

TATTOOING

A TO Z

HUCK SPAULDING



A GUIDE TO
SUCCESSFUL TATTOOING

ILLUSTRATED BY TED NAYDAN

Huck Spaulding
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(A Guide to Successful Tattooing)

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INTRODUCTION

The whole purpose of this book is to help the beginner become a competent tattooist and to show them how to avoid all the costly mistakes along the way. This book covers all the aspects of tattooing that must be dealt with in order to do outstanding work and it shares with the reader many trade secrets.

This is a valuable journal for anyone who may be thinking of becoming a tattoo artist and is also useful to anyone who may have already started in the business. It represents the best and smartest methods put together during forty years of experience in the field, as well as the added wisdom from countless talks with others in the same business. When you compare tattooing against other businesses, there is much good to be said for it. The start-up costs are relatively small when compared to other occupations and business ventures. It doesn't require renting a fancy building or an expensive and demanding staff. You can choose your own hours and days of work. It is a growth type of industry in which the demand vastly exceeds the supply and will likely remain as such for many more years to come.

As time goes by, each person will develop a style and a method of their own that may vary somewhat with the ideas presented here. It is true that one cannot "learn to tattoo" from a book, but a good book can actually save you lots of problems and help with the basics to get you started in the right direction. It is a practical guide to save you from the embarrassment and problems that anyone may run into without basic or advanced know-how.

This book will teach you techniques and skills used by experts written in a plain and easy to understand style, with drawings provided to help the reader. With patience and lots of study, these skills will become like second nature to you, and you will get the skill of being a very good tattooist. With time and practice, you will develop a talent that will surprise you and amaze your friends. The course in this book puts all knowledge at your fingertips, but how far you advance will be equal to how great your ambition is. Since this is a growing industry and there is a great demand for more and better tattooists, with a little hard work, this book will turn you into one. Good luck.

PART: I
EQUIPMENT



CHAPTER ONE

The Right Way

It is important to learn the right way from the very beginning. You ought to read this book from cover to cover at first to get an idea of what tattooing is all about. Later, you can go back to each chapter and study them more carefully.

One of the first things to be considered is that you are going to be a professional. This term means that you are going to have a finely developed skill and also a professional attitude. When a professional tattoo artist walks into his own shop, all the distractions of his lifestyle should be left at home. The shop is a place of business (your investment) and should always be treated as such. It should not be a clubhouse or a place for people to hang out. If it is, your investment will not last very long and this is a good way to get a poor business reputation. A bad reputation is very hard to change and makes it very difficult to build-up any kind of a following.

Sadly, most of the people who begin to tattoo give it up very soon. This is very common and it should not happen to anyone reading this book. These people may have bought the wrong equipment that they didn't know how to use properly, experimented with it, and failed. This can be very frustrating and lead to the end of a tattoo career very quickly.

It is good advice to purchase supplies from reputable dealers. Cheap equipment does cheap work and is not the mark of a professional person. The wrong equipment will hold progress back, so do try to buy the best that can be afforded. All the tools of the trade are tax deductible,* and quality purchases will never be regretted. The majority of tattooing supplies may be purchased through mail order. As tattooing skills are developed, the choice of equipment becomes a personal matter and each individual will hit upon different combinations of equipment and supplies.

A good way to get some quick lessons in the trade is to get a tattoo(s) yourself. This will help you decide if you are actually cut-out for this type of work. Look up tattooing in the phone book and make an appointment to visit the best artist in your area. From the minute you walk in to the minute you walk out, observe as much as you can. Don't ask a million questions, just watch the artist work. A lot can be learned this way.

A hard lesson to learn in life is that nothing comes easy. Everyone must "pay their dues." With patience and time you will find that business will increase steadily. This will only happen though if you do consistently clean work. Good habits should be formed right from the start. These habits must be drilled into your head so they become like second nature.

No one should just dive into tattooing. It is better to start off gradually on a part-time basis in addition to your regular job until you are firmly established as a good tattoo artist who is known for quality work. Knowledge of small business is also important, and you may want to follow-up this book with one that deals with small business practices such as bookkeeping, taxes, state laws, etc.

*Consult I.R.S. Tax Information

One thing to keep in mind is that you are in business for yourself, and your goal is to offer the public a service of beautiful artwork in return for making a living. This means contact with a lot of people and a lot of people spells profit. Never let the public and your fans down. They will increasingly respect and trust you as long as you give them quality work. They rely on you to be competent and professional and are paying good money for that service.

Tattooing is unique because of that mysterious element of permanency involved. This draws some people to it and also may keep some away. As it is, when a piece of work is finished, it cannot easily be removed. One good mistake and you've had it. The customer's artwork is a living testimony of your skill as a tattooist and more than likely they will be sporting it around for the rest of their lives.

A TATTOO IS AN ART FORM AND THE CUSTOMER IS THE CANVAS.

The quality of your work will depend largely on knowledge of the trade, techniques and how to use them the right way. "Practice makes perfect," and with the right equipment, practical knowledge and a good attitude, you will eventually have one hot setup and this swings the odds in your favor. Through all these efforts, you will finally be able to say you are a "tattoo artist."



CHAPTER TWO Tools Of The Trade

This chapter is a materials list and their descriptions for the tools of the trade the beginning tattooist is going to need to start out. By no means a complete checklist, it will still itemize the basic tools of tattooing and the tattooist will no doubt add and subtract from this list as their experience warrants. Please don't get confused by reading this, because each item will eventually be discussed in more detail in some other section of this book.

After you've read this book several times, all of these items will tie themselves in and start to make sense. A materials list for the tattooist to consider would read something like this, not necessarily in the order of importance:

Shop Furniture

Work Table – A medium size table (linoleum or glass top for easier cleaning) to hold items needed while tattooing.

Chair – For the tattooist. Should be comfortable. Some prefer rollers to get around. You can spend a lot of time in this.

Customer Chair – A comfortable chair for clients to sit in while their tattoo is being done.

Lifter Bench – Common weight lifting bench for clients to stretch out on while doing back or legs.

Foot Stool – For the tattooist's foot to give him elevation for those who do forearm type work or balance the tattoo arm on the knee.

Bench Equipment

Adjustable Table Light – To get a good look at what you are doing from all angles. (Do not use fluorescent light.)

Paper Towels and Dispenser – For a variety of purposes from wiping ink up to cleaning tattoos.

Sterilizers

"Stericlave" Autoclave – For sterile dressings and equipment. This is a must.

Wayne Dri-Clave – Table top. Sterilizer pouches to check sterilizing.

Ultrasonic Cleaner – Cleans all residue from tubes, needles, etc.

Ultrasonic Solution – For use with Ultrasonic Cleaner.

Ultrasonic Tray and Machine Holder – Submersible tray to hold tools in while in the Ultrasonic Cleaner.

Machine Rack – To hold machines while not in use. Contains test tubes for machines.

Benz-All – A germicidal solution that is non-rusting. This does not sterilize, but keeps sterile equipment clean. For use in machine test tubes.

Tools

Tattoo Machines – At least three are needed, later building up to as many as ten. Some are exclusively for shading, others just for lining. Put your personal marks on each machine so as to always put liner tubes on lining machines and shader tubes on shading machines.

Tattoo Parts – An assortment of parts for any repairs.

Tubes – Extra tubes for machine, stainless steel.

Needle Bars – Liners and shaders. You will need many of both. Preshaped at supply house for you.

Bands – Tension is important for proper tattooing.

Feeler Gauge – For adjusting contact points.

Power

Power Unit – To run machines.

Clip Cords – The contact from unit to machine.

Foot Switch – To control machine without using hands.

Needle Making

Soldering Gun – To solder needles together and to solder needles to bars.

Plain Needle Bars – To receive needle group.

Needle Jig – To make correct needle groups.

Needle Bar Jig – To ensure placement of groups with bars.

Stainless Solder – The soldering medium.

Tweezers – To hold work.

Eye Loupe – To check work and needles.

Medical

Stainless Trays – For needles.

Three Glass or Stainless Trays (With Sealing Tops) – One tray containing liner and needle bars. (1's point one way – 3's point the other way). One tray containing shader needle bars – (4's point one way, 6's point the other way). One tray containing shader and liner needle tubes (shaders point one way, liners the other way).

Glass Quart Jar – One filled with sterile ink caps.

Spray Bottles – To hold isopropyl alcohol, green soap mixture (three parts water/one part soap), etc.

Carbolated Vaseline – For stencils and skin.

Antibiotic Ointments – Such as Bacitracin, for healing.

Green Soap – Cleanup and preps. Does not sterilize.

Tongue Depressors – To apply ointments.

Disposable Razors – For skin prep.

Bandage – For tattoos.

Handi Wrap – For tattoos.

Hospital Tape – To adhere dressings.

Rubbing Alcohol – Disinfectant for cleanups. Does not sterilize.

Scissors – Stainless hospital quality.

Hemostats – Stainless hospital quality.

Gloves – Surgical latex gloves for tattooing.

Stencil

- Acetate** – Plastic sheeting for stencils.
- Cutter** – To put groove in acetate.
- Powder** – Stencil medium for use with acetate.
- Ink** – Hecktograph Ink.
- Tracing Paper** – For ink tracings.
- Deodorant Stick** – For applying stencil to skin.

Art

- Inks** – A color assortment and black.
- Ink Bottles** – Four ounce twist top.
- Caps** – To hold ink.
- Holder** – To keep caps in place.
- Flash** – Lots of designs are needed.
- Pencils/Watercolors** – To color flash sheets.

This list is not totally complete, but it is a good guideline to get you started. Few people can purchase it all at once and must slowly put it together. Don't be frightened by the long list, all the equipment is quite small and portable. Compared to other businesses, this list is pretty simple and not as expensive as some practices can be. Buying in order of importance and practicality first seems to be a smart direction to follow.

Tattooists must have an organized area around them for any kind of efficient work. The universal approach is a work table in front of the worker for proper and easy location of items. You may make the table, but the best and most professional one you can afford would be a wiser choice. It's important to make sure it is flat, sits sturdy, and is easy to clean and keep clean. It should also be large enough to hold everything you will need. It is advisable to have a knee cutout in the front of the table (rather than solid) so the customer on some occasions can get right up close to the table to keep your reaching to a minimum. A standard table is about 20 inches wide, 48 inches long and a comfortable height off the ground. The top can be formica, finished hardwood or preferably stainless steel or glass. A small sink with hot and cold faucets should be mounted in the top off to the side. Sit in a chair beside the sink, facing the farther end of the table so the sink will be on your right side. If you are left handed, everything will be the opposite.

Everything should be within easy reach. The things used most often should be located the closest to you, and the items used less often are located further away. The items used the most are things like caps full of ink, the carbolated vaseline and the spray bottle of green soap. Also, the lamp and paper towels should be within easy reach. Slightly further back, but still within easy reach, is the spray bottle of alcohol, extra ink caps, three washes to clean the ink out of tubes when colors are changed, going from the first distilled water to the second distilled water to the alcohol last. A little further back are bandage supplies, extra needle bars, tubes and inks, with machine rack just barely within reach to hold spare tattoo machines or another machine with a different set-up. One for outlines and one for shading and coloring.

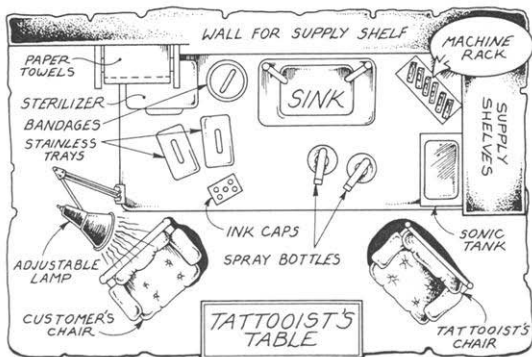
Some women would like to have a little privacy, so it is a good idea to keep a spare tube top handy for them, so they don't get any ink on their clothes. Many women will ask for a private session for more privacy.

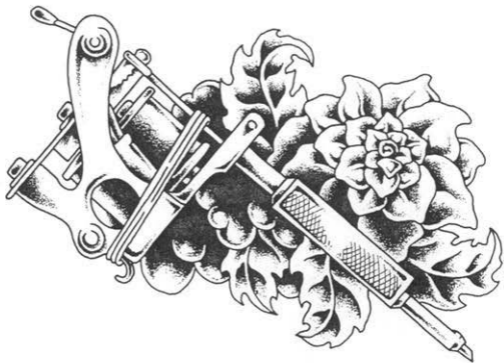
An office chair on wheels can be used to move around easily to get in different positions. It may or may not have arms on it, has an adjustable back rest and the height should be adjustable also. Arm rests work good for steadying the hand while tattooing.

A folding chair can be used for the customer to sit in. A front rail between the two front legs makes a good foot brace for the tattoo artist when working on an arm tattoo. Some like to work off their lap and find it handy to brace elbows on their leg while doing a bicep, forearm or ankle.

To do a back piece, have them sit facing the back of the folding chair with one leg through the opening in the back so they don't have to spread their legs so far apart. This position is easier for the artist as long as the tattoo is on the upper part of the back. A pillow under the customer's arms draped over the back of the chair will make it more comfortable. If the piece is too low down on the back to do comfortably in a sitting position, lay them down on a weight bench. The weight bench works well for chest pieces, stomachs, legs and backsides. You should move the customer where you can reach them best, and still have the ink, sprays and paper towels within easy reach. Then adjust the light so you can see well.

This outline is a basic set-up to get you started. It is the duty of every tattooist to familiarize themselves with this, then take over where this chapter has left off, customizing the area to suit their own needs.





CHAPTER THREE

Machines and Power Sources

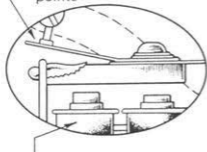
It is often said that a machine is no better than the person operating it. This can also be applied to tattoo machines. A tattooist must have confidence with his machines and must learn to run them properly, not have them run him.

Tattoo machines may vary in appearance but they all run basically the same, and perform the same function, driving a needle up and down very fast, perforating the skin and driving ink in as the operator steers it along while leaving a trail behind. This is done when the machine is connected into a power source and turned on, a full electrical circuit runs through it. When this happens, the two coils become magnetized (an electric magnet) and attract the metal armature bar down to it. As the armature bar moves down, the needles move down. When this happens, the contact points separate from each other, causing a break in the electrical circuit. As soon as this happens, the machine stops, the coils become unmagnetized and the armature bar springs back up. This makes the needle go back up. When it springs back up, the contact points touch each other and make a circuit again, and this starts the process all over. The machine becomes magnetized and unmagnetized and the needles go up and down. This happens extremely fast, too fast for the eye to follow. All that can be heard is a buzzing, as the circuits separate and contact again.

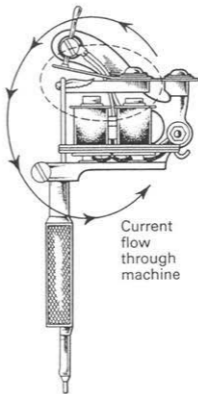
WORKINGS OF A TATTOO MACHINE

1

Machine is on. The circuit is completed through the contact points

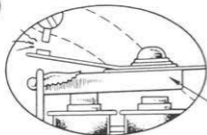


The coils become electric magnets



Current flow through machine

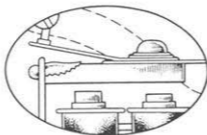
2



The armature bar gets attracted to the magnet. It gets pulled down and the needle bar (and needles) attached to it move down. As bar moves down, the contact points separate and breaks the circuit.

