As cheap as good printing and more effective.

Any short adv. on the other.

Made of steel in one piece, nickel-plated.



Clark's Celebrated Loop Watch Keys.

Bicycle Sundries, Manicures, Tweezers, Key Rings, etc.

Send for samples and prices.

A. N. Clark & Son
Plainville, Conn.

H. J. WILBY,
Auctioneer to the
Jewelry Trade

325 Ellicott Square

BUFFALO, N. Y.



CORRESPONDENCE INVITED.

CAN YOU DO BETTER?

Advertise yourself for one cent per day.

A CHRONOMETER

is the best advertisement you can use, either in the window or on the counter case. We have a large stock to select from, reduced to net cash prices to the trade.

RIGGS & BROTHER,
310 Market Street, PHILADELPHIA, PA.
Write us before purchasing.



RAVEN

There is but one—he sells jewelry stocks for established jewelers and goes any where in America. He is always successful, principally because he knows his business. He gets good profits on everything he sells—that's what pleases the jewelers. That profit-getting business leaked out among the trade, one jeweler told the other on the Q. T. that **Raven** made him a good profit above all expenses, and it went the rounds—they all know it now. Any jeweler **Raven** ever worked for speaks a good word for him, which accounts for the many sales he is making.

When you make your sale this fall don't fail to engage **Raven**—he is alive and wide-awake; he creates a demand for your goods, gets the best class of people to attend the sale; they can't stay away, but come every day as long as the sale lasts. He works up enthusiasm, which enables him to sell large quantities of goods at good profits for spot cash. He knows what he can do, and does it, and guarantees success or no pay.

Does anybody else want to make money? does anybody else want to make successful sales? Then don't hang fire, don't be prejudiced, don't wait until your competitor holds one—you'll be mighty sorry if you do.

Address, **JOHN H. RAVEN**, Holland, Mich.

T. R. J. AYRES & SONS

733

Webster-Whitcomb Lathes. Write for prices.

Oak Curtain-Top Benches. \$16.00 net cash.

Globe Ball-Bearing Foot-Wheels. \$10.00, less 6 per cent.

Three styles. All about them for the asking.

The largest and best equipped Tool and Material Department West of the Mississippi.

Send a list of your wants from any catalogue, and let us quote you our prices.

KEOKUK, IOWA

Do You Want Ready Money? If so, a Successful Auction Sale Will Put You on a Cash Basis

Before the new goods arrive would it not be advisable to take from three to five thousand dollars worth of old goods and convert them into cash? I will guarantee you 100 cents on the dollar, and you can buy new goods for about one-half what you paid for the goods you bought a couple of years ago. An Auction Sale is a business builder. People are quick to find out you have sold your old goods, and will patronize your store because your goods are all new. While your competitor is resting easy with his old stock, you will be kept busy waiting on customers that have not been in your store for years. New, catchy goods, bought for cash, is the only way you can do business from now on and make money. If you have not got the cash, I can get it for you. If an auction sale is good for other dealers—the best in the country—why is it not a good thing for you? Write to any one I have ever made a sale for, and see what they say about it. Drop me a line, and I will tell you what I can do for you. If you want to sell out, I will pay spot cash for jewelry stocks in any part of the country, and let you out in two hours after I reach your city. I can afford to pay more for stocks than any other man in the business, for I have an outlet for the goods and a great many prospective buyers on my books. Write me what you have.

To My Brother Jewelers:—It is with pleasure that I recommend Mr. F. P. D'Arcy, as a jewelry auctioneer. He made a very successful sale for me, and closed out my entire line in one-half the time I had expected. The prices realized were far beyond my most sanguine expectation, and I can more than congratulate myself upon the selection I made, for it meant hundreds of dollars to me, for I feel no man could equal the prices he realized; it far exceeded the retail price asked in many instances. I would be more than pleased to answer any communication in regard to Mr. D'Arcy's ability; also consider him the most agreeable business man I have ever met. Very respectfully yours,
HERMAN ENGLE, Wilkesbarre, Pa.

Now, more than ever, we can breathe easy; for months we did not know what to do to raise money to pay our outstanding bills, and as we were forced to, we decided upon an auction sale; but felt as if we were doing the next thing to going into bankruptcy. But an auction sale has no more terrors for us; we have tried it, and are so well pleased with our experience, that we will run a sale every second year hereafter. We were positively afraid that our goods would be given away; but to our amazement we got prices that we would have been afraid to ask at private sale. We wish to say right here that any jeweler that wants to get out of debt, and wants to get rid of old stock, should not hesitate for a minute, but get F. P. D'Arcy, the greatest of all auctioneers, to conduct the sale. He is a master of his business in every respect, and the most remarkable thing is our trade since the auction is far better than it has ever been before. It seems to wake people up, and they are more than interested in buying our class of goods. We are so well pleased that we heartily add our name to the long list of Mr. D'Arcy's references, and will write any one in full that desires a personal letter from us.

WHEELER & SHEPARD, Penn Yan, N. Y.

One of the pleasantest tasks of my life is to pen a few lines recommending Mr. F. P. D'Arcy, the jewelry auctioneer. He opened a sale for me during our coldest and most disagreeable weather, and the manner in which he handled my sale was a revelation to us. No one that has not heard him on the stand can appreciate his work. I have not heard many auctioneers, but when a man can average me 125 on the dollar, over and above all expenses in the month of February, he is certainly deserving of the highest praise. He left my store in the best possible condition, selling every piece of old shop-worn goods, and that without a single misrepresentation. My business has been better by far since the sale, and I will have a sale at least every two or three years hereafter. I cheerfully recommend Mr. D'Arcy to any one wishing an auctioneer.

A. SID JOHNSON, Hannibal, Mo.



We have held, in the last ten years, three auction sales, and we have no hesitancy in saying that the most important step a jeweler ever took is when he selects a jewelry auctioneer. It means success and thousands of dollars if you select the right man; it means a failure, humiliation and loss, if the wrong selection is made. I had three sales; one by the leading auctioneer of New York, one by one of the most extensively advertised in THE KEYSTONE, and my last sale was conducted by Mr. F. P. D'Arcy, of Chicago. It was so different to my other sales that I can hardly call it by the same name. It was simply an avalanche of business that we were utterly unprepared to take care of, and for over two weeks the crowd packed the store to suffocation, and it took three people to wrap up the goods. Talk about speed and endurance, it cannot be believed that a man can stand up afternoon and evening and talk with the speed Mr. D'Arcy does, without being entirely exhausted. But it seems to be second nature to him; his oratory simply holds the people spell bound, and he has convinced me that he can get any price he wishes for any article he puts up, and net profits run over twenty-five per cent., over and above all expenses, which we will make a sworn statement to, and we feel that we cannot speak or recommend Mr. D'Arcy too highly for his services to us. Write us for particulars.
SCHLINTZ BROS., Defiance, Ohio.

Mr. F. P. D'Arcy, of Chicago, has just closed a sale for me, and I wish to state that I am more than satisfied with the prices and amount of business done. My sale lasted two weeks, and the audiences attracted were the very best in our city. There is no question in the world but what an auction sale is a great benefit to any dealer; it disposes of old goods, gets people woke up, strengthens the repair business, and the best of all, makes a merchant independent of jobber or banker. I pay spot cash and find the benefit derived from my sale is far reaching in more ways than one, it is an education that no man can do business to-day without. The advice I received and the points I got in running my business, more than paid me for any expense I went to, if I did not derive a dollar's worth of benefit in any other way. I can cheerfully add that the success of my sale was due to the masterly efforts of F. P. D'Arcy, the jewelry salesman, of Chicago. He is a polished gentleman, a fine orator, and a salesman that establishes a confidence with his audience that is simply marvelous in the short time he was here. In case I have another sale he is the only man I would think of employing, as he is a practical man, and never makes a misrepresentation in any way.
O. C. ZINN, Hastings, Neb.

To the Public:—Mr. D'Arcy, of Chicago, has this day closed a sale for me, after a three week's run through the warmest weather, and I am more than satisfied with the success obtained. Our prices were satisfactory in every respect, averaging over 125 on the dollar, and our daily sales ran from two to five hundred dollars per day. It seems to be no trouble for Mr. D'Arcy to hold his audiences for hours and hours at a time, and the prices realized at auction far surpassed our most sanguine expectations. I have had one sale before, by a prominent New York auctioneer, but really did not know what an auctioneer of ability meant until I had heard Mr. D'Arcy sell. I will be more than pleased to answer any letter sent to me in regard to Mr. D'Arcy's ability and his manner of conducting sales.
Aug. 17, 1868.
S. W. BRAMLEY, Kingston, N. Y.

F. P. D'ARCY, 3547 Prairie Ave., CHICAGO, ILL.

From Pittsburg's Largest and Most Palatial Diamond and Watch House.—After five weeks of the most successful sale of strictly high-class goods ever conducted in our thirty years' business career in Pittsburg, it is but just and right, and a pleasure to us, to bestow a slight token of our appreciation where it justly belongs. Through a mistake on our part, we advertised our sale extensively for three weeks without noticing the grave mistake we had made in the date. Mr. D'Arcy, the salesman we had selected, had given us the earliest date he could open sale and not conflict with his previous booked sales. After we had spent hundreds of dollars in advertising, we telegraphed permission from Mr. D'Arcy to substitute another man for the week until he arrived, knowing it would be detrimental to him. On account of our great expense he consented. We opened the sale on the day advertised, and for three days the auctioneer did fairly well, but at the end of that time the sale was dead. Mr. D'Arcy arrived the following Monday and immediately took charge, and such a revelation no man but those connected with the store could ever believe. In three hours the store could not accommodate the crowd, the prices almost doubled, the sales ran into the thousands, and for five weeks it was one surprise following another, as each succeeding day eclipsed the former; and at the end our \$75,000 stock looked as if it could not withstand another day. We feel under great obligation to Mr. D'Arcy for his great efforts in our behalf, and taking into consideration that there were three other jewelry sales going on at the same time, his success should be all the more gratifying. We wish to state that any dealer, no matter who he may be, or how expensive his stock, takes absolutely no chance in injuring his reputation, or losing a dollar, by turning his store over to Mr. F. P. D'Arcy. He will not only get you 100 cents on the dollar for your stock, but will sell thousands of dollars' worth of goods that could not be sold at private sale under any condition or circumstance for over 50 cents on the original cost. We have heard very near all the prominent auctioneers in the country, and unhesitatingly pronounce Mr. F. P. D'Arcy the leading light in his profession.
DR ROY BROS., Pittsburg, Pa.

I refer you with pleasure to the following firms for whom I have worked; any one will be pleased to give you any information you wish in regard to my ability and commercial standing.

H. G. Huffman, Clyde, Ohio.
Sheff Bros., Wheeling, W. Va.
Donaldson Jewelry Co., Des Moines, Iowa.
F. Loehmeyer, Cincinnati, Ohio.
J. B. Settle, Bowling Green, Ohio.
W. B. Piper, Ashland, Ill.
Powers & Hayes, Norfolk, Neb.
G. W. Sherman, Denver, Colo.
Wm. Ragland, Waco, Texas.

R. R. Rogers, Manning, Iowa.
Smyth & Ash, Rochester, N. Y.
O. C. Zinn, Hastings, Neb.
Otto Berner, Le Mars, Iowa.
Schlitz Bros., Defiance, Ohio.
A. Sid Johnson, Hannibal, Mo.
De Roy & Son, Pittsburg, Pa.
Herman Engle, Wilkesbarre, Pa.
Wheeler & Shepard, Penn Yan, N. Y.

M. Gitler, Calumet, Mich.
S. W. Bramley, Kingston, N. Y.
Parrett & Co., West Union, N. Y.
F. R. Kay, Creston, Iowa.
F. Loehmeyer, Newport, Ky.
C. G. Alford, New York City.
Lapp & Flershem, Chicago.
Rich & Allen, Chicago.

Benj. Allen, Chicago.
Goldburg Bros., Cincinnati, Ohio.
Johnson Jewelry Co., Pittsburg, Pa.
Arnstine Bros., Cleveland, Ohio.
Heintz Bros., Buffalo, N. Y.
A. Roseman, 11 Maiden Lane, New York City.
Manhattan Jewelry and Silver Co., Lyons, N. Y.
Van Bury Bros., Rochester, N. Y.

Items of Interest.

D. T. Kiess, Eden, Ohio, spent two weeks of the past month seeing the sights at the Omaha Exposition.

A lamp exploded last month in the store of E. A. Kersting, Plainfield Wis., and caused a fire which did damage to stock and fixtures to the extent of \$350, fully insured.

The Eugene Deimel Co., wholesalers, Detroit, Mich., have greatly enlarged their clock department and have stocked it with a complete line of the latest foreign and domestic novelties.

The musical merchandise department of S. F. Myers Co., New York, has been greatly enlarged. They have added a handsome wall case which exhibits a complete line of string instruments, including the celebrated Gold Medal.

S. & S. Goldsmith, of Reading, Pa., spent a week in New York City last month buying goods for the fall trade. Though jewelry is but a part of their business, their purchases were quite heavy. Both felt confident of a much better trade than has been experienced for years.

J. L. Eno, with A. B. Smith & Co., Haverhill, Mass., for nine years, and previously with J. Johnston, of Lowell, Mass., has taken a post-graduate course in retinoscopy and ophthalmoscopy with the Julius King Optical Co., New York, and will start in business for himself in Haverhill, Mass.

J. Miller, a graduate of the Canadian Optical School, Toronto, Ont., will have charge of an elegantly appointed new optical department in the store of D. R. Dingwall, Winnipeg, Man. Winnipeg is an excellent field for Mr. Miller, and we wish him every success.

One of the trade manufacturers who are experiencing a rush of orders is H. F. Barrows & Co., chain manufacturers. Mr. Ira Barrows, of the firm, states that despite the large addition built to the factory at North Attleboro, last spring, they are unable to keep up with orders, and are now placing additional benches in every conceivable place in the factory. He said they have been compelled to ask the indulgence of their customers on their orders, and suggests to all others the advisability of placing future orders as far ahead as possible.

L. A. Wise has started a repair business in Mt. Sterling, Ky., and expects to put in a small stock later.

The J. D. Bergen Co., manufacturers of rich cut-glassware, whose factory is located at Meriden, Conn., and office and salesroom at 38 Murray Street, New York, have issued a handsomely illustrated catalogue and price-list of their products, a copy of which will be found useful by every jeweler who handles cut-glassware. The catalogue shows cuts of a large variety of articles and all the patterns are beautiful in design and execution.

The annual convention of the Nebraska Retail Jewelers' Association will be held in Omaha in October. A large attendance is likely because of the irresistible attraction afforded by the Exposition.

H. F. C. Schneider, Dubuque, Iowa, has moved into a new store very close to his old location.

The Faneuil Watch Tool Co., of Boston, Mass., has just completed a large brick and brownstone addition to its factory. This building will be used for a forging, hardening, polishing and grinding department. This company is to be congratulated that it has not only held its own, but has been able to increase its plant during the hard times we have recently passed through.

A cloth-bound volume of some two hundred pages that should prove very interesting to watchmakers and horologists generally, is entitled "Antique Watches, and How to Establish Their Age." The book is compiled by Henry G. Abbott, and published by George K. Hazlitt & Co., Chicago, and contains portraits and biographical sketches of the celebrated watchmakers of the world, and a directory of over 6000 names of English, French, German, Dutch, Swiss and American watch and clockmakers who were in business prior to the year 1850. The book is illustrated with numerous half-tone illustrations of watches and clocks made by the masters of horology.

G. A. Brummer, of the firm of Brummer Bros., Clinton, Iowa, who was quite ill for a few weeks, is once more about and looking after his business interest.

J. H. Baldwin, of Lancaster, Wis., is compelled by ill health to retire from business. Twice in the last six months he has been under the surgeon's knife, but is now better, and trusts he will regain his health before the new year.

A. R. Staufenbeil, of Dubuque, Iowa, is at last in his new store, and a gem of a store it is. Mr. Staufenbeil seems to have used perfect taste in the fitting up of his new establishment.

C. F. Herrick, Jr., of Independence, Iowa, son of C. F. Herrick, of that city, the old-time jeweler there, is with the army in Cuba. The boy says the work is rough but the discipline is good, and that his enlistment has been of benefit to him.

G. B. Ludy, of the firm of Ludy & Taylor, Cedar Rapids, Iowa, spent his vacation in Minneapolis and Lake Minnetonka. He enjoyed the trip immensely and returned feeling much better for his outing.

A. Schleuder, of Austin, Minn., and his brother, Mr. Theodore Schleuder, of Albert Lee, Minn., were in New York City on a buying trip the latter part of August.

Kearney Cobb, manager for Proctor Bros., at Iowa Falls, Iowa, was laid up for two months with quite a severe spell of sickness. He is once more in harness, and although a little shaky on his pins, is doing duty at the old stand. A couple more weeks will see him better than of old.

The unrestrainable "Dory," commonly known as Theodore L. Rogg, of Des Moines, Iowa, is getting some of the benefits of life and living at the Eastern watering places and summer resorts. He is one of the few jewelers who really get the most out of what there is to live for. We rejoice with him that it is so, and advise others to go and do likewise.

The Elgin and Waltham Jewelry Co., Kansas City, Mo., have now elegant and capacious quarters as a result of recent improvements and enlargements.

C. P. Hadenstad, of Albert Lee, Minn., who has been ill since January, is once more about and able to attend to his business.

W. H. Potts, of Mason City, Iowa, spent the greater part of the month of August in the Dakotas, hunting, going after all kinds of game, and no doubt he got it.

Anglo-American Pins and Brooches.

Anglo-American friendship is an incident of the time, and numerous are the symbols of it. One of the most popular is represented in our illustration of one of the flag-brooches and flag-pins made by Chas. M. Roblins, Attleboro, Mass. These pins combine utility, ornamentation and sentiment—the three essentials of salability. They are made in great variety, showing the Stars and Stripes and the Union Jack in happy combination, and would make a timely addition to quick-selling stock.



Vari-colored Sash Belts.

The feminine predilection for a variety of pronounced colors in harmonious combinations has been admirably catered to in the striped silk ribbon sash belts. Our illustration shows the pretty and showy Bayadere belt of this



kind now being furnished to the trade by J. Floersheim, Kunstadter & Co., Chicago. These ribbon belts can be had with an endless variety of colors and stripes and with different styles of clasps, from the gayest and most select imported effects to the popular domestic makes. Feminine fancy is one of the most fruitful sources of sales, and these belts merit trade attention accordingly.

Get Ready for the Rush.

Business will boom this fall, and after years of depression and loss, it should be the duty of every jeweler to reap the coming harvest. Every jeweler should engrave holiday goods, and we invite attention to the advertisement of Eaton & Glover, in this issue, in which they show a most artistic specimen of engraving done on their machine. This is the most beautiful sample of machine engraving we have ever seen and is a really remarkable production. Look up the cut, and then send your name and address plainly written, on a postal card to Eaton & Glover, 111 Nassau Street, New York, for their fully illustrated catalogue. It will pay you to do it. *



J. S. ADLER & CO.,
RINGS 37-39 MAIDEN LANE,
NEW YORK.
CHICAGO ADDRESS, MASONIC TEMPLE SAFE DEPOSIT VAULTS.

Rose Diamonds
Opals
Pearls
Turquoise
Garnets
Doublets

MAX R. GREEN & CO.
Importers of
Precious and Imitation Stones
301 Masonic Temple, CHICAGO
Our specialty is jobbing stones.
Lapidary work given prompt attention.

Whitestones
Moonstones
Onyx
Cameos
Etc.
Etc.

S. MARTIN JEWELRY AUCTIONEER.

TWENTY-TWO YEARS' EXPERIENCE.

ALL BUSINESS CONFIDENTIAL.

Address—1036 Cambridge Ave., MILWAUKEE, WIS.

THE AUCTIONEER YOU WANT is one who combines the highest-grade auctioneering talent with a thorough comprehension of the jewelry business and an expert's knowledge of the goods. The hundreds of jewelers, for whom I have made successful sales, credit me with these qualifications, and twenty-two years' experience has taught me how to make the most of them. No failures; no dissatisfied clients. The auctioneers are rare who can draw a crowd, hold it and sell to it without subsequent dissatisfaction—who can at the same time make money for the jeweler, spread the fame of his store and raise his reputation. If you are thinking of an auction sale, write me at once.