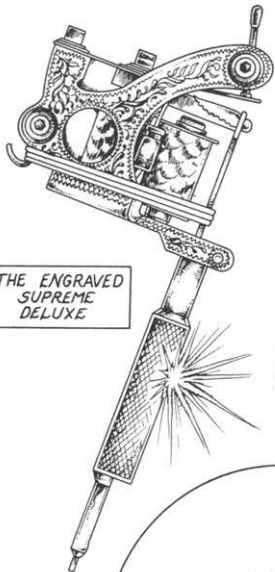
3

When the circuit breaks, the bar springs back up. The needles move up.

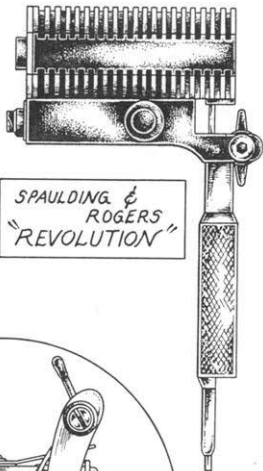


When the bar springs up, the points make contact and the circuit starts again, coils become magnetized.

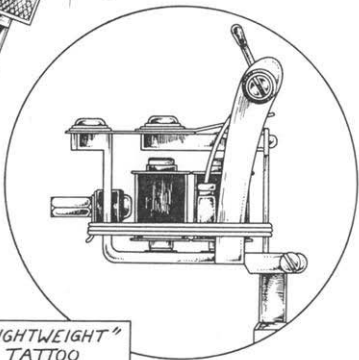
TATTOO MACHINES



THE ENGRAVED
SUPREME
DELUXE

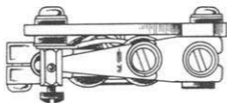


SPAULDING &
ROGERS
"REVOLUTION"

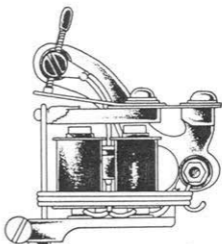
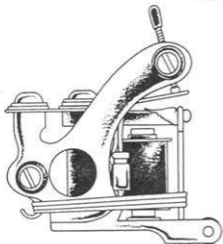


"LIGHTWEIGHT"
TATTOO
MACHINE

SUPREME TATTOO MACHINE



TOP
VIEW



BACK
VIEW



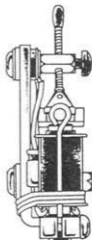
LEFT
SIDE



RIGHT
SIDE



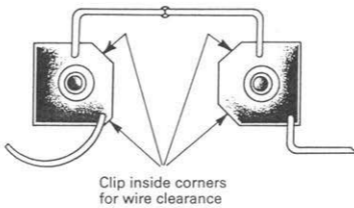
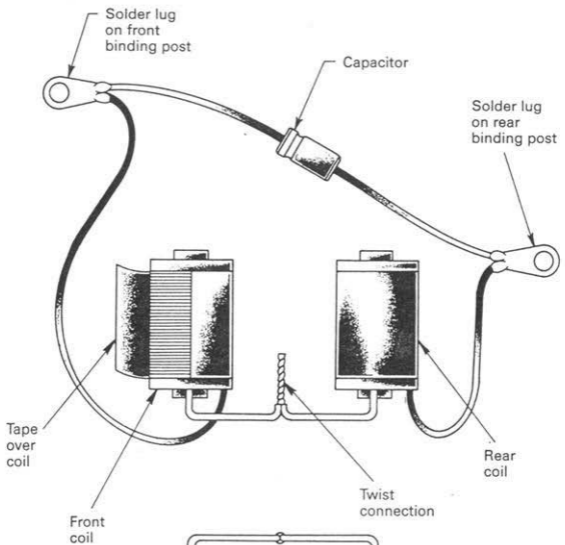
BOTTOM
VIEW



FRONT
VIEW

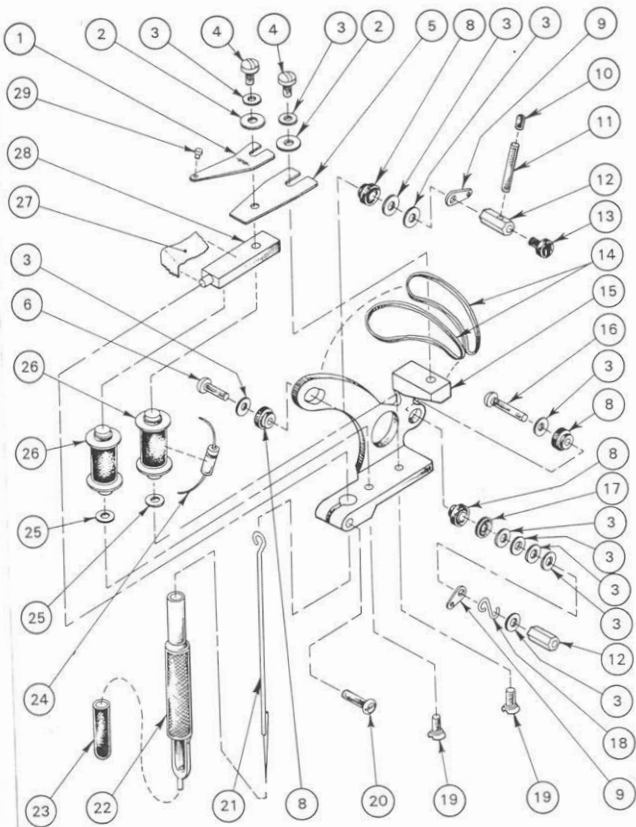


TATTOO MACHINE WIRING DIAGRAM



Bottom view of coils

SUPREME TATTOO MACHINE

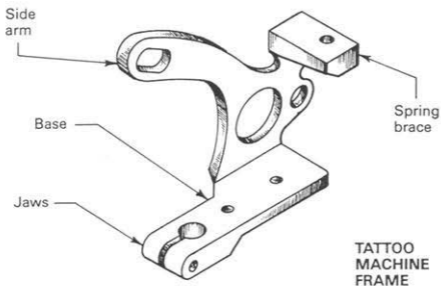


Parts List for Tattoo Machines

1. Front Spring
2. Washer - 10/32"
3. Washer - 8/32"
4. Screw
5. Rear Spring
6. Screw, Binder Head - 3/4
7. Screw, Binder Head - 3/4
8. Extruded Washer, Black Nylon
9. Soldering Lug
10. Cap, Contact Screw
11. Contact Screw, Sterling Silver, 6/32 x 1
12. Binding Post
13. Screw, Black Nylon, 8/32 x 1/4
14. Rubber Bands
15. Machine Frame
16. Binder Screw (3/4)
17. Washer, Black Nylon, Flat
18. Band Hook
19. Screw, Flat Head Machine, Stainless Steel, 8/32 x 1/4
20. Screw - 8/32 x 3/4
21. Needle Bar
22. Needle Tube
23. Tube Cap
24. Capacitor
25. Steel Shims
26. Machine Coil
27. Hospital Tape
28. Armature Bar
29. Contact Point (Sterling Silver)

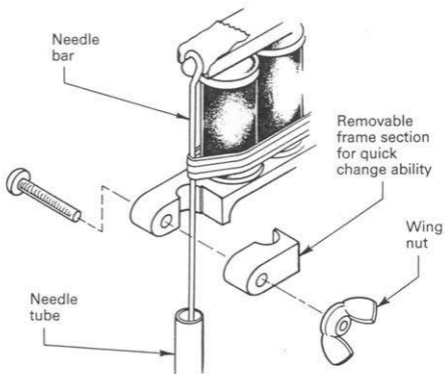
Parts Description

- A. **Machine Frame (15)** – Although many frames look different, they all have these basic features; the jaws in which the needle tube (22) is clamped in (via wing nut (20)). The base of the frame is where the coils are mounted. The spring brace is in the rear and supports the rear binding post and armature bar. The side arm holds the front binding post.



- B. **Machine Coils (26)** – Steel Core, come in eight or ten wrap (wraps of wire around core) cotton or enamel wrapped wire. These coils act as electro-magnets. They attach to base with screws (20). Spacing washers (25) ride underneath cores.
- C. **Machine Springs (1) and (5)** – Front spring holds contact point (29). Rear one attaches to armature bar (28) and spring brace on frame with screw and washers (2, 3, 4). Provides resilience for up and down needle motion.
- D. **Armature Bar (28)** – Provides steel mass for magnetic pull. Also is link to tattoo needle (21).
- E. **Front Binding Post (12)** – Holds contact screw (11) and adjusts for alignment by use of nylon washers. Contact screw can be locked in position by lock screw (13).
- F. **Rear Binding Post (17)** – Provides contact point for clip cord. Adjusts for alignment with washers (8).
- G. **Capacitor (24)** – Usually 10, MFD, 25 volts standard. Can be fitted to any machine to minimize sparking and arcing.
- H. **Bands (14)** – Provide even pressure on needle bar. Should be replaced often.
- I. **Tubes (22)** – Use only Stainless Steel open Sanitary Tubes. Encases needle and bar (21). Provides good gripping surface.

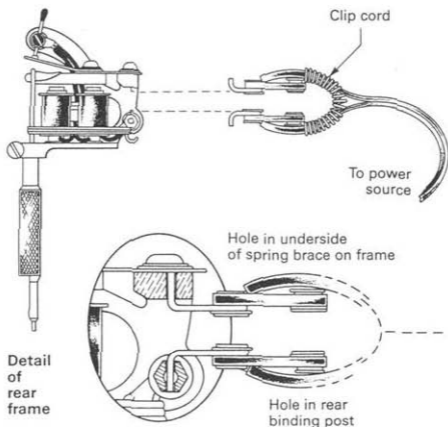
SPAULDING & ROGERS "QUICKCHANGE" MACHINE



One more type of machine should be mentioned. The very latest state-of-the-art in tattoo machines is the Spaulding & Rogers "Revolution" machine. Totally different in appearance and operation than the regular tattoo machine, it delivers more efficient needle movement, runs smoother and virtually noiseless and is considerably lighter in weight. Also to note is the lack of a steel frame, the Revolution is made of indestructible high-impact nylon plastic and the workings are totally self-contained. A big advantage also is the lack of rubber bands, as this machine utilizes a patented action cam to not only supply movement, but also to securely hold the needle bar. This new machine is changing the tattoo industry and is worth checking out.



The electrical link between the machine and the power supply is the clip cord. One end has two phone jacks for the Power Unit and the other a spring clip connecting device. One hook from the clip cord slips into the hole located in the rear underside top part of the frame, the other hook goes into the hole located in the rear binding post.



Tattoo machines run on direct current. In the beginning, you may want to use a battery set-up. They are simple and cheap at first. The drawback is they have to be maintained and charged.

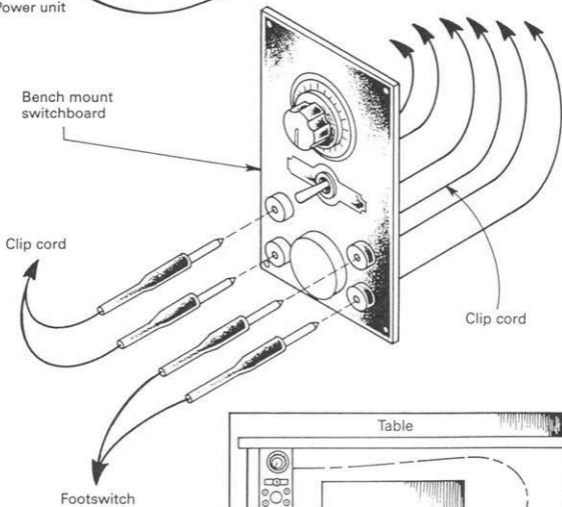
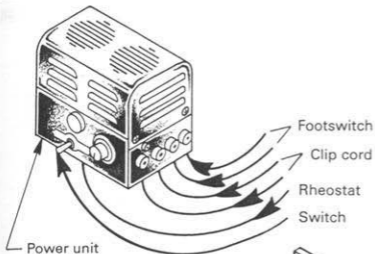
You can get a good Power Unit for less than the price of two batteries. A Power Unit is handy because it can be plugged into the wall socket, and is fairly trouble-free. Excellent units are available on the Market today. Even if a Power Unit is used, a battery set-up is a useful piece of spare equipment to have around.

Also, if you have a cellar, you may want to use two 12 volt auto batteries and a trickle charger. If so, use caution as overcharged batteries are highly explosive, and you don't want any battery acid around the area of your work.

A rheostat mounted on a bakelite panel provided with connecting posts may be available from your tattoo supply house.

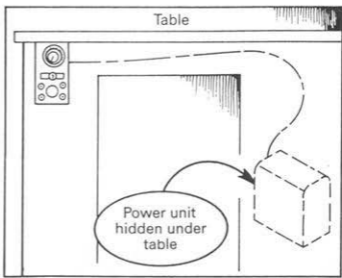
Power Units come in different sizes. Buy the best one that you can afford. A good power supply is very important.

Remove bottom panel of unit, attach corresponding wires to counterparts using alligator clips

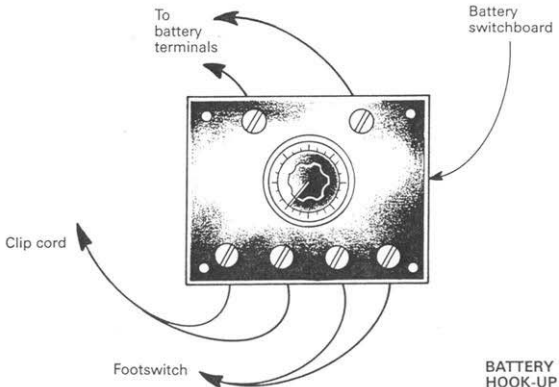
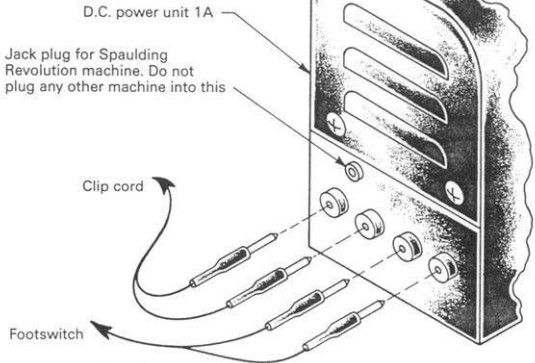


Switch board panel mounted on desk side for easy use

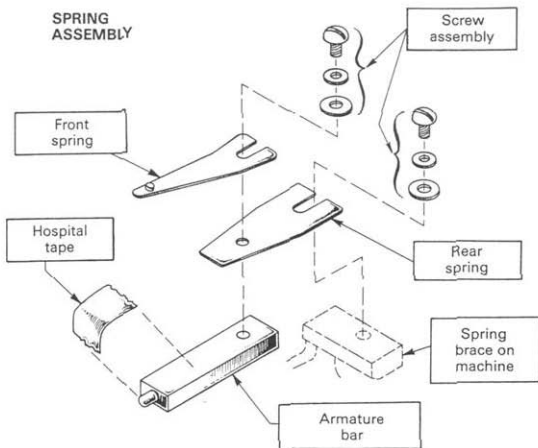
Work bench



POWER UNIT HOOK-UP



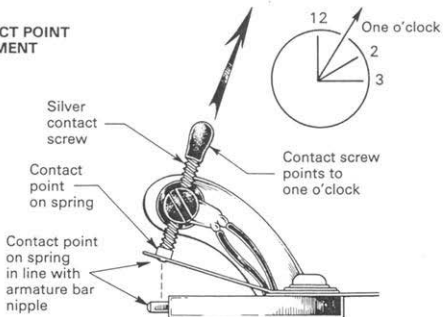
SPRING ASSEMBLY



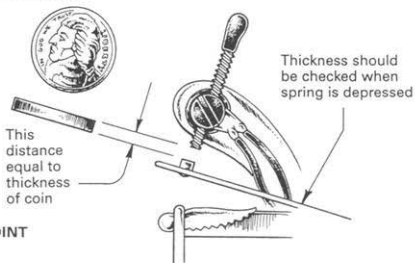
Next, line up the contact point in a direct line over the nipple on the armature bar and tighten. Then line up the contact point on the front spring in a direct line with the contact screw. The rear spring should be snug against the rear screw in most cases. Tighten rear screw. The contact screw points to One o'clock, when you hold up the machine and point the front (tube end) to your left. It is in this position when it is new, and should stay in this position.