LEATHER WATCH BRACELETS



We have a nice assortment in various leathers.
Send for samples.

ESTABLISHED
1850

C. F. RUMPP & SONS,



MANUFACTURERS OF

Fifth and Cherry Streets,
Philadelphia.

Fine Leather Goods.

New York Salesroom,
621 Broadway.

SEND FOR NEW ILLUSTRATED CATALOGUE.

S I G N S S I G N S I G N S S I G N S I G N S

I make the largest and most perfect watch signs in the world. With or without illuminated dials. They are the latest improved, and have advantages superior to all others. They are as perfect in proportion as a watch case, and also very beautifully and artistically designed. They are made of heavy sheet zinc, painted with white lead and gilded with the best XX gold leaf, and warranted in every particular. These signs can be placed on a post, and are so constructed as to revolve, or they can swing on a rod from a building. I make different sizes. Weight of signs varies from twelve to eighty pounds. The best advertisement for your place of business is one of these elegant signs. They are sure to attract attention, and always prove a paying investment. Price-list and photos. furnished on application. Address

Lon Barnhart,

717 W. Madison St., Chicago, Ill.

America's Leading Art and
Jewelry Auctioneer,

DAN I. MURRAY

126 State Street, Room 602,
CHICAGO, ILL.



For the convenience of my Central and Southern trade, I have opened a branch office at 4 E. Fourth St., Cincinnati, Ohio. All mail addressed there, care A. & J. PLAUT, will receive prompt attention.

I pay my own expenses, I work on commission, my methods are new and original, terms very reasonable. All correspondence is strictly confidential. Write me at once for a date.

Don't Fail to Read this Letter and then Correspond with Me

You will make money by it. All correspondence is strictly confidential. When you are sick you consult a doctor; when you want to make money consult me. I can advise you for right and put you in position to make money instead of losing it. I have made this business a life study and know just how to handle business, and I make success where others fail. Why not have a sale and let me handle it? You will never regret it.
DAN I. MURRAY.

OFFICE OF
LEA-BALDWIN FURNITURE CO.

TO THE TRADE:

We would like to give a word of advice. We tried a cut sale for three months, and when it became so slow that stock would not sell, we corresponded with a few different auctioneers and finally secured the services of Mr. Dan I. Murray, of No. 126 State Street, Chicago, and must say he has more than surprised us. We were afraid of a heavy loss, but we took Mr. Murray's advice; he drilled the clerks and opened the sale. We are now ending the second week. The weather has been very hot and many things have transpired to make the sale a difficult one, yet Mr. Murray, by his kind and genial ways and his wonderful and beautiful explanation of goods, has held his crowds until he wished to close the sale. His sales have been wonderful, selling the largest and most expensive goods at a profit averaging thirty per cent. above cost, and we cannot say too much for him. Our stock is a large and varied one, consisting of Furniture, Carpets, Curtains, China, Jewels, Cut Glass, Lamps, Umbrellas, Rugs, etc. Mr. Murray goes through the stock with a masterly hand, explaining every article beautifully, from the finest diamond to the cheapest piece of furniture. His voice, which is a beautifully trained one, can be heard in every part of our large building, and his crowds are delighted and stand by the hour to hear him. He talked one day nine hours, and closed with a large crowd of refined people who had attended the entire day's sale. People came to hear him and to spend the evening, preferring it to theatres or places of pleasure. We will say that any dealer who is so fortunate as to secure Mr. Murray's services will be highly pleased and will make money. We think he has justly won the title of "America's Leading Auctioneer." We cheerfully recommend Mr. Murray as a careful, kind and shrewd gentleman, a fine salesman and the greatest auctioneer we have ever heard of. We will be pleased to answer any correspondence regarding Mr. Murray.
Very respectfully,

MANSFIELD, O., June 18, 1898.
THE LEA-BALDWIN FURNITURE CO.
Per J. J. Lea, Sec'y.

ELECTRO-TINT ENG. CO.

1227-29 RACE ST.
PHILADELPHIA

DESIGNERS
ILLUSTRATORS
AND ENGRAVERS

THREE COLOR WORK
A SPECIALTY

Jewelers' Auctioneer

S. A. HASELTINE,

758 Lincoln St.

Springfield, Mo.

TERMS REASONABLE. SATISFACTION GUARANTEED.

All correspondence confidential. Send for circulars, terms, etc. Give full particulars in writing. Read testimonials from month to month, for the past four years, in THE KEYSTONE what others say of me and my work. I advise, direct and conduct each sale personally. Read below a few extracts of what my employers say of me and my work—from the Lakes to the Gulf, from the Rocky Mountains to the Blue Ridge:

DULUTH, MINN., April 4, 1895.

He is a first-class auctioneer. He holds his audience and draws good prices. He sold goods that had been in stock for years and were considered quite unsalable. His description of a watch movement alone created such an impression that he gained the confidence of the audience at the start and held it to the finish.

R. KROJONKER, Pres. Duluth Jewelry Co.

DULUTH, MINN., April 15, 1898.

S. A. Haseltine just closed his second sale for me, and I can repeat what I said about him three years ago. [ABOVE]

R. KROJONKER, Pres. Duluth Jewelry Co.

FORT WORTH, TEXAS, Sept. 5, 1896.

Col. S. A. Haseltine has just closed his second successful sale for us. We have tried other auctioneers, he is the best. If you can get the Colonel your auction will not fail. His pleasant, earnest, honest work in your behalf will make you friends and customers after the sale, while realizing best prices for you.

MOREHOUSE & McBRIDE.

BILLINGS, MONT., October, 1897.

He sold all the goods we wanted disposed of. He secured a nice profit above first cost and all expenses. We found him a gentleman and honest.

FORESTER & FRIZELLE.

PEABODY, KAN., Jan. 30, 1895.

Col. Haseltine is the "jewelers' morning and evening stars of America." His methods will insure you success and be a help after the sale. I know from experience—this is his second sale for me.

T. W. BUTCHER.

MARSHALL, MO., May, 1895.

He did not guarantee profits, but made a profit on each day's sales above cost and commissions.

THE MITCHELLS.

CLARKESVILLE, TENN., Dec. 18, 1896.

From day to day the best people came with untiring interest, and he could have closed out another stock if I had had it.

MRS. E. P. GANCHAT.

BRAZIL, IND., February 10, 1898.

Since checking up I find the sale a great success in every particular. Many of our best citizens have congratulated me on securing the finest auctioneer in America. You pleased the people as well as going far beyond my expectations.

Yours truly,

H. D. BARD.

HARRISBURG, PA., Jan. 1, 1898.

Out of a \$7000 sale he made \$500 profit, and no auctioneer ever visited our city who presented a more gentlemanly appearance, or was so cordially received by the public. It is a pleasure to hear him talk, though you do not buy.

GEO. A. HUTMAN.

ASHEVILLE, N. C., April, 1897.

He understands how to draw, hold and interest an audience, and get desired price for good goods. He is an expert in his line.

A. KIENLE.



S. A. HASELTINE.

Modern Letter Engraving.

The largest and most complete book of instructions ever written. By mail, \$1.50.

F. H. REES.
ELMIRA ENGRAVING SCHOOL,
ELMIRA, N. Y.



The Souvenir Spoon Engraver.

Chas. A. Stahl, Jr.

Providence, R. I.
Best and cheapest.
Send for price-list.



Price Reduced to \$8.00

No cheap imported imitation, but the genuine Houghton Face-Plate

for \$8.00. Excellent finish, and warranted to run true. See that J. HOUGHTON, Manchester, N.H. is stamped on them.

JEWELERS', PLATERS',
WATCH CASE MAKERS'
AND SPECIAL

BRUSHES

MANUFACTURED BY
EDWARD E. GNICHTEL,
15 TO 19 GREEN ST.,
NEWARK, N. J.

THE BEST is
THE CHEAPEST after all.

THE only secure and simple arrangement for Interchangeable Stone Initial and Emblem Rings. Made in all desirable styles.



Globe Lever BUTTON BACK.

Post can be attached to any button.
"It has no peer"

CATALOGUE SENT ON APPLICATION.
J. BULOVA,
57 MAIDEN LANE, NEW YORK.



50 PER CENT. COMMISSION
Big attraction for your window, and money in your pocket.
Photo. Button Easel Card sent free to jewelers. Shall we send you one?
Photograph Novelty Co.,
125 State St., Chicago.
Originators of Photo. Buttons.

THE J. J. RYDER CO.
DESIGNERS ENGRAVERS PRINTERS
ELECTROTYPERS

Portraits, Buildings, Machinery and Jewelers' Cuts. Artistic Designs in Letter Heads, Calendars, Catalogue Covers, etc. Half-tone and Photo-engraving. Wedding Invitations, Visiting Cards and Stationery Stamping.

47 Washington Street, corner Eddy,
Telephone 1357. PROVIDENCE, R. I.

WATCH REPAIRING FOR THE TRADE

LOW PRICES AND PROMPT ATTENTION.

ALL WORK GUARANTEED. PRICE-LIST UPON REQUEST.

C. CULMAN
Globe-Democrat Building, ST. LOUIS.

COME take a short course in WATCH WORK, ENGRAVING or JEWELRY WORK. You will be surprised to see how much we can teach you in a month or two. Anyhow, send for our new catalogue.

Philadelphia College of Horology,
F. W. SCHUBERT, Principal, 1213 Filbert Street, Philadelphia.
See ad. on page 732B, this issue.

News From the Front



By sending all your Tarnished Stock and Old Silverware to

J. J. DONNELLY,
PLATER,
73 NASSAU ST., NEW YORK,

they reach the front rank in that line of action and you will be surprised at the result.
Send for Price-List.