Attach the clip cord to your machine and turn on your power pack. Holding the machine firmly in your left hand by the frame, slowly turn the contact screw down (clockwise) to meet the contact point on the front spring. Be careful to only touch the contact screw by the rubber tip or it will shock you. If the rubber tip is missing, you can wrap a piece of electrical tape around the end, or even a rubber band in an emergency.

CONTACT POINT ALIGNMENT



As you keep the foot pedal pushed down, slowly turn the contact screw down to meet the contact point. Your machine will start to run when the contacts get close enough together to make a circuit. A general rule of thumb is that the gap between the shaver points when you push down on the armature bar is the thickness of a nickel. The gap between the points on the liner should be about the thickness of a dime. Nickel shaver, dime liner. This distance will change slightly with each machine and with the shape the springs are in. If they are weak, you can compensate by turning down the contact screw a bit, not too much. This measure has to be done with the machine off and the armature bar held in the down position. On a machine with heavy-duty coils, this measurement may be doubled. Another way to do it, is to eyeball the distance the armature bar is travelling, as the machine runs, while you adjust the contact screw. When the distance the armature bar is travelling up and down is about the same distance as a dime or a nickel, depending on which machine you are tuning at the time, then you are right.



CONTACT POINT GAP

CHAPTER FOUR Setting Machines

Keeping your equipment running smoothly is very important and takes more than just a little luck. You have to understand all aspects of the machines and how to tune them.

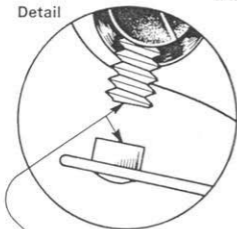
One of your duties will be to check the contact points on a regular basis. Keep the points and the contact screws in good shape so they will make good "contact."

To set the points, be sure they are first clean and smooth. A point file can be used to flatten the surfaces if either one of them is burned or pitted. Silver points are readily replaceable and if they can't be filed back into shape, put on a new spring with a new contact point on it, or just file off the old point and put on a new one. If it can be repaired, do so, taking care not to file off any more of the point than you need to. Emery cloth is very effective in cleaning up both the points and the contact screw, also a burnishing file works well.

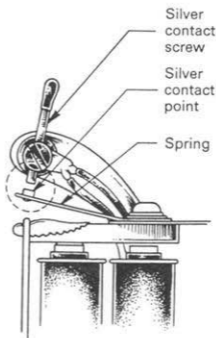
Use a light touch on the procedure, or you will go through a lot more contact points than necessary. A quick buff job when they get slightly pitted is about all that is required. Be sure to buff the contact screw too, so you will have good contact there.

CONTACT POINTS OF TATTOO MACHINE

Detail



These "contact" surfaces must be cleaned and filed smooth.

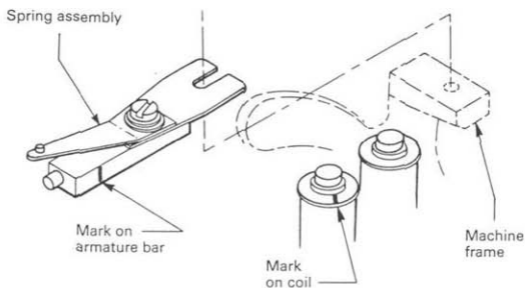


To get longer life out of the points, spray them with a good contact cleaner occasionally.

After continued use, the front spring that holds the contact point and the back spring that holds the armature bar to the frame will weaken and should be replaced. If your coloring is getting sketchy, it could be weak springs; one or both of them. If they are weak, they won't have enough bounce to penetrate the skin anymore and are springing back before any depth is attained. Before removing spring and armature bar, put a mark on the side of the armature bar and continue the mark across the center of the washer on top of the front coil. (See Diagram.) After you have made your repairs, be sure both marks line up when replacing the armature bar. This is important because the armature bar has been seated in on the top of the front coil and should go back in the exact same place for top performance of your machine.

To replace the springs, take needle and bands off, loosen the set screw on the front binding post and back the contact screw out four or five turns. Then loosen the rear screw on top of the machine and remove the entire assembly consisting of the rear spring, the armature bar and the front (contact) spring.

MARKING BAR AND COIL



Remove the screw that is holding both springs to the armature bar. First, put the screw back in the hole in the rear spring and start it into the armature bar. Make sure you still have both washers on the screw, on top, above the springs. Next, put on the front spring, placing it on top of the rear spring and under both washers. This front spring will just slide on the screw. Tighten finger tight. Before replacing assembly, take this opportunity to buff your contact screw, removing any pits.

To replace the assembly, slide the rear spring under the loosened rear screw, making sure the rear spring is back all the way against the screw and under both washers. Tighten finger tight.

On liner tips there will be one groove. On shader tips there will be several separate grooves, like railroad tracks. On the round tips, use a round Swiss needle file to smooth it back out. On flat shader tips and your one needle liner tip, use a square Swiss needle file. If you have to file a tip to get it to stop splattering, be sure to clean it out good with a brush. Sterilize it before you use it again.

The splattering could come from one or all of the above. If one thing doesn't work, try something else, until you figure it out.

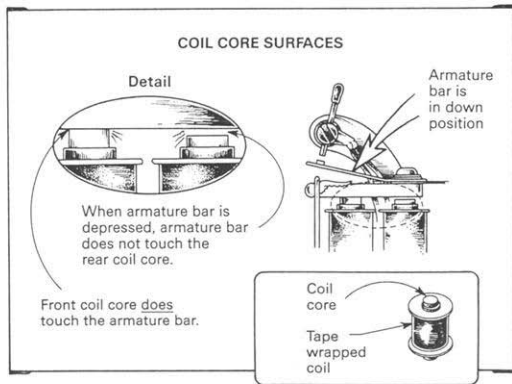
If none of the above worked, change the needle bar to see if that helps.

If that doesn't work, check the springs and replace them if necessary. Sometimes one side of a spring will break where it's being held by the screw. It's hard to spot.

The hard part is, if it starts splattering in the middle of a tattoo, you have to be able to figure it out, or continue with a splattering machine. This will take a lot longer to do if you don't know what's going on and your nerves will be shot from anxiety dealing with it.

Tips On Assembling Tattoo Machines

If the tube is tight in the frame jaws, the slot gap will have to be widened. This can be done by dismantling the machine and clamping the frame in a vice and sawing through the gap with two fine tooth hack saw blades. Screw the coils to the frame base and use a straight edge to see whether the centers of the coil cores are in a direct line with the center of the tube hole and the center of the spring hanger. If one or both are slightly off center, loosen screw and insert a thin piece of copper shim on the low side under core. Tighten screw and see how it looks; you may have to shift shim several times to get it right.



When the machine is running, the armature bar strikes the front core of the first coil, but must not be allowed to touch the rear core. If it does, file a bit off the rear core surface.

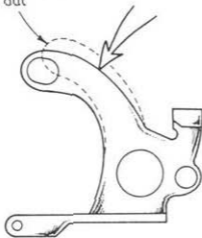
Whenever filing, first mark the surface with Prussian blue (available at art supply shops) so you will see just what you have done and where you are going. Afterwards, remove filings with a Q-tip dipped in glycerine. On some frames, it's necessary to remove coil to file.

Also, on most machines, you can move the spring-hanger slightly from side-to-side or back-and-forth a bit. Clamp the frame base in a vice and grasp spring-hanger with vice-grips and bend gently. Armature bar can be lowered slightly by filing surface of spring hanger, which you will have to do after you bend it in order to level the surface.

If points don't meet to make a perfect contact, you can move side-arm in or out and on most machines fore or aft a bit – be sure the base is tightly gripped in vice when doing this. The significance of this is that shading machines perform better with longer fore and aft springs – even $\frac{1}{8}$ of an inch can make a remarkable difference.

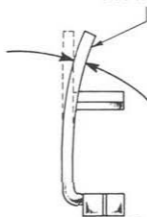
FRAME ALTERATIONS

Side arm could be slightly bent in or out



Side view

Side arm can be slightly bent side to side.



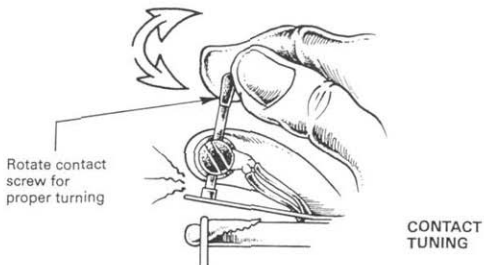
Front view

Tension is achieved by the rear spring. Remove needle bar and holding machine in left hand by the tube, depress armature bar with left thumb and ease it upwards until contacts meet. There should be enough tension so you can see the front spring rise a little more when contacts meet and you release your thumb – then you've got it right. You can buy a gauge from a tattoo supply house to duplicate this same tension when you replace the rear spring.

When coils are set where you want them, add a drop of liquid thread to the machine screws the last time you turn them in. This will assure a secure and tight fit. This can also be done with the two screws that hold the posts.

If you choose to wind your own coils, use #24 insulated magnet wire and a hand turned coil winder. Use a point file to keep points clean.

Listen very carefully to the buzz of your machine. You might have to turn the contact screw in or out just a little until you get that right sound. It should sound real smooth. Listen carefully to the sound of the machine as you turn the contact screw and you will be able to "hear" the ideal setting if you pay attention. It won't be choppy and clatter, yet it will have plenty of power and have a long enough stroke to allow the needle bar to travel between 1/16 and 3/32 inch up and down.



Once you get used to the "purr" that it makes when it is running good, you will be able to keep your points set at optimum efficiency quickly and easily just by hearing it. When it begins to "purr," take your foot off the pedal and tighten the set screw to lock the contact screw in that position. Then push the foot pedal again to be sure that it is still tuned "right" and doesn't need any further adjustment.



After you attach the tube and needle bar, you may have to readjust the point gap slightly to compensate for the extra weight. If so, loosen the set screw and push down on the pedal as you screw the contact screw down a tiny bit more, listening to the sound of the machine until it is running smoothly and strongly. Just remember that the smoother your machine runs, the better it will tattoo for you.

If you are going along and all of a sudden your machine quits, first check to see if it is your machine or your power pack. To do this, try your other machine to see if it will work. If it is your machine and you can't fix it on the spot, you can always put your needle bar and tube on your other machine and reset the point gap as a last resort to finish the tattoo.

If your machine won't run at all, it is either a short or an open in your circuit. First check to make sure your points are clean. If there is something caught between them, it will break the circuit. Hold the armature bar down with your thumb to open the contact and blow hard on the points. If this doesn't clean them, try pulling a small strip of paper through the points while they are closed. If this doesn't work, try pulling a strip of emery cloth through them, grit side up, then grit side down. Then blow to get any grit out. If this works, you will probably want to readjust the point setting slightly to get it buzzing "just right" again.

Another area that shouldn't be overlooked is weak coils. If your machine won't run at all, or has very little power, it could be your coils. If your coils are bad, you can replace them by taking out the two screws in the bottom of the frame, being careful to note which washers go where, under the coils. Replace with new coils. When you melt the solder to disconnect the old coils, reattach your new coil wires at the same time. If your machine has a capacitor on it, you may want to replace it too, at the same time. (Consult Wiring Diagram in Chapter 3.)

If your machine just up and quits on you all at once, or won't run when you take it out, look for any loose or broken wires or connections. The tattoo machine is really quite simple, with few adjustments and fewer moving parts. Due to the constant vibration of the machine, you have to constantly fool with it, readjusting and tightening this and that. Daily maintenance is the key.

If you are having trouble with ink splattering out your tube tip, there could be several reasons for it. A slight splattering is normal. Sometimes it is caused by ink overloading. The reservoir on some bottom ends doesn't allow for much ink. A square tip is more prone to splattering than a round one. Some lighter frames tend to splatter more than others. Check the tube tips for wear, change them before they wear down to a sharp edge. A machine that is properly tuned and used puts the ink out uniformly and rarely splatters.

By paying attention to these points, you will most likely eliminate any problem:

First, make sure your needle is in the tube right with the needle on the bottom side of the tip. Make sure the open side of the needle bar loop is to your left when it is attached to the armature bar.

Second, make sure the needle bar isn't hitting the side of the tube as it goes up and down.

Third, make sure the rubber bands are all in good shape and are all pulling evenly. Pull them away from the needle bar one at a time and snap them back into place. Check them to be sure they aren't weak or worn. It doesn't hurt to replace your rubber bands every 15 or 20 hours of tattoo time. They don't cost much and if they aren't doing their job properly, you can really tax your brain trying to figure out why it's splattering.

Fourth, make sure your points are properly set.

Fifth, look at your tube tips. If they are worn, you will get splatter. Take out the needle and look inside the tip. If there is a groove where the needle rides, file it smooth again. Be very careful not to file away any more of the metal than you have to. The tip is made of soft metal and it's easy to get carried away. Be careful, a little at a time.

Once the machine is just right, never make any further adjustments. The more it's run and the older it gets, the better it will function.

On the left side of the machine you will see where the wire from both coils are soldered together. Squeeze some G.E. Silicone rubber into this area to prevent bare wire from shortcircuiting on frame. As a matter of fact, it's a good idea to do this all around between the base of coils and base of frame to prevent moisture from entering coils. Use a toothpick to smooth.

While the machine is running, there will be continuous arcing. Most machines come equipped with capacitors to eliminate arcing and cut down on point wear. If you put them on yourself, use one that is 25 volts and 10 MFD. This isn't critical and you may want to experiment with different ones.



CHAPTER FIVE

Holding Machines

Holding a tattoo machine correctly entails much more than just getting a good grip on it and digging right in.

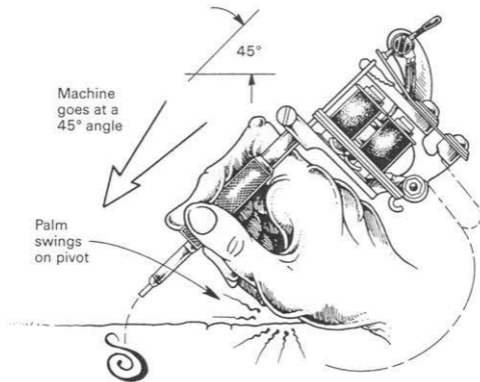
All needle tubes should be stainless steel and all correctly manufactured stainless steel tubes come complete with a knurled grip on them. Knurling is a machinist's term used for pieces of metal with lathed on "criss-crosses" engraved in the metal, commonly used for grip-type surfaces. This is what the needle tubes should have on them. Metal knurled grips are much better than plastic or tape. With plastic type grips, the hands seem to stick more to them, and shifting of the machine can be erratic. Metal knurling provides a sure grip but also allows readjustment of the fingers much easier in case some shifting around of the machine is necessary.

The basic hold on the needle tube (already set-up in the machine) is the standard pencil-grip. A tattoo machine is held very much like a pencil or a pen, but with a few differences.

When first holding a tattoo machine, you will notice that there is a certain heft to it. Some say they are downright heavy. Don't let this disturb you because in due time they will feel quite natural. The muscles in the hand have to get used to working with the machine. Remember, you will be handling and using these machines for a living and tattoos can take time to put on. Large pieces can take many hours of handling a machine without much rest in between. All of this can be quite tiring at first and this is why you must build up muscles in your hand so you won't get cramps or muscle aches. Before even tattooing, practice holding the machine as much as possible. Try to constantly hold the machine and "air practice." This can be done while watching T.V., talking or just about anything. Several hours a night of practice will have your hand muscled up in no time. Muscles build up fast and get used to a routine pretty quick. Still, it might take several weeks to properly break in the muscles.