AWARDS FOR

H. H. Heinrich's Marine Chronometers.

CHICAGO, 1893 PARIS, 1889 BERNE, 1889



A large stock of new and second-hand CHRONOMETERS always on hand to rent or for sale at moderate prices; rent to apply on purchase. My second-hand Chronometers are made up equal to new, and adjusted to the average rate of 5 to 10 seconds per month. Special terms to suit convenience of customer.
Repairing, springing and re-adjusting Chronometers and Fine Watches for the trade.

H. H. Heinrich,
102 Fulton St., Room 502-4, NEW YORK.

WILL CLOW, FIVE YEARS HEAD WATCHMAKER FOR O. H. KNIGHTS & CO.
FRED CLOW, FORMERLY ENGRAVER WITH C. D. PEACOCK.

CLOW BROS.
Watchmakers and Engravers to The Trade,
Room 813, Columbus Memorial Building,
CHICAGO.

We give expert attention to all orders in our line, and rely upon holding our customers by giving their favors careful and prompt attention. We solicit your repairs and engraving. With your first order we will send you free of cost a very sensitive Compass for detecting magnetism in watches.

WRITE FOR THIS



A Fine Display Card FREE, representing our various designs in Photo. Novelties, Photo. Buttons, Scarf Pins, Sleeve Buttons, Shirtwaist Sets, and all other photo. novelties. We send you FREE 250 Maine Circulars, with ad. on reverse side, so per cent. commission. We prepay return postage.
Photo. Jewelry at Lowest Prices.

Send good photograph for free sample button.
Parisian Novelty Co.,
77-79 Clark St., Chicago.

EXPERT Watch Case Repairing and Watch Case Manufacturing.

Gold and Silver Plating, Satin Finishing, Engraving and Engine-Turning.



Old English and Swiss Cases changed to fit American Stem-Wind Movements.

Special Cases made to order in Gold and Silver for English, Swiss and American Movements.
OLD CASES MADE NEW.

F. H. JACOBSON & CO.,
86 State Street, Chicago.
Send for Our New Price-List.

Photographs on Watch Dials and Caps.



Single or Group Pictures.

A Beautiful Gold Embossed Sample Card and Price-List sent free to jewelers on application. Price the same as ever, \$1.

THE ELMORE CO.,
115 Dearborn St., Chicago.

NOT What You Pay But What You Get for What You Pay

The Best Office Desks at reasonable prices.
The U.S. Desk & File Co.
Indianapolis, Ind.

LETTER FILE



\$1.50 per dozen Cash with order Size 11x12 1/4 x 3

SIGNS REAL TRADES AND PROFESSIONS **GLASS & METAL**

J.W. RUSSELL & CO. MFG'RS. 254 PEABODY ST. NEW YORK. CATALOGUE

Our MR. T. B. HAGSTOZ was the senior partner of the firm of Hagstoz & Thorpe, predecessors of the Keystone Watch Case Co. He was also the president of the Essex Watch Case Co., and until last fall connected with the Courvoisier-Wilcox Watch Case Co. The use of his name insures our motto "Honest Returns." Estimates cheerfully given, and if not satisfactory goods returned at our expense.

T. B. Hagstoz Co., Ltd.,
SMELTERS, REFINERS AND ASSAYERS,
709 Sansom St., PHILADELPHIA.



Pat. April 14, 1891. June 15, 1896.



The Lamb Eye-Shield.

The Only Authorized and Lawfully Manufactured
It is light, flexible and waterproof; made to fit closely to the face and around the eyes; a soft felt rim renders it impossible for dust or any other substance to enter between it and the skin; small perforations in this felt rim admit sufficient air for the eyes to retain their normal moisture. The EYE-SHIELDS are formed of the clearest mica and are perfectly transparent. They are furnished in either clear, blue, green or smoke. Sample pair, in neat case (straight or folding), post-paid, 50 cents. Trade prices and catalogue sent free on application. Address

B. F. Lamb, 131 State St., BOSTON, MASS.
Sole Patentee and Manufacturer
For sale by Leading Jewelers and Dealers in Optical Goods.

We do **Watch Repairing** for the Trade

BY EXPERT WATCHMAKERS.

Fine Complicated Watches and Demagnetizing our Specialty. All work guaranteed. Send us your Watch Repairing.

M. S. FLEISHMAN COMPANY,
MASONIC TEMPLE, CHICAGO.

The "New Century" Caligraph



represents the highest point in typewriter quality and equipment. Many new and simple features.

CIRCULAR FOR THE ASKING.

United Typewriter & Supplies Co.

102 & 104 S. Tenth Street, PHILADELPHIA, PA.

Foot-Power Lathes.

High grade tools { Correct in principle. Elegant in design. Superior in construction.

The Best Foot-Power Lathes Made.

This cut represents our No. 4 Lathe, which is admirably adapted for the heavier work of watchmakers and jewelers. Send for our Catalogue.

We also make a line of Screw-Cutting Lathes for Bicycle Repairing.

W. F. & John Barnes Co.,
660 Ruby Street, Rockford, Ill.



MUSIC BOXES

The **OLYMPIA** is the most improved music box with turn disk. Owing to its very fine quality and finish, it is specially adapted to the jewelry trade.

E. L. CUENDET, Gen'l Agt.,
Send for Catalogue. 21 John St., New York.

Send me 50 Cts. for 1-pound package of **BROOMCORN PITH.**

Far better and much cheaper for Progressive Watchmakers than Elder Pith.

MART H. BASSETT, Arcola, Ill.
Larger shipments at proportionately lower rates.

GORDON & MORRISON,
WHOLESALE WATCHES, JEWELRY AND OPTICAL GOODS.



Diamonds, Sterling and Silver-Plated Flat and Hollow Ware, Clocks, Tools, Watch Materials, Spectacles, Eye-Glasses, Lenses, Trial Sets, Opera and Field Glasses, Opticians' and Jewelers' Sundries.

We handle everything pertaining to the jewelry and optical trades. We are direct IMPORTERS of SWISS WATCHES and MOVEMENTS.

If you want to save money, send us your orders. Our illustrated Catalogue mailed free on application.

178 & 180 E. Madison St., CHICAGO, ILL.

The Best Window Attraction in the World

A little oil once a month and one minute's attention each day, is all that is required. Will last a lifetime, and never lose its attraction. Any watchmaker can make it from his own material without additional cost. Full printed instructions sent to any address on receipt of \$1.00. Instructions copyrighted, 1897. Write for circular. Address:

A. BUCKENHAM, Watchmaker and Jeweler,
Box 29, Bothwell, Ontario, Canada.



Venkel's Patent Improved Self-Adjusting CROWNS and STEMS, made in all sizes and for any make of watch case. A trial will convince you that they are the most perfect Crown and Stem made. Prices on application.

A. M. Venkel & Co., Perkasie, Pa.
Mfg. Watch Case Materials.

THE PATENT EXPANSIBLE SPECTACLES AND EYE-GLASSES.

BEST WEARING QUALITIES FOR THE LEAST MONEY.

1. Solid Temple.
2. No screws to rust.
3. No solder on joints.
4. Non-breakable spring.
5. Interchangeable.
6. Superior finish.

Mounted in all forms of lenses.



Made in **Nickel Silver and Goldoin** Two Metals

Nickel Silver—A white metal; high lustre; will not tarnish or rust.

Goldoin—A combination of metals resembling 14 K. gold and their combinations.

PRICES: SPECTACLES, \$15.00 to \$24.00 Gross.
EYE-GLASSES, \$24.00 to \$30.00

TO BE HAD FROM JOBBERS ONLY.

Chicago Gold Pen Repairer.

GOLD PENS.

Send me your work. Repairs of all kinds.

S. N. JENKINS, 103 State St., Chicago, Ill.

CLOCK HAIRSPRINGS



MANROSS
ESTABLISHED 1877.

LARGEST MFR OF HAIRSPRINGS IN U.S.

THE CLOCK REPAIRER'S ASSORTMENT CABINETS contain 50 or 100 finished hairsprings complete, all sizes and makes, carefully arranged, full directions. Cabinet of 50, \$1.00; 100, \$1.75, by mail. Same springs, any size or make, 50 cts. per doz., 20 cts. per half doz. Steam Gauge Hairsprings of every description. Phosphor Bronze Hairsprings for Electrical Instruments, etc.

Ask your Jobber for these Cabinets.

F. N. MANROSS, Forestville, Conn.

GOLD SOLDER.
BEST ON EARTH.

Made in Low Karat, 6, 8, 10, 12, 14, 16, 18 Karats.

Easy-flowing and good color.

SOLD BY ALL JOBBERS.

TO INCREASE YOUR REPAIR TRADE.

Buy the roughed-out and outlined parts for one of my **Paragon Lever Escapement Models**, and finish it up and place it in your show window. They convey an idea of high mechanical skill. Write for descriptive circular. To insure answer, enclose two-cent stamp. Address:

M. MACKELLAR,
P. O. Box 2074, Philadelphia, Pa.

MONEY AND TIME SAVED
by sending your

WATCH WORK

OLOF PEARSON,

EXPERT WATCHMAKER FOR THE TRADE.

Fine Watch Repairing. My charge for Demagnetizing Watches is 50 cents. Give me a trial on this kind of work. All kinds of Wheels Cut to Order.

Mail Orders promptly attended to.

Room 1313, Columbus Memorial Building, CHICAGO.

GOOD WORK AND LOW PRICES.

I Will Pay Cash

for every kind of Gold and Silver. Prompt and accurate estimate made on consignments. Satisfaction guaranteed. Send by mail or express.

FRANK JACOBSON,
86 State Street, Chicago.

CUT IN 2.

EGGS from our thoroughbreds reduced one-half till October 1st. Regular price per setting of 15 is \$2.00 for Brown and Buff Leghorns and Light Brahmas, \$3.00 for Barred and Buff Plymouth Rocks and Warhorse Games. Cut these prices in two and get your order in by October 1st. All orders refused after that date. Will ship eggs any time after September 1st. Our stock is the best. Eggs guaranteed true to name, or money back, if you say so. Send for free catalogue.

Can ship safely any distance.

KEYSTONE POULTRY FARM,
VALDOSTA, GA.

AMERICAN CUCKOO CLOCK CO.
PHILADELPHIA, PA.
OUR CATALOGUE FOR THE ASKING.

See adv. on page 561, July issue.

INDISPENSABLE TO THE RETAIL JEWELER

Wells' Perfect Self-Conforming and Ventilating Ring Adjuster is the result of many years' experience. It can be fitted by a jeweler in five minutes. Ask your jobber for it, or I will send prepaid at once on receipt of price.

1 doz., assorted sizes, solid 10 K. gold, \$3.75; or 1/2 doz., assorted sizes, for \$2.00; 1 doz., metal, assorted sizes, 85c. (See extra if registered.) For samples, a small size gold and medium size metal will be sent for 40 cts., or a medium large size gold and large size metal for 50 cts. Address:

CHESTER H. WELLS, Jeweler, Meshoppen, Pa.

G. F. Wadsworth,
Watch Case Manufacturer and Repairer.



Everything in the line of **Watch Case Repairing, Gold and Silver Plating, Satin Finish, Engraving and Engine Turning**

Changing Old English and Swiss Cases to take American S. W. Movement with my speciality.

OLD CASES MADE NEW.

Silversmiths' Building,
131-137 Wabash Ave., CHICAGO.

Small Advertisements

No advertisement inserted for less than 25 cents.

Under heading "Situations Wanted," ONE CENT per word for first twenty-five words. Additional words and advertisements, THREE CENTS per word.

Under all headings except "Situations Wanted," THREE CENTS per word.

Name, address, initials and abbreviations count as words.

If answers are to be forwarded, postage stamps must be enclosed.

To insure insertion money must accompany all orders for advertisements, and copy must reach us not later than the 25th of each month for insertion in the following month's issue.

The real name and address of every advertiser must accompany the copy of the advertisement.

Advertisers who are not subscribers must send 15 cents if they desire a copy of the paper in which their advertisement appears.

Address, **THE KEYSTONE,**
19th & Brown Streets, Philadelphia, Pa.

SITUATIONS WANTED.

Under this heading, ONE CENT per word for first twenty-five words. Additional words and advertisements, THREE CENTS per word. No advertisement inserted for less than 25 cents.

TRAVELING salesman, 10 years' exp., wants position selling tools and material, jewelry or optical goods. Thoroughly posted in optics. Salary or commission. "O 1," care Keystone office.

WATCHMAKER and optician, 20 years' exp., to work on halves, or take charge and manage a business. Address, A. M. Dreher, with Spencer Optical Co., 15 Maiden Lane, New York City.

BY watchmaker and jobber. Can do stone-setting and have a fair knowledge of optics. Best of ref. and willing to work for reasonable salary. Ad., "Jeweler," box 492, Ithaca, Mich.

BY first-class watchmaker, jewelry and clock repairer, 5 years' exp. Own good set tools. Salary expected, \$8. Best ref. Address, Box 327, Monticello, Iowa.

BY a first-class watchmaker and jeweler, 20 years' exp. Have full set tools. Ad., "D 2," care Keystone office.

BY first-class watchmaker and jeweler of over 15 years' exp. Have American lathe and good set of tools and A1 refs. Ad., "P 44," care Keystone.

FIRST-CLASS fancy letter and monogram engraver at liberty. Young man, single, best ref. Samples. Salesman, Ad., H. W. Thompson, 836 N. High Street, Columbus, Ohio.

BY reliable watchmaker, jeweler, salesman. 8 years' exp. No bad habits; good refs. Can take charge. South pref. Own tools. State particulars. Salary moderate. "P," Box 334, Madison, Ohio.

BY watchmaker and jeweler. Single, age 29; 6 years' exp. Own lathe and tools. First-class refs. D. E. Miller, McKinley, Va.

AS watch repairer, 5 years' exp. Good workman, plain engraver. Sober and reliable. Would like steady employment. Otto B. Schleuder, Springfield, Minn.

BY good watchmaker and jeweler, 4 1/2 years' exp. Single, own tools, A1 refs. Indiana or Illinois pref. Fred. O. Fogas, Mt. Vernon, Ind.

EXPERIENCED lady optician wants position with E good optical or jewelry house. Graduate of 2 colleges. Competent to take entire charge of retail department. First-class refs. "W 7," care Keystone.

BY watchmaker, engraver and optician, young man, temperate and reliable. Married. Have tools and trial case. Salary, \$15 per week. Address, Dallas Dodd, 123 Genesee St., Utica, N. Y.

FIRST-CLASS setter and jeweler wants situation, 14 years' exp. and refs. from present employer. Western States preferred. "J. Taube," postoffice, Denver, Colo.

WATCHMAKER, jeweler and salesman, 4 years' exp., age 23, own tools. Best of refs. State salary and address, Wm. S. Swenson, Cresco, Iowa.

BY young man to finish trade. Can do hard-soldering, clock and jewelry work, dress windows and simple watchwork. Carl Phillips, 7026 Virginia Ave., St. Louis, Mo.

AS refracting optician and salesman in an optical store or department; 10 years' exp. Thorough knowledge of skiagraphy and latest refracting methods. A1 refs. Ad., "W 2," care Keystone.

A THOROUGHLY competent watchmaker, expert jewelry repairer and good salesman desires permanent position. Has had 14 years' exp. in above lines, and can give first-class refs. Owns full set of tools. Will work for moderate salary if position is permanent. Ad., "R 63," care Keystone.

BY fine engraver and jeweler, 16 years' exp.; refining, colored gold work, etc. Steady, reliable and quick. Will assist on watchwork when necessary. Permanent position only accepted. At liberty Oct. 15th. Ad., "P 7," care Keystone office.

BY exp. watchmaker to take charge of bench work on commission or salary. Own tools, A1 ref. Illinois or South pref. C. A. Florey, Bethany, Ill.

AS junior watchmaker by bright young man, 4 years' exp. at the bench. Address, Sam Wallace, Room 811, Columbus Memorial Building, Chicago.

PERMANENT employment at \$15 per week will secure Dallas Dodd, of Utica, N. Y.

BY young man, age 26, as watchmaker and jeweler, 7 years' exp. Lathe and full set of tools. Capable of management; strictly temperate. "G 3," care Keystone office.

YE, ear, nose, throat specialist as refractonist, 6 years' exp. Own trial-case, prisms, retinoscope, ophthalmoscope City preferred. Married, age 30. State terms. Enclose stamp. "C 3," care Keystone office.

AS watch repairer and jeweler, 4 years' exp., age 23, married, own tools, good ref. Steady, some knowledge of optics and drugs. Address, "Jeweler," Box 5, Nodaway, Iowa.

FINE watchmaker, optician and salesman, 26 years' exp. Own tools; have 10 years' practical exp. Single, sober and industrious. Responsible ref. "B 7," care Keystone office.

A Swedish-American watchmaker of 10 years' exp. desires position. Prefers the Pacific coast. Can give ref. Address, "H. H. 62," Room 514, Columbus Memorial Building, Chicago.

STRICHTY expert watchmaker, engraver, graduate optician, salesman, 20 years' exp. Have full set of fine tools, optical trial-case. Age, 35. Will work reasonable for a permanent position. City or Illinois, Iowa, S. Dakota, Minnesota or Nebraska preferred. Write for ref., photograph. "L 4," care Keystone.

FIRST-CLASS watchmaker and jeweler, good jeweler, engraver, 21 years' exp. All tools, no bad habits. Go to any State. Refs. Koller, North East, Pa.

YOUNG lady desires situation as optician and engraver. Accustomed to wait on trade and willing to do jewelry repairs. Address, "F 7," care Keystone office.

BY young man as watchmaker, jeweler and engraver. Had a course in biological school and 3 years' exp. Wishes to change. Refs. good. "S 8," care Keystone office.

WATCHMAKER wants position, 8 years' exp. Moderate wages; 24 years' old; full set tools. Address, Ernest T. Binck, Winsted, Conn.

COMPETENT watchmaker and jeweler. Single, own lathe and good set of tools. A1 refs. from present employer. At liberty Oct. 1, 1898. "S 19," care Keystone office.

WATCHMAKER, engraver, salesman, also do ordinary jewelry repairing. Single, age 24; 3 years' practical exp. Samples engraving and ref. Address, "R 3," care Keystone office.

FIRST-CLASS watchmaker, jeweler and engraver, over 20 years' prac. exp., an all-around man. Can fill the bill in any capacity. J. Jenter, Sreator, Ill.

AI JOBBING jeweler and clock repairer; do good engraving and am fair salesman. Best refs., age 27, 30 years' exp. Watson Moore, Max Meadows, Va.

DALLAS Dodd, of Utica, N. Y., is open for engagement. He is a good workman, up-to-date and a hustler. Salary expected, \$15 per week.

BY young man, 10 years' exp., hard-soldering, spectacles, eye-glasses and jewelry repairing and new work. W. K. Freeland, 750 Edmondson Ave., Baltimore, Md.

GRADUATE optician, expert in all branches. Can repair watches and jewelry; adept in musical instruments. Address, "Optician," care Dr. McCartney, Bowling Green, Ohio.

PERMANENT position by jewelry jobber and general engraver, enameling, coloring, stone-setting; make some new work, lettering, monograms, ornamental engraving. Can furnish best of ref. as to ability and habits, 20 years' exp. in factories and stores. Salary, \$21 per week. Address, Charles Wagner, 1311 Oak Street, Kansas City, Mo.

BY young man to finish trade. Can do hard-soldering and all kinds of jewelry work. Have own tools; 3 years at the business. \$5 per week. Address, E. Shaver, care Wm. Richman, Pomeroy, Ohio.

BY good watchmaker, jeweler and engraver. Good ref. from present employer. Ad., "J. W. S.," care Bauman-Massa Jewelry Co., St. Louis, Mo.

BY watchmaker and jeweler; some engraving. Capable of taking charge; good all-around man. A1 refs.; married. P. O. Box 164, Chester, S. C.

PERMANENT position watchmaker and salesman; fine workman; age 30. Repaters, chronographs, chronometers, clocks, French, etc.; hard-solder. Will work on commission, or salary \$13 per week. "C 6," care Keystone office.

AS watchmaker and salesman after Sept. 1st, by a young man, 26 years of age with 8 years' exp. as watchmaker. Ad., A. G. Fensler, Cascade, N. Y.

IF you have a good situation to offer to a good workman, write to Dallas Dodd, Utica, N. Y.