Some tattooists prefer light machines and some prefer heavy ones. This is why some manufacturers offer such models as "lightweights," but it should be kept in mind that any machine, no matter how hefty it might feel at first, will take some getting used to. But in the long run, it will feel quite good and stable to use. The heft of a machine also acts as a "shock absorber." The tattoo machine when being used gives off vibrations and these can get you tired awfully fast. Just like certain stabilizers or heavy barrelled guns, the more metal there is, the more energy it will absorb, passing less vibration on to you. This is the idea behind tattoo machines and it should be kept in mind that the heft of a machine can actually move in your favor.

Practice holding machines and drawing with the clip cords engaged. The slight pull to the rear caused by the clip cord has a different feel than a machine that is not hooked up. Get used to this since this is the set-up that will be constantly used.



When tattooing, the hand rests on the skin, just like writing with a pen. The tube is held in the hand like a pen and the rest of the machine is naturally behind and above the knuckles. The palm of the hand is rested on the skin or the base of the work. This is a steady position and creates what is commonly called the "bridge." The palm always goes down first and then the machine is brought down.

The machine is moved around on the skin by using the palm as a pivot. By swirling the hand on this palm pivot, the machine swings easily into position. Sometimes rubbing a little carbolated vaseline on the palm and little finger makes it a bit easier. Just make sure too much is not put on to cause slipping and sliding.

The Bridge gives a solid foundation for tattooing and must be practiced for perfection. It will keep the hand steady and give you confident lines. In tattooing, every line counts and the professional builds on a solid foundation.

CHAPTER SIX

Setting Tubes

This chapter requires some careful study since it covers a simple but important process. This process is putting needle bars in tubes and adjusting the tube, bar and machine for proper tattooing. This will become second nature after awhile. Never, ever rush this process because if you're not paying close attention to what you are doing, the needle tips are going to get all damaged. You are going to have to do this every time the tubes and needles are sterilized and the machine has to be put back together. If business is good and proper sterilization is done, you could be assembling machines several times a day.

Tubes and needles should be sterilized the first thing in the morning, assembled and wrapped in clean tissue until needed later in the day. Since this process is done for every tattoo (sterilization, assembling the tubes, needles and machines), it is easy to see how a person would rush this process, especially if people are waiting. (In this day and age, you have an obligation to every customer to be sure that this procedure is done correctly).

The key is to be absolutely familiar with the correct assembly process and make it a point to concentrate every time the tubes are assembled.

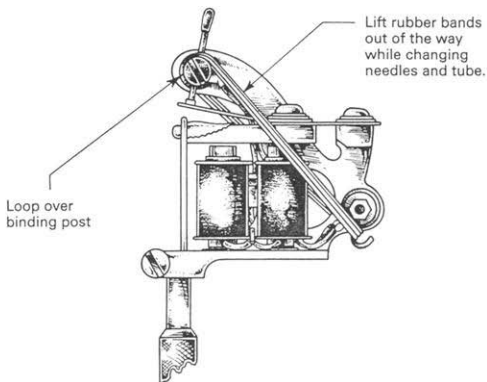
New machines bought from suppliers should arrive properly set-up, but the tubes and needles are not sterile. They still have to be disassembled and sterilized. They should be studied to get familiar with a properly set-up machine. It is a good idea to buy at least two machines in the beginning. This way one will be already assembled from the manufacturer as you take the second one apart. This will be a good guide in case you forget how they go back together. Hopefully, any confusion here will be avoided with the information presented in this chapter.

Take a hold of a new tattoo machine. With the tube to the left and the coils going to the right, let's study a couple of things. Study the Parts Diagram to learn just what an armature bar, springs, coils and contact points are. Notice the spring and contact points on the armature bar. Observe the loop on the end of the needle bar and where the tube enters the frame and the rubber bands. Finally, check out the tube tip with the needle tips retracted inside the tube end. Now, fully depress the armature bar against the coils. The needles move downward. Observe the gap being created by the contact point on the spring being separated from the contact screw and the length of the needle tips that are coming out and being exposed out of the tube tip. This is the electrical motion of the tattoo machine when it is being operated. Get familiar with this motion and understand it because it will come in handy when disassembly and assembly procedures are explained.

Takedown Instructions

Now that the machine set-up has been explained, needles and tube disassembly will be discussed. Begin by loosening the machine screw which is located where the tube meets the frame. This will loosen up the tube by easing the pressure on it by way of the machined slot in the front of the frame. If tube is a little snug, a light prying in the jaw gap will open up the hole. This screw can be in all different varieties, according to the machine: Wing nut, sunken head, allen or even "quick-release" models, but their function is still the same, to apply adjustable pressure on the tube to cause it to lock up.

The next step after the lock screw is loosened is to lift the rubber bands up off the needle bar. Pick them up and over the needle bar and place them around the contact screw, out of the way.



Next, pop the needle bar loop off the taped armature bar protrusion. When this is done, work out the tube with the needle in it. When tube is free of machine, lift out the needle and place it in a steel tray. Once again, when handling needle bars, use caution at all times. Whether inserting needles in tubes or removing them, be extremely careful not to touch the points to any surface so they won't be damaged. The needle bar and tube are now free to be sterilized.

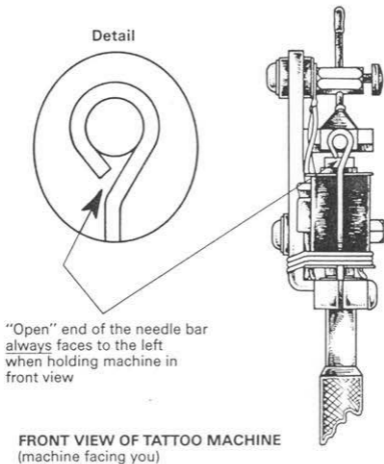
Assembly Instructions

Assembly instructions are about the same in reverse as the disassembly instructions, but let's go over a few important details.

Slowly insert sterilized needle bar into sterilized tube. Be extremely careful not to bump the tips of the needles against anything, including inside tube walls or edges. Then insert tube (with bar inside) into the frame hole. Finger tighten the locking screw.

At this point, let's recall a couple of facts. For sanitary reasons and ink clogging, the tube tip is semi-cut away. This is an open-sanitary tube. This opening must always be facing forward of the machine, not to the rear of it or sideways. Make sure when inserting tube into frames that the open section of the tube is always facing squarely forward, then finger tighten the set screw.

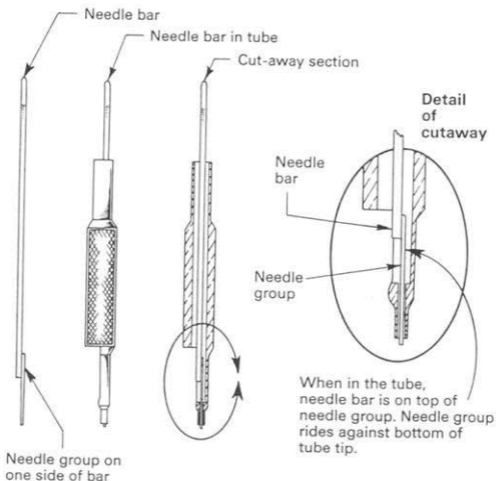
Notice that the needle bar has a loop on the end. This loop slips over a piece of tape molded onto the end of the armature bar. (If the tape needs replacing, use a piece of white surgical cloth tape about one inch long and mold it around the bar.) The loop has an "open" end. When machine is facing left (tape on left, coils and frame to the right), the open end of the loop is always away from you (or when held straight front view, the loop is always to the left).



This is very important and worth repeating. Open end of the needle bar loop is always away from you and is designed this way. Needles must always ride against bottom of the tube tip (the trough) and this ensures this. Look into open end of tube in the manufacturer's set-up machine. Observe that the bar itself is on top of the needle group and is soldered that way. The needle group rides underneath the bar against the back of the tube. When the open end of loop is away from you, needles automatically will be positioned against the bottom. With open loop facing away from you, you can tell at a glance if the needles are properly placed or not. It is impossible to do any kind of good tattooing any other way. (i.e., with needle bar positioned differently.)

With open end of loop facing away from you, slip the loop over the tape covered knob on the armature bar. It should be a fairly snug fit. Then place rubber bands over the needle bar like the way the machine came. Use one, two or three bands to put tension on needle bar, and keep them as low down on the machine as possible (see drawing Side View).

Now that the machine is basically put together, the tube has to be finally adjusted. This will vary the length of the needle tips that are exposed when coming out of the end of the tube. Press the armature bar down against the coils and hold it. Loosen the set screw and adjust tube either up or down to allow needle tips to protrude out the end between 1/16 and 1/8 of an inch when the armature bar is fully pressed forward.



Let go of armature bar so it springs back up against the contact screw. Needles should not stick out from tip of tube at all, or just ever so slightly. Make sure tube opening is facing squarely forward and tighten the set screw. The machine is now set-up for some serious tattooing. The machine should be hooked-up to run and needles checked for correct movement.

(See previous chapter on machines for proper instructions on hooking up a machine.)

Good tattooing can only be done if the needles are strictly up and down. Sometimes they wobble and quiver sideways when machine is running and this is what should be checked for and remedied.

With machine running, use a power eye loupe to check the needle movement. If there is a sideways motion or a double image of the needles moving side to side, don't tattoo until it is corrected. The rubber band tension and a snug fit of the looped end of the needle bar is the way to stop the side wobble and this is done with either tape or plastic grommets. Sometimes a slight voltage reduction will also help. If there is a snug fit at the looped end of the needle bar and there is still a side wobble, move one or more rubber bands in a different position along the top of the needle bar until the right tension is achieved to further stop the side wobble. Never bend the needle bar. Keep checking with machine running always using the eye loupe to make sure the needles are running just up and down. Any side motion has to be avoided. Each needle should be clearly seen with no blurring or double side to side or up and down images.

When using an eye loupe to check for correct needle motion, it is also a good time to check the needle tips for bad points. (See Section on needles.) This should be a habitual thing because this entire procedure has to be performed before each and every tattoo on both the outliner and the shader. If you tattoo with a side wobble, the needles will rip up the skin pretty badly, tearing it and doing damage that will make insertion of the ink difficult, and while it's healing, scabbing and loss of color will result. With experience, this total operation takes only about two minutes and it will save a lot of time and aggravation later when putting color in and when it's healing.

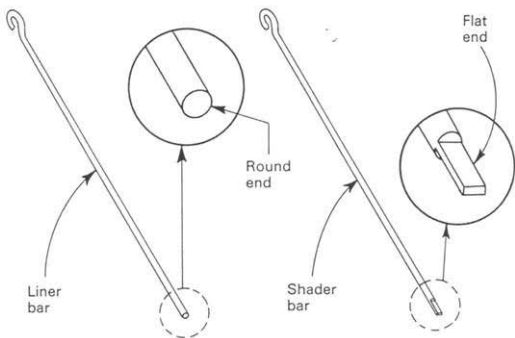


CHAPTER SEVEN About Needles

One of the most important aspects of all the various mechanics in tattooing, would be the tattoo needle. Sterilization is important, the machines are important and designs are important. But, the tattoo needle is the only link between you and the customer and it is there where all of the other factors meet with the skin. Needles actually puncture the skin and for this reason they must be perfect, absolutely flawless, sharp, straight and in perfect condition.

Needles are soldered on bars called needle bars. There are two types of needle bars, liners and shaders. Liner needle bars are round on the end where the needles are soldered. Shader needle bars are flat on the end where the needles are soldered.

NEEDLE BARS



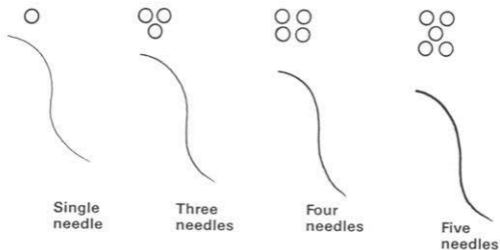
Liners are grouped tightly together to do outlining with. Shaders are grouped flat, next to each other, to do shading. Use the best needles and needle bars money can buy. They are that important. Don't mess around with inexpensive needles or sale items. High quality needles are easier on the customer (pain and health wise) and on you (making the tattoo cleaner and sharper). They are not that much more expensive. As a matter of fact, the best needles and bars in the world are not that much at all. Don't compromise on these items, or you will never be a good tattooist.

Needle making in itself is an exact science. This is the process of actually soldering the needle groups together as a unit and then soldering this unit to the needle bar. As a tattooist, you will no doubt be doing this yourself in the future. The entire process is explained in detail in the next chapter. For now though, do not attempt it because you already have enough to do. The beginning tattooist should purchase needle bars (with the needles already on them) from a reputable dealer in tattooing equipment. There are several reasons for this. First, you will get to know what good ones look like. Needle bars from a supplier are just about always perfect and made by an experienced professional. Study them and get to know all the aspects of the various kinds. Second, it gives you a chance to start building up a collection of needle bars. When the needles are no longer useable, the needle bars still are, and can be used over and over again. With care, they can last for many years.

A tattoo needle's lifespan is very short. If you get three medium tattoos out of one, you are stretching it. Needles cannot be sharpened and when they are used up, solder them off and save the bars. Many professionals use one needle for one tattoo. If it is a big tattoo, it may take two to three needles. This ensures sharp needles all the time. Don't keep using the same needles. Use them once and get rid of them. Be liberal and you will be better off.

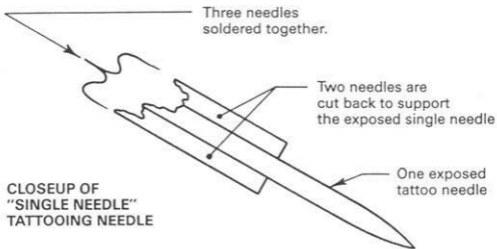
Needle groups used for outlining come in four common sizes. Needle groups are the number of needles on the end of the liner bar. They are one needle groups, three needle groups, four and then five needle groups.

LINE NEEDLE GROUP* (Head-on view of needles)



*Approximate line thickness

One needle groups actually have three needles in them. Two are soldered slightly back and the third needle (the tattooing one) is sticking out just ahead of the other two. The two that are back add stability and guidance to the one which is forward and this group is popularly called "single needle." This is the one that you hear so much about.



It makes a very fine line on the skin. Three needle groups are three needles soldered together and are perfectly flush with each other on the tattooing end. It makes a little thicker line and five needle groups make even a thicker one. All of these groups are soldered on liner bars and are generally used for just outlining a tattoo. The outline of a tattoo gets thicker as the size of the tattoo increases. Single needle for small pieces, the three needle for medium pieces, four needle for bigger pieces, and five needle for larger pieces such as back work. As the size of the tattoo increases, the outline of it (in thickness) also increases proportionally.

The above also holds true for shading needles. These groups are soldered flat on shading bars. One needle is right next to the other, on a flat line, as opposed to liners which are soldered in a circular group. The most common sized shaders are four needle shaders and six needle shaders.

The four needle shader is used for smaller areas being shaded and the six needle shader being used for larger areas. The only exception is the big 14 needle round shader, used for large work. This group holds so many needles that it is made round instead of flat.