SALESMAN in jewelry, 14 years' exp., good appearance and attentive to employer's interests. Engagement Oct. 1. Canada or Southern States pref. Address, E. Robinson, 323 Ontario Street, Toronto, Canada.

OCTOBER 1st, by first-class watchmaker and jeweler. Can do engraving; 12 years' exp. Best refs. Have complete set of tools. Michigan preferred. "Watchmaker," 803 S. Washington Ave., Lansing, Mich.

BY young man of 30. 14 years' practical exp. in watch, clock, jewelry repairing; salesman; clean stock keeper. Charles Burgess, Alton, Ill.

BY manufacturing jeweler; 4 years' exp.; engraver and diamond setter; complete set of tools for manufacturing shop if desired; best refs. H. F. Scribner, 246 Wisconsin Ave., Oshkosh, Wis.

BY experienced watchmaker, engraver and diamond setter; experienced on fine Swiss and American watches of railway grades; expert engraver; permanent position; 20 years' experience. "P 6," care Keystone office.

BY an experienced watchmaker, salesman and engraver. For a permanent position will come for moderate salary. Ad., L. Box 1099, Madison, Ohio.

FIRST-CLASS watchmaker, jeweler and graduate optician; an all-around man; good salesman; 15 years' experience; own tools, lathe, trial case; also speaks German; A1 reference. Address, "Jeweler," care of John C. Burgess, Lock Box 4, Ft. Wayne, Ind.

BY watchmaker, engraver and optician; married; age 29; own tools, including lathe and trial case; good exp.; good refs. Illinois or Iowa pref. Ad., "Jeweler," 506 Chestnut St., Rockford, Ill.

BY young man; thoroughly competent watch, clock and jewelry repairer. Ad., "L 8," care Keystone office.

FIRST-CLASS position as jeweler and engraver by all-around man of 20 years' experience; capable of taking charge of store or shop; temperate; Eastern States pref. Salary, \$25. "J 3," care Keystone.

WATCHMAKER and registered pharmacist; 7 years at bench and 4 years' drug exp.; finest refs.; good salesman; single, 24; good habits; own fine tools; fine, all-around business ability, as proven by references. L. M. Tebbel, care C. E. Henney, McComb, Ohio.

AS watchmaker and engraver; competent and successful in charge of watch repair department; gilded refs. Salary, \$18 per week. "Denver 8," care Keystone office.

BY single man, good habits, lifetime exp. repairing B watches, clocks and jewelry, understands business thoroughly; good salesman. Moderate wages only expected. Box 18, Lewistown, Mo.

(Continued on page 738)

SITUATIONS WANTED.

(Continued from page 737.)

WITH good wholesale jewelry house, watchmaker by trade; willing to work myself up; can command some trade. "S 17," care Keystone office.
A YOUNG man, with exp. as salesman, wants position as salesman and bookkeeper. Good ref. Address, "S 16," care Keystone office.
A LL-around man, single, do engraving and have a considerable knowledge of optics; own lathe and tools. Moderate wages for permanent position. "E 4," care Keystone office.
W ATCHMAKER, 20 years' exp., expert in fine and complicated work, has best refs. of A1 firms. complete set of tools, desires situation—watch inspector pref. Can go at once, South or West pref. Do no engraving. Address, "Watchmaker," 526 Spruce Street, Philadelphia, Pa.
A THOROUGHLY competent watchmaker, clock and jewelry repairer, good salesman, wishes permanent position by Oct. 1st. Speak English and German. Can give good refs. Western States pref. Ad., "J. H. S.," Lock Box 427, Fergus Falls, Minn.
B Y first-class watchmaker, jeweler and optician; can do engraving. Have full set tools. Good refs. Address, Box 775, Independence, Kan.
E XPERT watchmaker, graduate optician, good salesman; can engrave, 10 years' exp. Photo. Testimonials from every employer. Salary, \$16 weekly. Would go West. Box 150, Southbridge, Massachusetts.
C OMPLETING my trade. Married, age 22; 2 years' exp. at bench and jewelry work. Have tools, best of refs. Wages small. H. Crane, Ithaca, Michigan.
B Y good watchmaker; learned trade in Germany. Prefer position near St. Louis, or a small city. Fred. Lonberg, New Haven, Mo.
B Y watchmaker, jeweler and plain engraver; all right on French, English and American clocks and hard soldering; best reference; have tools. "B 9," care Keystone office.
B Y young man of one year's exp. on watches and clocks; also graduate optician, having trial case; good refs.; moderate salary. Address, Box 84, Morris, N. Y.
B Y watchmaker and engraver, understanding optics; have all tools; will work reasonable where I can get a steady job; speak German. Please state salary you can pay. Ad., "B 1," care Keystone office.
E XPERT watchmaker; 20 years' exp. on complicated watches and clocks; good engraver; engraves scenes on souvenir spoons; good salesman; full set American tools; no bad habits; best of refs. Prefer California or the West. None but good houses need apply. "L 7," care Keystone office.
H AVE in my employ good, all-around young man, watchmaker, jeweler and engraver; I want to get him good place. J. F. Butler, Potsdam, N. Y.
O P T I C I A N, 3 years' exp., would like better position. Present employer's business will not afford larger salary. Am no \$2 man. "H 5," care Keystone office.
W ATCHMAKER and jeweler; experienced in drug store; reference from present employer. Wm. Goodman, Grover Hill, Ohio.
I f you want a good all-around workman, capable of taking charge of store, employ Dallas Dodd, Utica, N. Y.
W ATCHMAKER and drug clerk; speak German; first-class ref.; own tools; age 33. "F 10," care Keystone office.
A T ONCE—Practical watchmaker and jeweler of 22 years' exp.; A1 ref.; moderate salary; correspondence solicited. Address, Henry Conkel, New Haven, W. Va.
B Y an experienced optician and expert letter, monogram and jewelry engraver. For refs. and samples, address, "Optician and Engraver," 23 Adams Ave. E., Detroit, Mich.
B Y watchmaker, jeweler, salesman and engraver; Michigan, Indiana or Ohio preferred. Address, H. Bassett, Lincoln, Ill.
B Y first-class watchmaker, jewelry repairer, salesman and window dresser; good set of tools; best of refs. Address, Lock Box 219, Poplar Bluff, Mo.
B Y a graduate watchmaker, optician and letter B engraver; also store exp. Good ref. W. E. Bennett, Winterset, Iowa.
Y O U N G man, watchmaker, jewelry repairer, plain engraver, graduate Parsons' Institute, Peoria, 3 years' exp. Can also speak English and German. Good habits, moderate salary, satisfactory ref. "S 7," care Keystone office.
B Y manufacturing jeweler in all its branches; have my own tools. Mining country preferred; want steady position. Good refs. "L 6," care Keystone.
A C O M P E T E N T, first-class refractonist, 5 years' exp., familiar with use of all ophthalmological instruments and tests, also competent to select parts, lay out work or inspect, will be open for engagement September 1st. Would prefer to take charge of first-class retail store, or prescription department of large concern. Wages, \$25 per week. Best of refs. "B 8," care Keystone office.
Y O U N G M A N, 3 years' exp., desires to finish trade under good workman; wages, \$2.50 week, board and room; good refs.; good habits. Particulars by addressing, 152 N. William Street, Frankfort, Ind.
F I R S T - c l a s s watchmaker, jeweler and engraver; wants permanent position with first-class house; sober, industrious and own tools; best of references. Address, Box 665, Forest City, Iowa.
R E L I A B L E young man, experienced watch, clock and jewelry repairer, salesman; some engraving; set of tools, lathe, etc. Address, "Jeweler," care 12 Princeton Street, Westfield, Mass.
E X P E R T watchmaker, engraver, salesman would like position in large store by October 15th; two years with present employers. Reason for changing, employers going out of business. Age 28; married; fine set of tools. References, photo, and sample of engraving sent. J. M. Scott, care of Shirey Bros., Joplin, Mo.
B Y young man as watchmaker, engraver and optician; two years' exp.; have tools; can furnish recommendations. New York State preferred. Address, Box 473, Clifton Springs, N. Y.
F I R S T - c l a s s watchmaker and optician, fair engraver; 11 years' exp.; Central States preferred. Address, "Jeweler," Lanham, Nebr.
Y O U N G M A N wishes situation with some reliable wholesale house at any kind of work. 5 years' experience at bench; also salesman; best of refs. Address, C. H. Stafford, Carrollton, Mo.
B Y a salesman and optician, exp. all-around man, capable of taking charge of store or department. Age 33. Ref. exchanged. Pennsylvania, New York State or New Jersey preferred. All-around man. Address, "F 9," care Keystone office.

SITUATIONS WANTED.

B Y first-class watchmaker and engraver, 30 years old, 10 years' exp. Married. Best refs., own full set tools. If you want a good workman at reasonable price write to H. C. Morey, 109 Main St., Jacksonville, Fla.
P E R M A N E N T situation by October 1st with reliable house by first-class watchmaker, jeweler, engraver, diamond setter and good salesman; have tools and good references; age 29; married. \$15 per week. Address, Box 203, Cuyahoga Falls, Ohio.
Y O U N G L A D Y, graduate optician, wants position; capable of taking charge of optical department in jewelry store; 4 years' exp. Address, L. Eva Appar, Easton, Pa.
W ATCHMAKER and jeweler, and a thorough, competent refractonist on prescription work, and changing frames to measurements. Best of ref. D. T. Davis, 111 Fredonia Ave., Peoria, Ill.
Q U A R A N T E E D permanent position, at least 18 months, as watchmaker, do engraving, and have some knowledge in fitting glasses, 18 years at the bench. Speak English and German. Am married; living salary expected. Address, "M 8," care Keystone office.
G O O D watchmaker and engraver would like to work for salary or take charge of some jewelry store on commission. Have had 8 years' store experience. Can give A1 ref. W. K. Marshall, Paola, Kan.
B Y Sept. 15th, as optician or jeweler with reliable B jewelry firm. Have had 8 years' exp.; have own tools and trial-case. Address, 10 S. Thirteenth St., Harrisburg, Pa.
Y O U N G watchmaker, jeweler and plain engraver of good habits. Will work for reasonable salary. For further information and refs., address G. M. L. B. 146, Mechanicsburg, Pa.
B Y young man, competent on watch work, jewelry B and fine clocks; complete set of tools; no bad habits; age 25; good references. Address, "C 9," care Keystone office.
A M A N to engrave and do jewelry work; good, all-around man. Address, "B. C.," care C. L. Merry Optical Co., Kansas City, Mo.
W A N T E D young man who is good engraver, and can do all kinds of jewelry repairing and such new work as is needed in retail store. Send sample engraving. State salary wanted. Address, P. O. Box 97, Grand Forks, N. Dak.
B Y the undersigned for one of their branch stores, a first-class man as a watchmaker, engraver, jeweler and optician. A good chance for advancement for the right party. Address, Rubenstein Bros., 14 Maiden Lane, New York City.
S A L E S M E N to carry a line of optical goods on S commission in territory west of Pennsylvania. Address, "H. R.," room 811, at 103 State Street, Chicago, Ill.
F I R S T - c l a s s watchmaker and engraver. Must understand his business. State refs., age and salary expected. Ad., A. Mandelberg, Omaha, Nebr.
W ATCHMAKER, engraver and diamond-setter. Must be thoroughly competent on complicated watches and an expert engraver; must also be a good salesman. Send photo, refs. and sample engraving in first letter. Permanent position; \$25 per week. Location, the Rockies. "M 4," care Keystone office.
J E W E L E R and engraver; young man competent in both branches; steady employment. Address, "M 7," care Keystone office.
F I R S T - c l a s s male or female optical workman wanted—edge-grinders, benchworkers, etc. Address, stating experience and salary wanted, "Rex," Room 811, Columbus Memorial Building, Chicago.
S E R V I C E S of a traveler who has established S trade in Illinois, Indiana, Missouri and Minnesota to carry a trunk of jewelry on commission until January 1st. Address, "Allison 16," Room 811, Columbus Memorial Building, Chicago.
A C O M P E T E N T and active young man in our prescription department. Must have exp. and good refs. C. L. Merry Optical Co., Kansas City, Mo.
E X P E R T watchmaker on Northern Pacific division E point. Must be good engraver and exp. on complicated watches. Permanent position to strictly reliable man. Best refs. required. State salary. Send sample engraving. Address, P. O. Box 97, Grand Forks, N. Dak.
Y O U N G man; one that can do ordinary watch and clock work, and a good salesman. State wages, less board. Box 88, Catskill, N. Y.
F I R S T - c l a s s watchmaker, jeweler, engraver and salesman. Single man pref. Must have good refs. as to honesty. C. F. Billau, Cedar Rapids, Iowa.
P E R M A N E N T position for first-class watchmaker and engraver, who is also salesman. State age, salary expected, exp. and refs. first letter. Box 49, Shreveport, La.
W ATCHMAKER and optician. Young, single man, good appearance, steady place. Fair wages to suitable party. Refs. "Jeweler," 72 N. Main Street, Providence, R. I.
E X P E R I E N C E D jeweler and diamond-setter; one E understanding engraving pref. State refs., age and salary expected. Address, A. Mandelberg, Omaha, Nebr.
Y O U N G man as salesman and engraver. State age, ref., exp. and salary. Geo. W. Boettinger, Baltimore, Md.
A F I R S T - c l a s s jobbing jeweler; one who can engrave. Submit samples. Kinsel & Petri, Columbus, Ga.
A F I R S T - c l a s s opening for a good traveling salesman—optical line, main or side. Ad., "J 1," care Keystone office.
A Western jobbing house requires the services of a first-class traveling salesman who is acquainted with the jewelry trade in Iowa, Nebraska, Kansas and Minnesota. Good position for right man. Ad., "Jones," Room 811, Columbus Memorial Building, Chicago.
F I R S T - c l a s s watchmaker, jeweler and engraver. F Temperate, honest and reliable. Can make from \$15 to \$22 per week. Send refs., photograph and sample of engraving. Ad., Drawer 778, Roanoke, Va.
A T H O R O U G H, all-around optician and grinder, who is capable of doing edging, rimless and frame work. Only a first-class man will do. Position steady. Address, "C 5," care Keystone office.
B Y a New York optical house, a young man to select parts for prescription, and to inspect. A practical man preferred. Ad., "F 8," care Keystone.
I W I S H a sober (no drinker) young man; good watchmaker, jeweler, engraver with good refs. Address, Lock box 125, Effingham, Ill.

HELP WANTED.

O P T I C I A N.—A practical man who has knowledge of the optical business in general; also that can assist in fitting. Box 6, care Keystone office.
W ATCHMAKER, optician, engraver and salesman; single. "P 5," care Keystone office.
A S S I S T A N T watchmaker. Address, Fred. J. Baker, Huron, S. Dak.
Y O U N G man who can engrave; of good appearance, willing to wait on customers, help on clock and jewelry repairing, and make himself useful around the store. Send sample of engraving; must have recommendations. Alfred Lemoine, Fort Plain, N. Y.
U N D E R T H I S H E A D I N G T H R E E C E N T S P E R W O R D .
E V E R Y kind of gold and silverware, jewelry, E watches, platinum. Market value paid. Sent by express or registered mail. Price not satisfactory, I will return all articles. J. L. Clark, refiner and sweepmelter of gold and silver (established 1870), 724 Filbert Street, Philadelphia.
J E W E L R Y stock wanted for spot cash. Quick J action. Strictly confidential. Address L. Spiro, 96 E. Van Buren Street, Chicago, Ill.
E V E R Y progressive jeweler to send ten cents for E samples of my "Parisian Window Tickets." New, neat, attractive; they bring trade. Will please you. A. D. Nicolet, jeweler and photographer, Fall River, Mass.
E V E R Y jeweler that sells bicycles to send name E and address. Will send something that will interest you. Address, "H 4," care Keystone office.
A L O C A T I O N for jeweler and music dealer. Will B buy fixtures or old stand. Address, "C 8," care Keystone office.
O P T I C I A N S everywhere publish your own optical B illusion cards. Outfit, \$1.25 Sample for stamp. N. Y. Mutual Optical Co., 59 Maiden Lane, N. Y.
P A R T Y with fine fixtures and \$10,000-stock of dia- Bmonds and gold goods would like to combine with established trade, but needing fixtures and more stock. Ad., J. M. Scott, 418 Main St., Joplin, Mo.
L A N C A S T E R engraving block in good condition. L Geo. E. Thomas, Memphis, Tenn.
J E W E L R Y store in Illinois or neighboring State. B Spot cash. "G," 306 S. Center Street, Bloomington, Ill.
A M O N A R C H engraver's block. Ad., "Jeweler," B 506 Chestnut Street, Rockford, Ill.
L O C A T I O N for manufacturing and repair shop at B once. J. L. Hayek, Cedar Rapids, Iowa.
T O buy a stock of jewelry well located and estab- B lished. Address, "H 2," care Keystone office.
O P T I C I A N S and jewelers, who know a good thing B when they see it, to try my cut and ad. service. 1 cut with 2 ads. 10 fit each week, 35 cents per week. Wm. E. Huston, Greenfield, Ind.
G O O D opening to locate, by good watchmaker with B small capital. "K 2," care Keystone office.
Q U I D E - r e s t (imitation will answer) for Webster- B Whitcomb lathe. L. J. Marbias, Toledo, Ohio.
P A R T N E R with \$1000 to go with me to Porto B Rico, carrying stock of goods—jewelry preferred. I have thorough knowledge of Spanish language. "S 13," care Keystone office.
B Y Oct. 1, complete store fixtures consisting of wall B cases, show cases, safe, regulator, etc. Wall cases to be 8 to 16 feet—oak preferred. Must be in good order; cheap for cash. Also first-class watchmaker, engraver and optician. Address, Mrs. B. L. Gates, Marshall, Minn.
P A R T N E R with \$1000, in town of 35,000 pop., 30 B miles from Philadelphia, Pa. "S 12," care Keystone office.
A G O O D location for a watchmaker; Pennsylvania B or nearby. "H 6," care Keystone office.
J E W E L R Y stocks to buy. I will pay spot cash for B jewelry stocks of any size. F. P. D'Arcy, 3547 Prairie Avenue, Chicago.

FOR SALE.

U N D E R T H I S H E A D I N G T H R E E C E N T S P E R W O R D .
J D E Z E N G refractometers, 1897 model, in perfect B order. Price, \$50, each. Spencer Lens Co., 367-373 Seventh Street, Buffalo, N. Y.
F R A N C I S engraving machine, 4 fonts type, 1887 B pattern. All in perfect shape. Price, \$35. W. J. Sager, Spencer, N. Y.
O P H T H A L M O M E T E R, Satterlee's model, new. B Price \$37; cost \$60. W. H. Replogle, Malvern, Iowa.
F I N E location in good town. Bargain if sold soon. B Box 222, Pattonsburg, Mo.
Q U A N T I T Y of second-hand hacks in good order, \$150 and B \$250; 1 photographers' revolving glass show-case, \$10; 1 Seth Thomas watch sign—keeps time—\$12. F. W. Ward, Wellsville, N. Y.
A B A R G A I N. A neat, clean stock in county seat, B Central Iowa, pop. 1600. Invoice about \$3000. One competitor. Good reason for selling. "D 3," care Keystone office.
G R E A T chance for man of small capital. Good B repairing business, cash trade. County seat, town of 2000 inhabitants in Maryland. Rent reasonable. Repair work averages \$60 to \$70 per month; no opposition. Investigation invited. "M 5," care Keystone office.
T H E oldest jewelry and pawnshop business, estab- B lished in 1871, in city of 40,000 inhabitants, 300 miles south of St. Louis, Mo.; splendid trade in both branches. Rare opportunity for a live, energetic man. Will clear from \$200 to \$300 per month. Prospective buyer must have from \$4000 to \$6000 cash. Good reason for selling. "C 4," care Keystone office.
A G O O D opportunity for the right man to make B money. Jewelry, optical and stationery business in a fine farming country for sale. Reason, have other business. Address, "M 6," care Keystone.
A J E W E L R Y store near New York. With or with- B out stock at 2% of invoice. Inquire G. Wilkens, 241 First Avenue, New York City.
F R. CLAYTON has had 15 years' exp. as a jew- B eler's auctioneer; you make no mistake by engaging him to conduct sale. Profits guaranteed. Address, No. 39 Stanley Terrace, Chicago, Ill.
P O L I S H I N G lathe and engraving machine cheap. B J. E. McKee, Waddington, N. Y.
I N 1200 town; only store and repair. Health failing. B "D 4," care Keystone office.
M U S T sell out at once. Write for information. B Town of 2000; no opposition. Address, "K," Box 67, Prescott, Ark.