SHADER NEEDLE GROUPS* (Head on view of needles)

Four needle group



Six needle group



*Approximate line thickness

The actual needles that get soldered on the bars come in two types. Plain Steel needles and stainless steel needles. Stainless needles are better to use because you won't have to worry about rust or pitting. Many tattooists use different makes of needles, but the industry standard is the #12 sharps needle. This is what you will get from your supplier, already perfectly soldered onto the needle bars. You must make it a habit to constantly check the ends of the needles for perfection. Many things can happen to them. A vital part of your equipment is the eye loupe. They are like a microscope, but for just one eye. A high powered, high quality one is a wise investment and a definite must. They are used so you can always check the end of the needles for flaws. They must be checked right when you first receive them, right after you have sterilized them and while you are tattooing. A needle can get bad at any time. It doesn't take much at all to spoil one.

Tattooing with a bad point results in: The ink not going in properly, excessive pain for the customer, skin damage and ripping, leaving scar tissue and a terrible tattoo. The needles you get from a supplier are usually perfect, but always check them anyway. They could get damaged in shipping, while sterilizing them or just careless handling in setting up the machine. They must be treated with extraordinary care at all times. If not, you will not last long as a tattooist. The causes of needle damage vary and can happen at any time. Rough handling while washing or sterilizing will do it also. They can get damaged while running the points into the bottom of the ink cap. Too tight a fit of the shaders in the tube end will do it also. Be careful and check them often with the eye loupe. Pay attention to the tattooing. If the customer starts flinching or the lines come out wrong, stop and check your needles. Bad needles look like this as seen through the eye loupe.

CLOSE-UP DETAIL OF BAD POINTS



Hooked



Blunted



Pitted
or rusty



Bent

Tubes

The liner and shader tubes are the machined tubes which encase the needle bars. They commonly have knurled grips on them for easier handling control. Each tube is designed specifically for the type of needle bar it is to be used with. For example, a four needle shader is used exclusively with a four needle shader tube. The exception is with the three needle square tip liner tube. It is also used with the single needle liner. It is important to remember that suppliers make their needle bars to fit their own tubes. So be sure to order your machines, tubes and needle bars all from the same supplier to keep things consistent and fitting together right.

A Word About Liner Tubes

There are two types of liner tubes. One with a round tip and the other with a square tip. Which one you choose to work with is a personal preference, but each one has an advantage over the other. Let's take the round tip tube first . . . You will not have many problems with ink splatter, and if you do, usually a rubber band adjustment will take care of it. If you make a sharp corner while tattooing, the needle could move over, causing a wider or crooked line. Also, if you have too much needle hanging out the end of the tip, it will tend to hang up in the skin. To correct this, move the tube down.

Now let's go to the square tip tube which is the true professional's tube. With a square tip tube, the needles will never move no matter how sharp or fast you go around a corner, the line will always stay the same width. Everything has to be in perfect alignment on a square tip tube with the tip slightly slanted up so the needles hug down in the groove. There cannot be any excess solder on the needles or you will have a splatter problem, this also holds true if the tip is worn badly. If you continue to use a worn out tip, you will get short use from a needle bar, the tip will not feed ink correctly to the skin and the bottom needle will wear flat and sharp, causing it to cut. If the tip feeds out too much ink, a rubber band adjustment is in order and also, you might try using a bit less power. You should always have a small amount of needle protruding from a square tip when not running, and a short or long stroke is a personal preference. It's up to you if you want to ride the tip of the tube on the skin or work off the points of the needles. Whichever is most comfortable for you.



CHAPTER EIGHT

Needle Making

Needle making is an art and science in itself. It is not just some process that is performed, but an acquired skill to perfect. You want to make your own needles to be strong, but to achieve a high level of skill in this field, the technique has to be practiced over and over again through the course of many months. Just like anything in life, the more you do something, the better at it you become. This is very true with needle making. It can become really frustrating at first and it seems you will never get it right. This is the time not to quit, but to just keep trying. Stick at it, and eventually you will be making needle bars as good as, or better than the ones you get from your supplier.

The following equipment is needed for making needle bars:

Solder Gun: A good one with a pistol grip for easy maneuvering, and developing a lot of heat quickly.

Solder Flux and Solder: This must be stainless steel flux and solder for soldering stainless steel needles and bars. Absolutely nothing else.

Tinning Fluid: For tinning the tip of the solder gun so you don't burn the tip through from high heat.

Stainless Steel Shader and Liner Bars: To accept needle groups.

Needles: Stainless Steel Sharps #12 needles.

Eye Loupe: The highest power of best quality. A 15 or 20 power loupe is recommended.

Needle Jigs: A great time saving device. These are manufactured (at the time of this writing) by only Spaulding & Rogers Mfg., Inc.

Clippers: Small pliers for wire cutting.

File: Small file assortment (jewelers)

Stones: Sharpening stone, around 1" x 1/4" x 3".

Plastic Aligner: Make yourself. 1 square inch x 1/4 inch.

This equipment is not stored out in the tattoo shop but in the back room or at home. Keep it somewhere quiet where you can concentrate on what you are doing. Once you *get going, you will most likely tattoo all week long, and on Sundays or free nights, make your needles for the upcoming week. You are going to be making a lot of them, about a week's supply or more at one time.*

Before even starting, following the suggestions of the previous chapter on needles, you should have a good supply of needle bars (both liners and shaders) already on hand.

The pre-manufactured needle bars should be examined very carefully. Study them to see *how they sit on bars, how the needles are soldered, which side is soldered and all the small details like arrangement of needles and order of grouping, etc.* Before you begin, read this entire chapter several times and try to perform all of the steps in your head as you go along so you have some idea of what you are trying to do.

The first step is to sit down and organize your equipment in front of you. Use a good strong light and work on a flat and sturdy surface. Don't rush through anything since these needle bars are basically your livelihood and entire bread and butter.

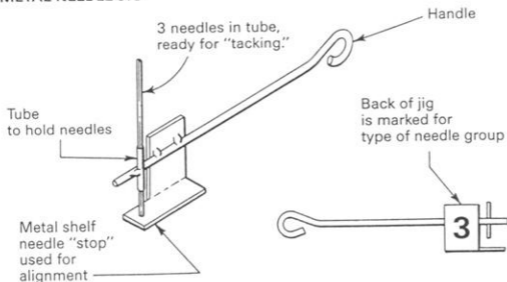
At this point, it is assumed that the tattooist has an intimate knowledge of using soldering equipment. This is not a chapter on how to solder, so a book on this subject should be read, and practice should be done on scraps of stainless steel or old needle bars to acquaint yourself with this process. When it is determined that you can handle your equipment with confidence, then and only then commence with practicing needle making.

Begin by soldering off the old needle groups from their respective bars. Do this over a garbage pail. Solder them off and let them drop into the pail never to be used again. Clean off all residue from the bars and set them aside. Line them all up, liners on one end of the table and shaders on the other end.

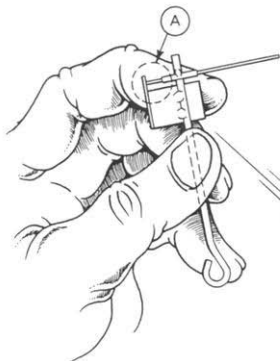
The next preliminary step is to choose your needles. In front of you is a small package containing 1000 stainless steel #12 sharps needles. They will not all be perfect. Up to twenty percent or more will be unuseable as tattooing needles, but can be used as riders when making single needles. Remove a dozen needles from the package and lay them on a smooth surface. Extreme care should be used in making bars. These are very delicate, and caution should be used to make sure they stay perfect through the entire process. Go back to the last chapter and memorize the drawings on what bad needles look like when under the eye loupe. Inspect all the needles you have just pulled out of the package for such bad ones. Use a strong light, a good eye loupe and take your time. Keep the good needles separate and on the bad needles, carefully file off the points with the file. Save these because they are going to be used when making single needle liner bars.

The first needle bar we will discuss making will be the three needle liner. You will need a needle jig for these needles. These jigs are the small metal ones with a little handle on them. They have a small shelf on the end with a hollow tube soldered on at right angles to the handle.

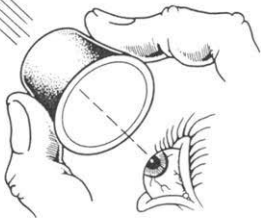
METAL NEEDLE JIG



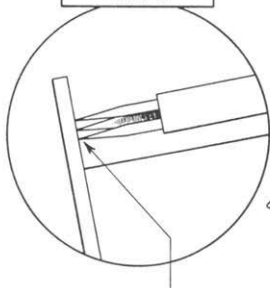
CHECKING AND TACKING NEEDLE GROUP



After the needles are in place, hold jig in this manner and check with the eye loupe to make sure all needle tips are flush with the "stop" on the jig.

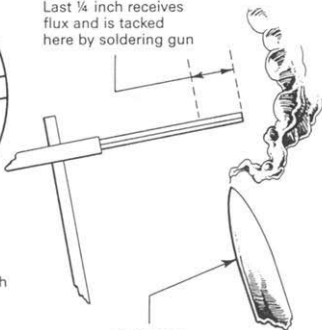


Detail "A"



View thru the eye loupe. All needle tips must be flush on jig stop before tacking.

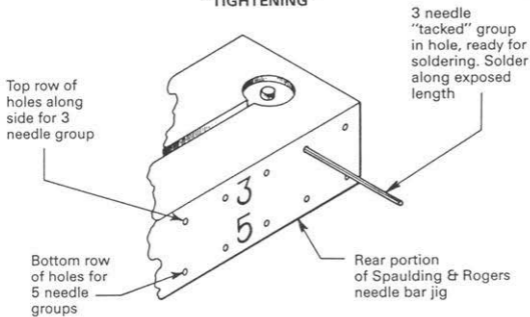
Last $\frac{1}{4}$ inch receives flux and is tacked here by soldering gun



Soldering gun tip

Take hold of the handle with the shelf on the bottom and the hollow tube open at the top. Insert three good needles carefully in the hollow tube. The points are down touching the shelf and the blunt ends are facing up. Make sure the points are all touching the shelf and are all even. "Tack" the blunt ends with a little piece of solder just to hold them together. Let off on soldering gun trigger when soldering needles as it will magnetize and pull needle from jig, making an uneven set of needles. The key here is to use just a little bit of solder, this will keep the needles in alignment, then remove them from the jig. After this step, the needles have to be "tightened" as a group. You will need a Spaulding needle bar jig for this, and the next steps. This is a great device, taking all the guess work out and it is also just about indestructible. The one used here will be the jig for three and five needle liners. There are ten holes on the side of this jig. Three needle for the top and fives on the bottom. You will be using the holes made for three needle groups. Insert the "tacked" three needle group carefully into one of the holes. This will tighten them up. This will go in about $\frac{1}{4}$ inch, leaving the rest of the needles hanging out.

NEEDLE GROUP "TIGHTENING"



Solder these needles together with just enough solder to do the job and no more. No blobs or inconsistent messes here, just a good clean solder up and down the needle shafts. Carefully pull them out. You should have a nice tight three needle group soldered all the way from one end to about $\frac{1}{4}$ inch from the sharp needle end. They will lay in a triangle, two needles on the bottom and one between them and on top of them. No matter which way they are turned, you can't help but get this.

This is now a finished three needle group. Now to get this group on the liner bar to form a three needle liner bar. Take the needle bar jig and put on the three needle head. Don't over tighten it but just tighten it up snug.

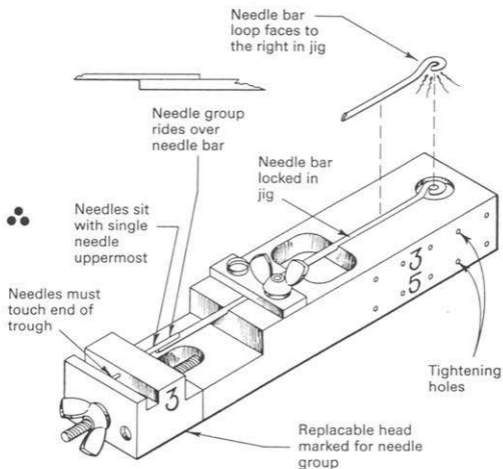
3 NEEDLE GROUP



Now, let's deviate for a minute and review a few basic fundamentals. When holding a tattoo machine already set-up, turn it so it is facing you. Not in profile, but in a front view with coils on the right and the frame arm on the left. You will notice several things pertinent to needle making. First, that the open end of the needle bar (the loop that fits on the tape on the armature bar), this loop, the open end, always points to the left. This is a standard and never changes.

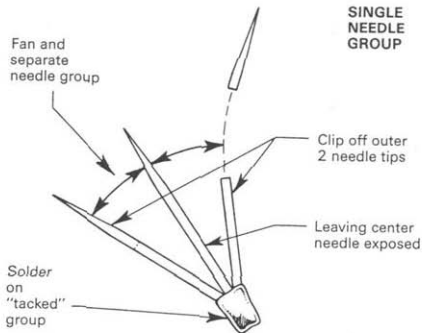
Now, look down at the opening in an open sanitary tube. Observe that the actual bar is towards you and the needle group behind it. In other words, the needle group is in back and the needle bar is in front. This is also a standard position and never changes. Get this down pat in your head. This position makes for a smooth motion and smooth tattooing. No matter what kind of needle bar is being made, this set-up never changes. Remember that. (Check Tube Drawing in Chapter 6.)

Back to the needle making. You have a nice tight three needle group and are ready to solder it to the bar. If you recall the last chapter, always use a round needle bar for liners. This is now what is needed, a round stainless steel liner bar. With the three needle head now on the needle bar jig, insert the needle group in the small hole in the jig head. The top needle in the triangle should be the uppermost or on the top of the rest, and the group points should be just touching the back of the jig trough located in the head. Place in a round liner bar. On the pin, located in the rear of the jig, fits the liner bar loop. The open end of the loop must always face to the right. The bar rides under the needle group, or the needle group rides on top of the bar. Clamp down the swivel bar and secure snugly with the wing nut. Solder on the needle group to the liner bar. Carefully pull out and you have a three needle liner bar. Check the points for perfection. Store carefully for sterilization and use.



SPAULDING & ROGERS NEEDLE BAR JIG

Five needle liners, with one exception, are made exactly the same way. Obviously, you will use a five needle jig when tacking them and the five needle head on the needle bar jig and will use the #5 holes for tightening, but the basic process is the same. The exception is the way the five needle group is placed together. The odd needle is in the center of the group. Put them together with your fingers and work them into proper position in the five needle jig before tacking. 14 needle round shaders are done as shaders on shader bars. Use the appropriate jigs. Single needle liner bars are done quite similar as three needle liner bars with a few differences. Only one good needle and two filed bad ones are used. The two bad ones act as a support for the otherwise good but flimsy single needle. When placed in the needle jig, line them up on the shelf just like the regular three needle and tack it. When you remove them, separate the needles slightly in your hand and with a pair of cutters, clip off about $\frac{1}{4}$ inch of needle on each end of the bad ones, which leaves the good point sticking out about $\frac{1}{4}$ inch from the other two.

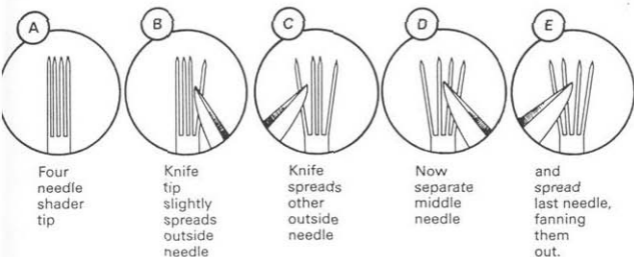


Stick them in the three needle hole in the needle bar jig for tightening just like a three needle group. When soldering on a liner bar, remember that the top needle in the needle group triangle is the good one, and as usual, the bar rides underneath.

Let's move on to shaders. It may sound strange, but one of the most useful tools for constructing shader needle groups is a rectangular hone. Measuring about 1 x 3 x 1/4 inches, they are inexpensive and can be purchased from your tattoo supplier who also has a shader needle kit available. A leveller can be made from plastic, plexiglass or glass and measure about one square inch. These two items are used in conjunction with each other. In making the six needle shader, first select six good needles and double check them with an eye loupe. Lay them flat on the stone bunched tightly together, but flat, one next to the other. The sharp points should extend about 1/4 inch off the end of the stone. While still holding tight the needles on the stone with the thumb, take the leveller and very carefully push the needles in slightly. Make sure you touch all six. This ensures that all six are in alignment with each other. This is important so none of the needles are sticking out more than the rest. While still maintaining pressure with thumb so the group is tight, flat next to each other, and level and in alignment, now proceed to tack the end. The stone works great because it will absorb flux, won't make a mess and can be used repeatedly. When fully absorbed with flux, just wrap it up in a few paper towels and use a new stone. The towels will eventually draw out the flux and in about a month you can use the stone over again. Have a supply of stones handy so that you can have one available at all times. Tightening isn't really necessary with shaders if pressure is maintained while tacking the groups. It may take some time to do this efficiently, but with practice you can get it down pat.

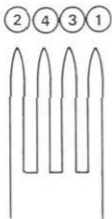
SHADER TIP MOTION

Spreading the shader needle group with a knife edge to remove side wobble

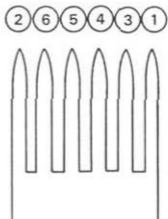


Note: the needles fanned on this drawing are exagerated to show the method. The actual fanning should be very slight.

ORDER OF STEPS



4 needle



6 needle

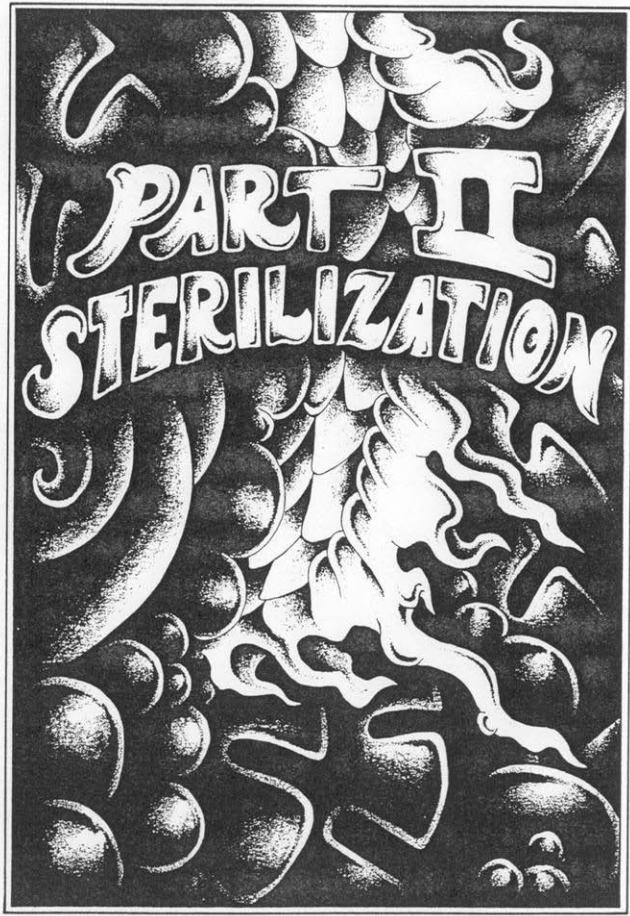
When soldering the shader groups on the shader bars, you can use the same needle bar jig, just switch bar heads for shader groups. The rules are the same, with the loop of the bar facing to the right and the bar riding under the needle group. Remember to use the flat needle bars for shaders.

The final touch on the shaders will be the spreading of the needles. This process will also apply to four needle flat shaders. It is a known fact that spread or forked shader needles (whichever you prefer to call them) will put ink in the skin faster and better than a set of needles that are not spread. Also, spreading of the needles takes up the slack in the tube tip and does away with any side motion of the needles which could cause splattering or possibly cutting of the skin. When spreading the needles with a thin bladed knife, be very careful not to snap the outside needle. If you do, you can always trim the needle off, likewise the other side and use it for a four needle shader. Do not overspread the needles or they will bind inside the tube tip and the results will be that there is such a drag of two metals rubbing together, your machine will not function properly. Refer to needle spreading diagrams.

Take your time when practicing. Check all needles with an eye loupe in all phases of needle making. *Extreme care should be used when handling needles in needle making* or very few indeed will make it to the sterilization. With practice, your needles will be something to be proud of, perfect in uniformity and professional in their usage as a tattoo instrument.



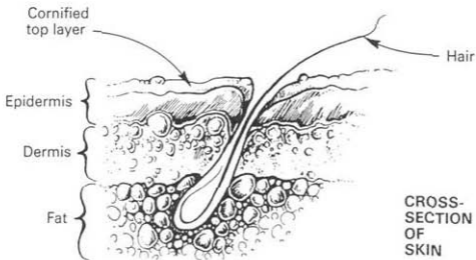
PART II
STERILIZATION



CHAPTER NINE

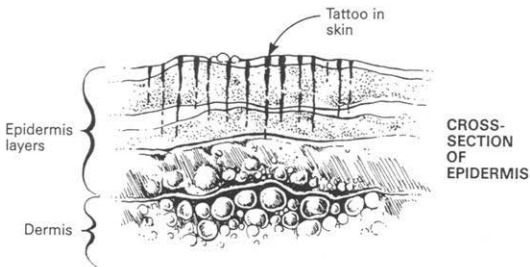
Skin

Skin is the outer covering of the body, it consists of an outer layer called epidermis and an inner layer called the dermis. Beneath that is fatty tissue. The epidermis protects the body from injury and invasion of parasites. Skin is waterproof and helps contain water in the body. Skin also excretes poisons (sweat) and also acts as a sense organ. The point here is that skin is not some board to be etched on but an actual working, organism to be dealt with carefully, so extra sensitivity is needed.



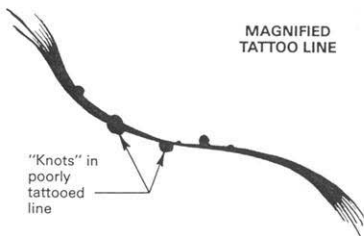
Up to a point, all skin shares a common bond and certain characteristics. Beyond that, the variation is infinite. You should be aware of this because eventually you will *come in contact with it all*. *Some people's skin is quite flaky while others are naturally oily*. Some skin seems to reject ink through an entire tattoo, and some accepts it quite readily. Certain people have extremely sensitive skin and others just the opposite, totally impervious to abrasion, as it seems. You should be aware of the type of skin that you are dealing with. For example, you shouldn't grab everyone the same way, some bruise more easily. Be open to individual needs. No matter what skin type a person has, it can all be somewhat equalized in texture by keeping it moist. Always keep the skin lubricated with vaseline or bacitracin ointment while working on it.

A good tattoo does not have to go extremely deep to stay permanent, but can survive quite satisfactorily in just the epidermis layers of the skin.



Stretching Skin

One of the major bonuses that you have working with skin is in its elasticity. It stretches a lot. In order to perform any kind of precise work and to get the ink in correctly, the skin must be taut. It's important that the skin be stretched tightly like a drum so the needles don't bounce, or get hung up in the skin. If the skin isn't very tight, your lines will go from too strong to too weak. If it is too strong, you have gone way too deep and a big fat line with "knots" in it may occur and scar tissue will usually result.

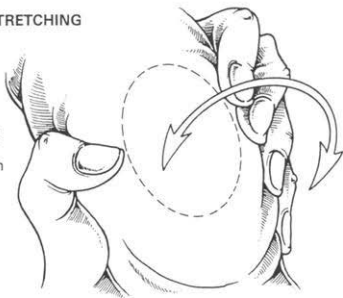


If the skin isn't stretched tight, it will be difficult to get the color to go in the skin. The needles will bounce off the skin instead of penetrating it. It may look like the ink is getting in all right, but it could be an illusion and be getting in on only the very top layer of epidermis. Keep the area you have just finished clean so you can see how solid the color is. Use a magnifying glass, if necessary, and stretch the skin while you are examining it.

If you are working on an arm or a leg, grasp the back of it. Squeeze firmly, but not so tight as to cramp your hand or bruise the more sensitive person.

SKIN STRETCHING

Drawing
the skin
taut with
fingers



If you are working on a back, chest, breast or bottom or somewhere where you can't grab the back of it to stretch, you will have to stretch it with your free hand. You do this by cradling the tattoo area between the "V" formed between the thumb and the forefinger. Make contact with as much finger skin on the area as possible to make more "drag" to hold the skin better.



How to
stretch
skin on
broader
areas

If the skin is slippery, put a clean paper towel down first, it will help keep your hand from slipping. Plus, you can always use the paper towel in your free hand for wiping, if necessary.

If a stencil is put on while the skin is stretched, it will look different when it isn't stretched. So, check the stencil after it is on while the customer is standing in a natural position to make sure it looks right before you start. Even if you have to make a new stencil print, do it until it's right. If the stencil print isn't correct, the tattoo isn't going to look right. Paper stencils are much easier to use for large back designs than are acetate stencils. Also, the print from the hectograph ink used on the paper stencil will not smear as does stencil powder used on the acetate stencil.

To put a stencil on the back, have the customer stand straight up and fully relaxed. After the stencil is on, you can put them in any position you like, to do the actual tattooing.

If it's a large tattoo, you may want to enlist the help of a friend to help stretch the skin. If so, have them wash up good with soap and hot water. Then spray their hands good with rubbing alcohol before starting. Make sure they are wearing clean clothes, and a pair of latex gloves also. Keep it "professional."

Give your helper a paper towel. Have him sit across the bench from you and hold onto the other side of your customer's skin. To do this, have him spread out the fingers on both hands to cover as wide an area as possible, about six inches from that side of the tattoo. Have him toward you from below the tattoo, giving your machine hand plenty of room to maneuver. Most of the time your helpers will tire out easily in this position. Another "hold" is to have him sort of lean on the customer and use his entire forearm to hold the skin while the arm is bent at a 90 degree angle at the elbow.

If no friends are to be found, you can stretch a large area by using the outside of your left palm, ring and little finger to push upwards. Use your little finger and the outside of your right palm to pull down as you tattoo with the same hand. This is easier than it sounds and it gets easier with practice.

These elaborate stretching procedures are mainly for the outline, so you don't smear any of the lines on the stencil before it has been all outlined. Once the outline is on, you can easily stretch small areas of skin as you proceed through the rest of the operation, using your left hand, as illustrated, to do the stretching.

A short word is in order here about some of the first skin you will come in contact with. You will need some skin to practice on. You are going to need some skin of some kind to learn on and get the basic feel of things. In the beginning, start on yourself. If you are right handed, you can cover most of your left arm and both legs yourself. Why not? You want to tattoo don't you? Let's not get squeamish. It's better to make mistakes on yourself first than on other people. If you plan to make a career in tattooing, you'll find it difficult to market a product which you yourself don't endorse. Once you've covered yourself with fine tattoos, it's time to start looking for friends. You can always find people to work on for free, who aren't that particular at first. Usually a deal can be made where if you tattoo them for free, they will advertise around where they got it. It's a good form of practice for you. They get a good free tattoo, you get to work on different people, and you also get the benefit of some free advertising.

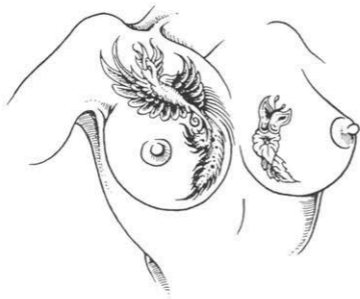
Dark Skin

There is no problem tattooing a dark skinned person. Of course, the tattoo will not stand out as much as it does on white skin, especially if the person has real black skin. Contrary to belief, white ink is not the solution to tattooing black skin. Red and black tattoo ink will show up the best. Forget about using white, it doesn't even look good under black skin. On Latins, Mexican or Oriental people, all tattoo colors will show up well. Some dark skinned people will hesitate in getting tattooed because they think it won't show well on their skin. This is when you should do a bit of public relations work and assure them that the tattoo will look just great. Having a couple of photos of previous customers with dark skin showing their new tattoo will help convince the reluctant prospect. Another thing you should keep in mind is try to have a real dark skinned person get the tattoo on the inside of his forearm, they are usually a bit lighter in this area and the tattoo will stand out more vividly. Don't forget if it is a profile tattoo, have it facing outboard on the inside of the arm and inboard if it is on the outside of the arm.

Tattoo Placement

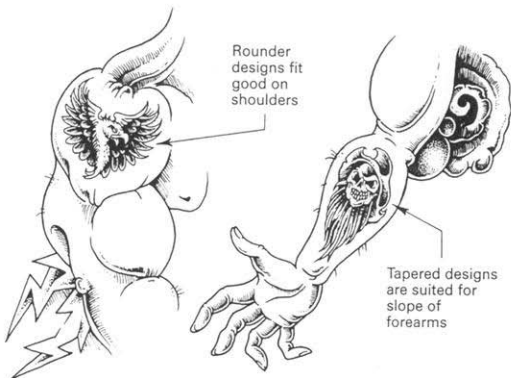
Some areas of the body are easier to tattoo than others. On a male, the easiest places are the forearm, upper arms and legs. The most popular and easiest areas for the female are on the shoulder blades, breasts and hips. The fleshy portion of the upper breast (above the nipple) is the easiest spot for a woman to get a tattoo. Women seem to take a tattoo a lot easier than a man. This is due to the fact that they have a naturally higher threshold of pain and also an extra layer of fat in their skin than men do.

Some thought should go behind the actual placement of tattoos, such as the size and shape of the design as opposed to the size and shape of the skin area being tattooed. A large flying bird spanning left to right would look a little awkward on a skinny arm that hangs basically up and down. Try to use the lines of the tattoo to enhance the curves of the body part, this will be making more of an artistic statement than just slamming any tattoo in any position.



Bird and butterfly tattoos swirling around to conform to the natural curves of a breast

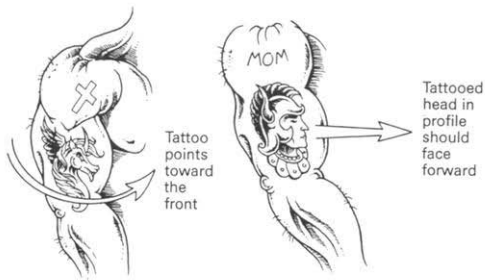
Use a design that is compatible in size and shape to the area it's going to be on. For example, on the forearm, use a long design that goes up and down the arm from elbow to wrist, also taper it so it conforms to the bulge in the upper forearm and tapers down as it comes down to the wrist area. Small, rounder shapes work well on shoulders. Large, round ones on the chest or back. Oblong designs are great for biceps and legs.



Small tattoos don't usually look that good on large areas and seem to get lost. Large tattoos squeezed into small areas are confusing and usually the entire picture isn't visible from one angle.

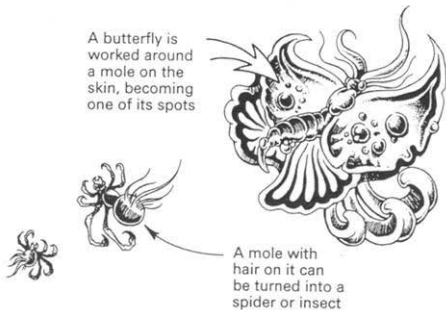
Sometimes what looks the best isn't necessarily what the customer wants. It isn't your job to argue with them, after all, they're always right, but it does help to make a few suggestions and to state how you view things. People will usually consider what you have to say.