FOR SALE.

\$ 8 0 0 B U Y S stock and fixtures well located jew- B elry store, or will take partner. Be quick. "S 14," care Keystone office.
\$ 2 5 0 0 B U Y S the leading jewelry store in one B of the best towns in the copper country. Good trade the year around; you can make from \$25 to \$50 per month outside of business. Bench work runs to \$60 per month. Good reasons for selling. Address, "A 6," care Keystone office.
J E W E L R Y store with living apartments in rear. B Established 15 years on Third Avenue, New York. Please call or address "J. L.," 3013 Third Avenue, New York.
\$ 5 0 0 W I L L buy one of the best-paying jewelry B stores in Pennsylvania along main line. Profits \$100 per month; no opposition. Pop. 3500. Best reason for selling. Address, "L 5," care Keystone office.
W E L L - e s t a b l i s h e d office optical business in Western B city. Cash receipts for the past year over \$6000. Exceptional opening for a first-class optician or oculist. "S 15," care Keystone office.
G O O D location, plenty of bench work, Central Mis- B souri. Good farming country to draw from; 1500 inhabitants, no opposition. Good reason for selling. Address, "M 2," care Keystone office.
\$ 3 5 0 0 W I L L buy a first-class jewelry business, B established 1848, in a live town in New Jersey. Reason for selling, ill-health. Apply to H. O. Hurlbert & Sons, 938 Market St., Philadelphia.
W E L L - e s t a b l i s h e d retail optical business located B in Boston. Owner wishes to devote his whole time to the practice of medicine. "T 3," care Keystone office.
W H I T C O M B lathe, countershaft and foot-wheel; B all necessary chucks. Cheap for cash. Ad., Mrs. A. Shibley, Wooster, Ohio.
C H E A P for cash, jewelry stock and fixtures; will B invoice about \$700. Sickless, cause for selling. Write for particulars. "W 8," care Keystone office.
F I N E jewelry stores; 1 at Irwin, established in B 1885, stock \$7000, and 1 at Charleroi, Pa., opened last December, stock \$4000; both good paying businesses. For particulars, inquire of G. A. Spies, Irwin or Charleroi, Pa.
T H E stock and fixtures of the late Wm. Wetzel, B invoice \$3500. Will exchange for Chicago or Milwaukee real estate. Wm. Wetzel, Jr., Tomah, Wisconsin.
I N a mfg. city of over 100,000 inhabitants, a fine B stock of jewelry, silverware, etc., with fixtures and large fire and burglar-proof safe, invoice \$7000, at a bargain. Sales have been over \$20,000 a year through the last 4 hard years; good run of work. Retiring from business. Address, Box 833, Worcester, Mass.
N I C E, clean stock of jewelry in new and fast im- B proving town in Kansas, pop. 900. No competition within 16 miles. Frank Triplett, 1231 Harrison Street, Kansas City, Mo.
T H E finest jewelry store, most central location, in B the best town in South Missouri. Stock and fixtures will invoice about \$3000. Fixtures fine and nearly new, all cases and tables match. Will sell the whole of the fixtures alone. Rent low, and can be had for any length of time. Reason for selling, ill-health. "D 1," care Keystone office.
A G O O D jewelry business in prosperous mfg. town B of 3000 population. Good repair trade. Stock and fixtures \$700. Lock Box 54, Fairport, N. Y.
W A L N U T show cases 8 feet long, 10 inches high, B one 6 feet long, 22 inches high. W. O. McManon, Fort Clinton, Ohio.
F I R S T - c l a s s small jewelry store in Eastern New B York. Well-established, reputation A1. Good line of bench work. Delightful home town; best school and church advantages. "O 2," care Keystone office.
O N L Y jeweler and optician in the county, 7 years' B established; county seat, 1200. Extra nice people; college town; good country. Alone in suitable building; rent, \$7; choice location. Small, neat stock and fixtures; sell part or all. Reasons O. K. E. A. Maxwell, Albion, Ill.
W ATCH repairing and optical business combined B with tobacco, periodicals, confectionery business. Guaranteed net profit of \$100 per month. Price, \$650. Address, "Optician," 1468 Main St., Buffalo, N. Y.
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A N Y practical man with \$500 wishing good oppor- B tunity to obtain old-established stand cheap, write Bookser, 250 Allen Street, Buffalo, N. Y.
F I R S T - c l a s s stand in one of the best towns in the B valley; 3000 pop., fine climate. Only watchmaker in town. Rent reasonable. Will sell fixtures and part of stock. Address, Lock Box 203, American Fork, Utah.
S T O C K and fixtures for retail optical business, B worth \$1200, will be sold for \$600, 20,000 prescriptions on file. "Optician," 855 North Clark Street, Chicago.
P H O T O and jewelry business in best farming B locality in Iowa. F. J. Kamber, Alton, Iowa.
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J E W E L R Y and optical business in good Pennsylv- B ania town of 14,000 pop. Clean stock, solid oak fixtures—almost new. Good reasons for selling. For particulars, address "S 20," care Keystone office.
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I C A N tell you where you can buy a good location B for about \$500. Bench work \$85 to \$100 per month. A fine opportunity for a starter. Address, "J 4," care Keystone office.
A G O O D opening for young man, business estab- B lished 27 years. Invoice about \$3200. A bargain. Further particulars address, Lock Box 17, Niles, Michigan.

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CHRONOMETER.—Negus chronometer in good order, \$50. K. L. Bills, Muscogee, I. T.

BEAUTIFUL store, prosperous village 1000, central New York; no competition. Business and fixtures, \$100; with or without stock. Snap for jeweler and optician. Morgan, jeweler, West Winfield, N. Y.

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OXYGEN-hydrogen gas outfit for stereopticon. Sell or trade for phonograph. William Hoff, Washington, N. J.

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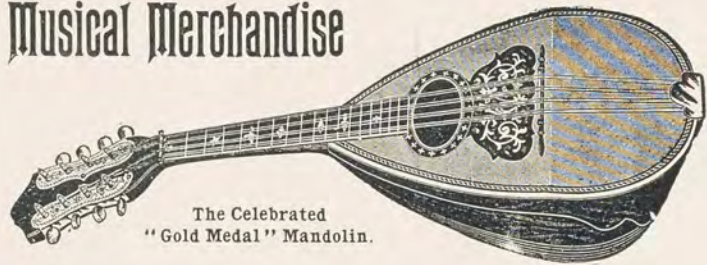
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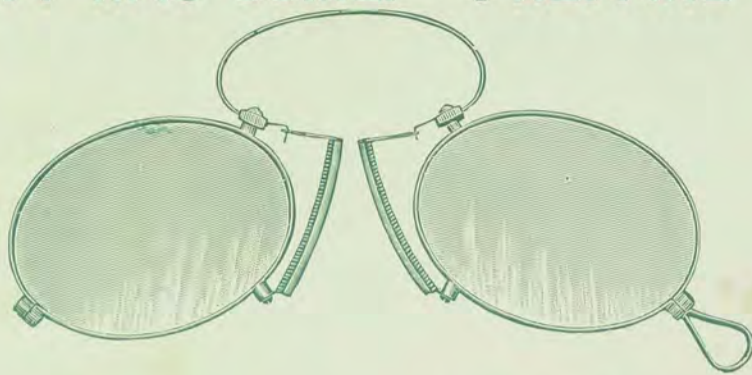
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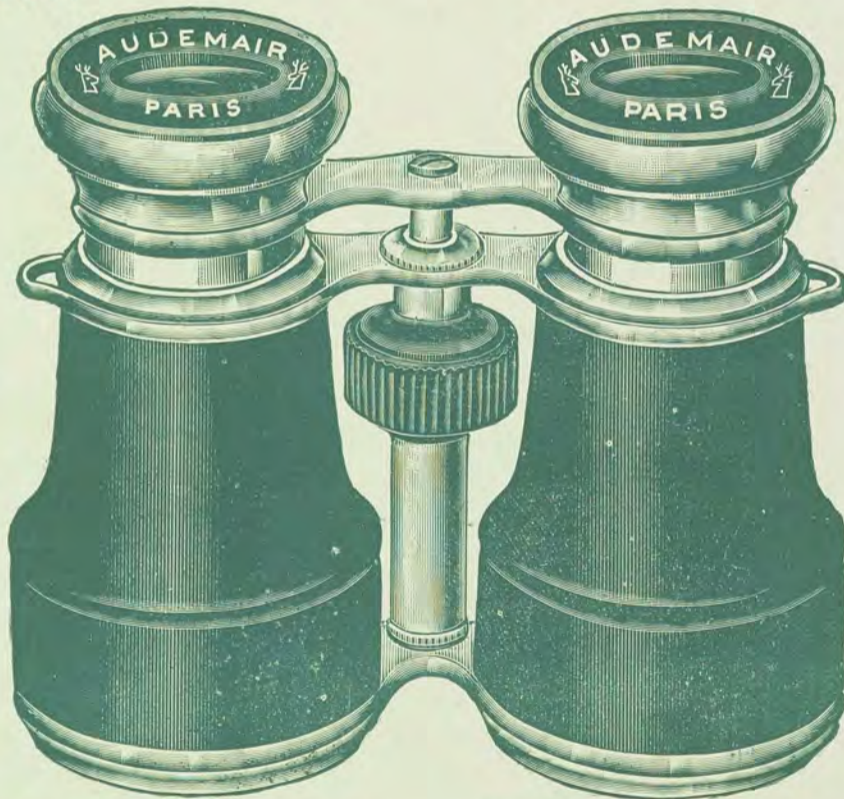
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