The direction a tattoo faces also should be considered. Although the customer always has the final say, a general rule to follow is that a tattoo that is in profile (or partial view turned) should always face to the front of the person. That is, don't have them pointing backwards to the rear. Some examples are shown below.



Depending on where the tattoo is located, (some on the left side, some on the right) and what the tattoo looks like, you may need two stencils of the same design. On acetate, just engrave both sides, having both a left and right image. Before randomly applying a stencil, give it a couple of turns and try different directions to see which way the design would look its best. Try to be a little artistic and spend a little time shuffling the stencil around.

Skin has wrinkles, scars, stretch marks, lumps, cysts and all kinds of surprises in store for you. Stay away from all the problem areas and work around them if you can. Don't tattoo moles. Avoid working on heavy scar tissue because it doesn't heal well. The same for pimples and hickees. Try to incorporate these blemishes into the design whenever possible. You can actually get quite creative here if you wish. For example, in a butterfly or leopard, a mole can sometimes be hidden as one of the spots.



Parts such as fingers, hands, faces, heads, necks and feet are poor places for a tattoo. Besides being culturally unacceptable, these places are most prone to infection anyway and should be avoided. Even if a customer begs you, make up your ethics beforehand and don't get talked into doing these things.

Don't tattoo below the wrist, on the hands or fingers. If you wonder where to stop, don't go within $\frac{1}{2}$ inch of the first wrinkle you make when you bend your wrist, on the top and bottom of the wrist. Tattooing over the wrist bone is fairly tender. If possible, pull the skin to one side, off the bone. Your needles shouldn't be set so deep that they go clear to the bone. Your nerves are wrapped around the bone and it can get fairly painful for your customer before you are through.

Don't tattoo below the ankle bone, or on it if you can get out of it. The ankle is also a lively spot. For some people, it is next to impossible to hold still for a tattoo in this area. A better place is just above and slightly ahead of the ankle bone, on the outside where it's more meaty. If someone wants it on their ankle, on the inside, the area slightly behind the large bone is a good spot. Again, don't go near the foot. Stay on the side of the first wrinkle when you bend your foot. The reason you don't want to tattoo below the wrist or on the hands is because the skin is too loose and stretches easily. It gets put in grease, dirt, garbage, dishwater, pockets and everything else you can think of. As a result, it leaves a tattoo in this area very susceptible to infection, which you don't want anywhere near your work. You don't need that kind of headache.

Don't tattoo on or near the feet because they are near the ground and can get infected more easily. Also, it seems that tattoos which are lower to the ground take longer to heal and give customers more grief during the healing period.

Don't tattoo above the collarbone, or on the neck or face. Besides being a poor choice of locations, it is very painful there.

In areas where the skin stretches and moves, the scabs are easily torn off before they are ready. If this happens, the area where it was still attached will bleed. In doing so, it will bleed the color right back out. That particular area will revert back to skin color. Every minute the area is in its healing process, it is susceptible to problems. The shorter the healing time, the better.

Try to guide women away from getting tattoos on their arms because many employers won't hire women who have visible tattoos, but once they are aware of the situation, if they still want one, go ahead and do it.

Try to guide people away from getting their lover's name on them. It's sure to change with time. You'll find yourself covering a lot of them up anyway, ones that other people did. If you must tattoo names on, do them in red or light blue so they can be easily covered up in the future.

Skin is an important matter in tattooing. It is your canvas for art work. Please pay attention to all that has been said, and your tattoos will look pretty and heal with no problem on any type of skin.

CHAPTER TEN

Sterilization

In this Age of many diseases and viruses, many that kill and some incurable, proper sterilization is a serious concern. It also ought to be a priority with yourself that under no circumstances do you ever use non-sterile equipment. All needles, tubes, bars and inks should be sterilized.

To sterilize equipment before using, first put new needle bars and tubes in an ultrasonic cleaner. A chemical cleaner can be used in the ultrasonic cleaner. This helps get all the flux off of needles and works wonders in getting ink out of tubes. A tube can be scrubbed by hand for five minutes, but when they're put in an ultrasonic, the ink will just boil right out of it. You may be able to get by without an ultrasonic in the beginning, but if you're planning on doing a lot of tattoos, you're going to want one before too long. Purchase one with a removable basket. They also impress the Health Department and are well worth the money spent.

When placing equipment in the ultrasonic cleaner, be careful not to damage a tip on *one of the needles or it will be ruined*. Place needles in basket gently, being careful to point all the needles in the same direction. Sometimes the ultrasonic will actually dull and hook the needles during the cleaning process. To remedy this, lay a pencil under the back two legs of the ultrasonic to tip one end up higher than the other. Point the needles toward the high end and you won't have any problems.

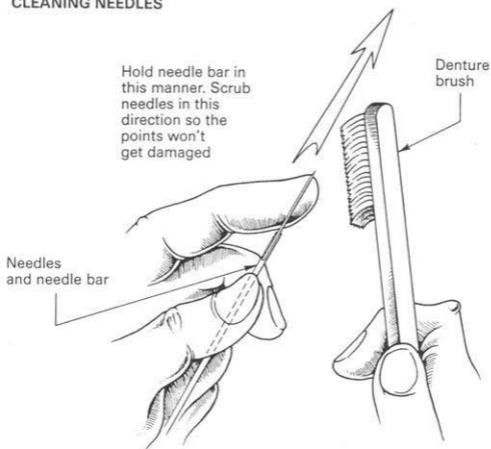
Leave the equipment in the ultrasonic for about a half an hour. When they're removed, it's easy to brush off any remaining ink or other debris with a denture brush. Use the shorter bristles to clean the outside of the tube and the longer bristles to get up inside the tube and tube tip. The short bristles work well to clean needles.

To clean a tube, brush it good, inside and out, rinsing it out under the faucet while scrubbing.

Your ultrasonic ripple tank, next to your tattoo machine, is your best friend. It will do a more thorough job in less time than what you could do by hand. Tattoo inks are stubborn to remove and occasionally, even following an ultrasonic bath, you'll find traces of pigment on a tube or needle.

To clean needles that are attached to the end of the needle bar, sprinkle some soap powder of your choice on stained areas, hold a denture brush in your right hand and the needle bar in your left hand, with tips of the needles resting against your index fingers. Always scrub needles in one direction only, in the direction of the points. Drag the end of the needle bar and the needles across the brush backwards so you don't snag and ruin one of the needle points. Start the motion above the brush, coming down and across the brush.

CLEANING NEEDLES



If you happen to catch a needle by mistake, set it aside and look at the points through an eye loupe to make sure a tip hasn't been barbed. It's easy to do. If it's barbed, discard it and put a new set of needles on the bar. As you scrub the needle, spin the needle bar in your hand so you can scrub both sides of the needle and bar. Learn this procedure well or you'll end up ruining more needles by scrubbing them than you will by tattooing.

If you have an ultrasonic cleaner, the stuff will come off easily. Rinse the piece well under running water and make sure to get any soap or liquid cleanser off. Injecting liquid cleanser residue into a customer's skin along with the ink is sure to cause complications that you don't want to even think about.

After tubes and needle bars have been scrubbed and rinsed well, it's time to sterilize them because *ultrasonics do not sterilize*, they just vibrate hardened ink and crustations off of the parts. Dip them in Benz-all solution. Then carefully line them up in a dry heat sterilizer and turn it on for fifty minutes. At the end of this time, remove them and put in stainless steel containers full of Benz-all. This keeps the needles from rusting and keeps tubes and needles sterile until ready for use. Sterilizer tubing and bags are also available from your supplier.

If you don't have a sterilizer yet, get one as soon as you can. A good versatile sterilizer is an autoclave. Some have an additional door on the same unit as it doubles as a dry heat sterilizer (perfect for stencil powder). Since these are accompanied with instructions for use, there is no point in giving that information here. If you don't want to invest in one right away, a pressure cooker will do the same thing. A thirty minute run at 250° Fahrenheit will make it safe.

Water boilers don't destroy virus and are, therefore, unreliable.

Ethylene Oxide sterilizers are excellent and very potent, but in the hands of a careless operator, they can be deadly. It's not the route to go, unless you're a very cautious type and run a tight ship. In the meantime, you can sterilize equipment by boiling it for one hour in a clean pan. Do not put items directly on bottom of pan. Store tubes and needle bars in Benz-all solution using either stainless steel or glass containers (with lids, the kind you find in a doctor's office). Store needle bars flat so tips aren't damaged. Some ink caps can be sterilized and some melt. Make sure you get the kind that can be sterilized and then store them in Benz-all. This keeps them sterile until they're needed.

Maintain adequate lighting in your studio, especially in the booth. In the immediate work area, keep a lamp on twenty-four hours a day. Germs don't like light.

During working hours, keep hands immaculate, be shaved (unless you wear a beard) and well groomed. Appearances make a difference.

If your booth is painted, use white or a light colored enamel paint.

Wherever possible, especially in the booth, avoid the use of rugs.

If at all possible, provide some type of ventilation, air conditioning or otherwise. Germs like the places that are stagnant. Mankind has not yet invented a method of sterilization as effective as sunshine and fresh air.

Except when pouring ink, keep bottles tightly capped at all times.

Skin cannot be sterilized. The next best thing is to cover the area to be worked with Iodine or Betadine before beginning.

Fill a spray bottle with water and add a teaspoon of tincture of green soap. While working, use this solution to wipe off excess ink.

After each day's work, clean up around the bench and mop the floor.

Except in rare instances where you require assistance in stretching the skin taut, make it a firm rule that nobody except yourself and the customer you are working on are allowed inside the booth.

Everything that comes in contact with the skin can be divided into two categories. Disposable and reuseable. Whatever is disposable must be discarded at the completion of each tattoo, and whatever is reusable must be cleaned and sterilized.

Discard the caps and ink remaining in them, tongue blades, vaseline, used paper towels, etc., after each customer.

After each tattoo, remove tube and needle bar and immerse in a shallow tray (marked "Used") of water to which some Lysol has been added. Place needle bars inside tubes, don't interchange tubes and needle bars - if you do, you're courting trouble. At the end of the shift, remove and rinse, one set at a time, and place in ultrasonic tank for final cleaning. Remove and rinse each set individually under running water and then wrap each set individually in autoclave paper, place in autoclave or dri-clave for the required time and they're ready for the next day. Leave

them wrapped and only remove the paper from one set at a time when you use them. It is a good idea to use color coded tags on each item put into the autoclave. Tags will change color when the sterilization is complete.

Pigments that are self-mixed should be cooked and are safer and enter the skin more readily. Sometimes baby bottle or pyrex coffee urns are employed for this. Another good way of doing this is to get a Cook and Stir Blender. Get a quantity of Polyethylene jars, one for each color, about a quart size with about a 1½ inch neck. It's a messy job, so prepare to do a large batch at a time. Mix a quantity of pigment per instructions on package in a glass vessel and pour it into blender. Turn it on and set heat at desired temperature and speed of your choosing. It can be cooked one-half an hour or all day. Add liquid occasionally to prevent going dry. Cooking the same batch for a while on three successive days is a good idea. Let cool slightly and pour into Polyethylene containers. Seal cap tightly when batch cools to room temperature. Now you have enough of that color to last several years. Clean the blender and canister and it will be ready for the next color. Store containers on a shelf in a well lighted area. A word of caution here, several days before using, wash containers well with Lysol and hot water, put some alcohol on them and shake well, then drain off alcohol before using.

Already mixed store bought colors are the best bet for the starting tattooist. They are mixed perfectly and are a lot less messy to deal with. They can be sterilized in containers that don't melt.

Never use ink direct from a sterile bottle full, pour out what you need into a sterilized ink cap.

Thought should be given to protecting your own health as well as that of the customer. It would be ironic to make such an effort to assure the safety of your customer and then you yourself pick up a contagious disease from contact with them. For the benefit of both parties, wear latex gloves. Gloves are generally latex surgical gloves and are available from your tattoo supply house. They are form fitting, comfortable to wear and at the end of your shift, you won't have to spend twenty minutes trying to brush ink from around your fingernails. Gloves may be awkward the first few times they are worn but after that, you'll wonder why you haven't always worn them.

Since we have entered into an age of pestilence, local health boards will try to use tattooists as a scapegoat and consider their services dispensable. If you use common sense and follow the rules in this chapter, you can be among the survivors and the results will be very rewarding. In the beginning, you may have to tighten your belt to furnish a shop in this style, but when push comes to shove, you'll have the support of your customers and the respect of the media and people in high places on your side.



CHAPTER ELEVEN

Sterile Techniques

There is no excuse for a dirty operation and there is no excuse for infection, no matter whose fault it is. It's your job to keep your operation sterile and your job to educate the customer on how to keep a tattoo clean and free from problems while it is healing.

Even this isn't enough. Sterile procedures have to be followed from A to Z. Get and stay sterile all through the tattoo. Take great pains to be sure that your equipment, work area and procedures are sterile at all times.

Do everything you can think of to get and stay clean as you possibly can.

Hands should be washed in soap and water up to the elbows. Use a brush to clean fingernails, dry them with a clean paper towel, spray hands with rubbing alcohol and dry with another paper towel. Next, rub a light coat of carbolated vaseline into the hands and fingers. This light coat of medicated vaseline protects the skin from drying and cracking from continual use of green soap and rubbing alcohol. This coating also keeps ink from getting into pores. After you do this, clean-up afterwards is quick and easy with soap and warm water.

Before beginning a tattoo, take everything off the tattoo table and spray it down with isopropyl (rubbing alcohol). Clean everything with alcohol before putting it back on the table. Start with your hands first. Vinyl gloves help and should be used. Don't neglect these steps. You've got to keep a clean shop. Mop the floor every morning with a good disinfectant soap solution before you begin.

Then, "prep" the customer's skin for the tattoo. Clean the surrounding area carefully with rubbing alcohol, using first one paper towel and then another one. Then spray the area with green soap, (three parts water to one part green soap) and work up a lather. Take a new sterile disposable razor and shave the area to be tattooed so the stencil transfer will stick.

Clean off the area a second time, getting off all the hair, etc. Then spray and rub green soap into the skin with your hand for a couple of minutes to get the skin ready for the transfer. When skin is tacky, it's time to put on the transfer.

Once the sterile field is established, don't touch anything outside that field without sterilizing the hands again. If anything is dropped, leave it and get another, unless it's a tattoo machine. If this happens, you have to start all over. First remove the contaminated tube and needle bar. Then get a new sterile tube and needle bar before continuing.

If the light burns out and you have to stop and change it, wash up again and spray your hands with alcohol. If you stop for a break, wash up again and spray with alcohol. If someone gets sick on you, wash up and spray with alcohol before continuing. Any time you touch anything other than what is in the sterile field, wash up and spray with alcohol.

Wear clean clothes when you tattoo. It doesn't do you a lot of good to get sterile if you've been rolling around on the ground working on your car.

Have a place for everything and keep everything in its place. This will help you build up speed and will help you develop good habits to keep your operation sterile.

Put things where they belong, use them faithfully as instructed and replace supplies when they get low. Don't wait until you run out and try to "make due" without them. Don't cheat even a little bit when it comes to being sterile.

If you are just starting out you won't have a reputation yet, which is good in a way. At least you won't have a *bad* reputation to overcome. Keep it that way! If you are sincere and do the best you can to learn and practice the information here, you can quickly learn how to apply a good tattoo. Practice makes perfect, but you have to practice the right way in order to improve. It doesn't do any good to keep on doing it the same old way, if you aren't getting the right results. Stay aware of what you are doing at all times. Experience only helps up to a point. Just because a person has been tattooing for twenty-five years doesn't mean that they can tattoo correctly. By the same token, some beginners can get great results using these techniques after only a few months of practice, and some of them can really tattoo.

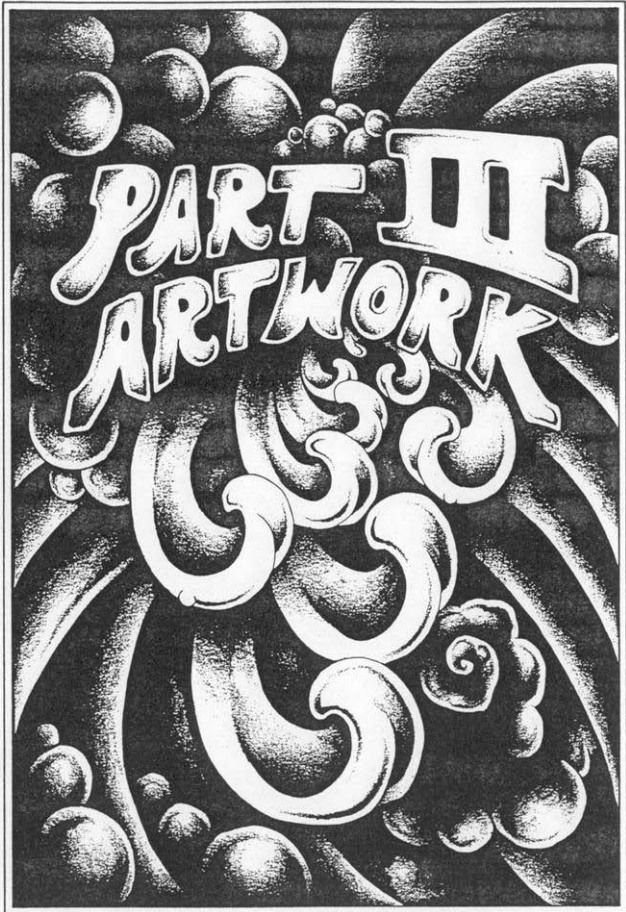
The most important thing that can be stressed about tattooing is **KEEP IT STERILE** right from the start! It is your obligation and your responsibility that the customer isn't going to end up with some terrible disease from your shop. This is the quickest and surest way to get a bad, bad reputation.

Half of the customers will have no idea of what to expect if it is their first tattoo. If you know how to keep your operation sterile for their protection, then you are one step ahead of them and it automatically puts you in the "driver's seat." Let them know that your operation is sterile and that not only do you guarantee that they won't get any germs from your equipment or ink, but you'll also show them how to take care of their new tattoo so they won't accidentally get it infected.

While tattooing a customer, educate them on how to take care of it so it doesn't get infected or ruined. Tell them that you take care of the first half and it is up to them to take care of the last half to make sure it turns out like it's supposed to. Then give them a card or a flyer with instructions on how to care for the new tattoo. You could put a coupon on the instructions good for 20% off his next tattoo and tell him he can give it to a friend if he wants. It will bring you business.

An example of a Care Instruction Flyer for you to hand the customer would read like this (add whatever else you think would help):

- A. The bandage should stay on for at least two hours.
- B. Remove the bandage, rinse gently with cold water and blot dry.
- C. Apply Bacitracin once a day.
- D. Keep tattoo fresh and open to the air. Do not bandage.
- E. For the first week, avoid swimming or long soaking in water.
- F. For the first month, avoid too much exposure to the sun.
- G. Do not pick or scratch scabs.
- H. Itching is relieved by slapping or alcohol.
- I. Keep tattoo covered with clean loose clothing.



CHAPTER TWELVE

Tattoo Designs

One of the basic foundations of tattooing is the tattoo design. Without them, what is there to tattoo? A great bonus to tattooing is the endless amount of nice artwork out there to use as designs and this in itself is a sort of "job security." Printed design sheets, made readily available by tattoo suppliers, are called "flash" in the tattoo trade.

The starting tattooist, or any tattooist for that matter, should have a vast store of these on display for the customer to choose from. Flash sheets are an excellent value for your money and are a quick way to stock up on designs that may take ten years to draw yourself. There are not that many great artists out there tattooing, and you don't have to be a fantastic designer to be a great tattooist.

These sheets are drawn by designers for the tattooist to work from. They range from the traditional to the totally bizarre and you can find just about anything you like. For starters, at the end of each chapter in this book is a good tattoo design to use. A good selection of traditional designs is a must because this is what people expect and more often than not, are what will keep you busy. If you happen upon some particular design theme or style that suits you, you may even want to just specialize in that.

A common mistake in the field is that a tattooist who can draw feels that their shop won't be respectable if they carry "storebought" flash and insist on hand drawing every design on their shop walls. Don't fall into this category, because people have really different tastes and a good stock of all types of designs from all types of artists will ensure something for everybody. It is good business sense to have a variety. If someone wants a custom design for themselves, no problem.

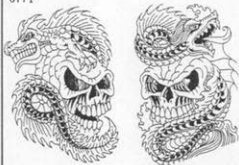
Personalized tattoos are great for sales and the customer walks away with a "one-of-a-kind." If you can't draw it, ask them to bring the design in themselves, or have a local artist do it for you (tack on the extra price with the tattoo.) You can spend hours and hours on special designs for people who ordered them and might not ever return. So, if you're smart, get a deposit when someone wants you to draw up something special. *Charge them for the time spent drawing it up. If they don't want to pay for that, tell them to find a design already made up and you'll be happy to put it on them.*

Designs for tattoos are found everywhere. You should be able to copy just about anything and transfer it to the client (consult Chapter on Stencils). If you look around, good designs can be found from many sources; books, photos, cards, brochures, wall paper, posters, comics, advertisements, television, magazines, etc. The size usually needs to be changed and often it will need to be modified for tattooing in some way. Not everything looks good on skin. So experiment a little and try to use an artistic eye when judging these matters.

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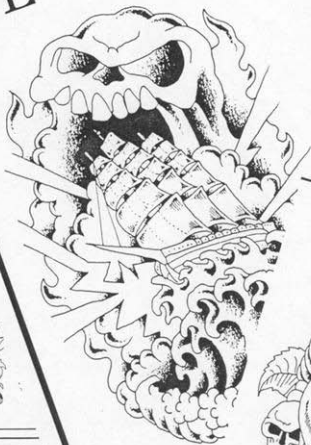


680T

S. J. G.



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TATTOO DESIGNS~



BLACK LINE
SINGLE NEEDLE
TATTOO DESIGNS





SOLID BLACK
 "TRIBAL"
 TATTOOING
 (VARIATIONS AND
 EXAMPLES)



Solid black
 contour
 on
 legs



Solid black
 tattooing on side
 of head on
 "modern" individual



Designs

When you walk into a tattoo shop, there is color everywhere. Unless you specialize in black only, people expect to see designs in some sort of color. Flash sheets normally come in black shading only, and it is your responsibility to color them. The most common way is water color, magic marker or colored pencil. Colored pencil is the easiest because it is cleaner to use and the colors are already visible just sitting on the table (making it easier to visualize). Good advice here is to color the designs simple and eye catching. If in doubt about how to color something, color it with just black and shading. It's very acceptable and always looks good.

If you make a super colorful flash sheet and cannot tattoo it like it is, your business will suffer and people will be let down. Color them just like you plan to tattoo them and everyone will be happy.



Plan to order two sheets of each flash sheet. One is for the walls and the other for stencil making and showing customers variations of it. (This saves taking down and putting it up again all the time.)

Most tattooists, after coloring their sheets, either frame them or wrap cellophane around them before hanging them up. This keeps dirt off, looks very professional and makes cleaning them easier without ruining designs.

Purchasing the larger designs is sometimes the better deal, because a local printer can reduce them, making them any size you want. Enlarging costs more, and for a small fee, you can have all the sizes you want of a particular design. Cut them out, paste them on a sheet of paper, color them in and hang them next to the larger designs they are reduced from. Some customers have a budget and if they like a design but if it is too big and costly, you can still have their business if you have smaller, less expensive duplicates around for them.

The standard designs that everyone is interested in, and you should have a large selection of, is as follows: Roses, flowers, eagles, parrots, birds, Chinese birds of paradise, sea themes and ships, vikings, skulls, dragons, snakes, tigers and lions, carp and fish, grim reapers, unicorns and women.

The flash sheet is the tie between you and the customer, so choose it carefully. Start collecting it immediately and it won't be long before you have an assortment for everyone.

CHAPTER THIRTEEN

The Stencil

When you and the customer have chosen the right design, there must be a way to transfer it to the body part getting tattooed. Even the best tattoo artists rarely work totally freehand (that is, to just start tattooing with no guidelines at all on the body). Remember, there is no erasing a tattoo once it is on.

There has to be some type of guide on the skin so you know where you are going and what it might look like ahead of time. In the tattoo trade, this transfer method from the design to the skin is called a stencil and there are many different ways it can be done.

The ways we are going to cover are among the most popular and it is a personal choice on the tattooist's part to see which ones work the best for him. The most commonly used methods are drawing on the duplicating carbon, the use of hectograph ink, acetate stencils, the latest stencil creating machines and the simple skin type marker.

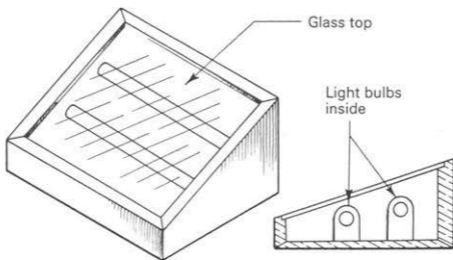
First, a word about the design outcome. When drawing a design on paper, it must be remembered that when it is flipped over to put on the skin, it will come out in reverse. This is easily proven by drawing on a piece of paper. Flip it over and hold it up to the light. This is what you will get on the skin. With this in mind, all the designs will have to be drawn in accordance to where they will be placed. If you want the tattoo to appear in the same direction as the design, the design will have to be reversed or flipped over before the stencils are even commenced. It is wise to practice doing this on several different designs to understand this principle and to work out your own system of reversing.

The Pencil

This is a simple but effective transfer method. The materials needed are a design, a hectograph pencil or pen with hectograph ink and a sheet of high grade tracing paper. First the design (face up or reversed) is taped to a drawing board or secured to a clipboard. Then a sheet of high grade tracing paper is taped or secured over it. The paper should have a 100 percent rag content and be fairly thick in texture to take the abuse of handling. Be sure to cover the entire design and use an economical style of placement (like in a corner of the paper rather than in the middle, so you can conserve space and use the rest of the sheet for other designs). You should be able to see the design through the tracing paper. If you can't, build yourself a small light table to make the job easier.

Take a pencil and copy the design on the paper. It may have to be drawn over a few times to get a solid line. Cut it out, leaving a one inch border around the design. When you are finished doing this, you have the completed stencil. How you get this stencil on the skin is the same method you would use with the ink method or the duplicating carbon. The best adherent to do this with is an ordinary deodorant in stick form. When you have a place where the tattoo is to be located, and have prepared the part with alcohol and a clean shave (covered in detail elsewhere), just rub a little light layer of

LIGHT TABLE



deodorant on the skin and place the paper stencil right over it. Rub it with your fingers for a few seconds and whisk away the paper. Behold, the design is on the skin. Check the alignment and let the customer check it also. It takes a certain knack to do this cleanly every time, so a great deal of practice is required on the tattooist's part to get it down pat. It is easy to practice this, since it can be washed off and tried again. Your friends, wife or yourself work well as practice models.

The Ink and Pen

This method is identical to the pencil technique, but instead of a hectograph pencil, you use a quill type pen and a bottle of hectograph ink. This is much superior to the pencil for several reasons. First, the ink lines cover solid on one tracing and it doesn't need to be copied over to get it solid on the paper. Also, the stencil can be used more than once if care is taken not to totally abuse it in the process. The pencil stencil can be used over again also, but the ink tends to last longer and can be used as many as six times without copying it again. Hectograph ink works quite well on tracing paper and is easier to copy because it flows smoothly on the paper. The only drawback is that the hectograph ink is very hard to find and the only known source of it as of this writing is from Spaulding & Rogers Mfg., Inc. The procedure for applying the stencil is the same as for the pencil stencil.

The Duplicating Carbon

This basically gets you the same results as with the pencil or ink method, but is just a different route to get there. Materials needed are a design, a ball point pen (or something similar) and a sheet of either duplicating spirit masters or Heyer gelatin type duplicating carbon which are available everywhere in stationery stores or mail order supply houses. The middle separating sheet is first removed from a sheet of masters. Then it is taped, tacked or secured to a board or clipboard with the design placed right on top of it. Proceed to copy the design, line for line, with the ball point pen. When you are done, lift the carbon sheet and the design will be copied on the next sheet. This is the stencil. It then can be trimmed and put on by the deodorant stick

application method. The stencil can be used more than once if careful, and this technique is simple because you can have a store of duplicating paper in your desk for future use that is quick and relatively clean.

Marking Pens

Marking pens, also called skin scribes, are surgical marking pens used by doctors to draw scalpel lines on patients. They are non-toxic and are designed to draw right on the skin. It is not good practice to just draw a design on the body, since mistakes and changes are going to occur. Better to rework the design beforehand on paper and to transfer it with another method. The only reason the skin scribe is mentioned here is that it is a useful tool for touchup work, alterations or additions to a design already on the body. For this purpose, it is always handy to have a few ready for when you need them.

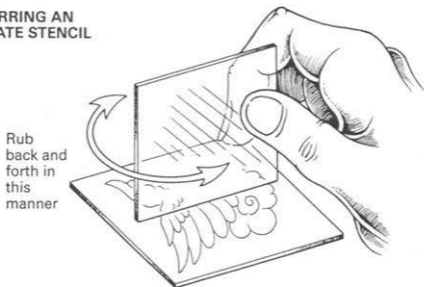
Acetate Stencils

One of the most popular ways of design transfer is with the acetate stencil. Acetate sheeting is acquired through your tattoo supplier in rolls or sheets which measure in approximately .020 inch thickness. The most practical way is in rolled sheets that you cut to size yourself. The curl in the sheeting is easily removed by running under hot water after it has been cut down to size. The hot water softens it up and allows it to be flattened out.

How to do an acetate stencil. Materials needed: A design, acetate sheet to cover design and a stencil cutter. First the design is taped or secured to a drawing board or sheet of glass and the acetate sheet (already cut to size), placed over it. Both are secured to keep from moving and the plastic sheet should be about one inch bigger around than the design. The stencil cutter is a pen-type holder which grasps a sturdy stainless steel scribe pin. You then follow the lines of the design with the stencil cutter engraving the lines of the design right into the acetate. Work slowly and get your lines smooth. Don't include any shading. When done, the acetate should have the lines of the design etched right into it like little grooves. It isn't necessary to cut your way all the way through the other side, just a solid groove is good enough. The stencil must then be deburred. To do this, take another piece of acetate about one square inch in size and hold it upright with your fingers so the piece is vertical and the stencil is horizontal. The idea here is to rub the stencil back and forth with the edge of the other piece of acetate.

This scraping will take the little burrs out of the stencil, making the transfer come out cleaner and sharper. When this is done, remove the acetate stencil from the table and round off the corners with a pair of scissors, so there are no sharp edges. The acetate stencil is now complete. One great advantage to this style of stencil is if you want a reverse image, just flip over the stencil and etch the image on the other side, creating two stencils, one on each side, of the same design. Number each stencil according to the design sheet and put your name on it. Another advantage is their shelf life. They last quite a long time and can be used over and over again. Clean them up and file them away for the next person wanting that design. Since they take longer to prepare, the beginner should stick to the pencil or ink method of transfer at first, slowly building up the collection of acetate stencils. It saves a lot of time to have acetate stencils cut with your most popular designs on them first, so they don't have to be repeatedly drawn over and over when you are real busy.

DEBURRING AN ACETATE STENCIL



There is a different way to adhere the transfer to the skin with acetate stencils. Before going into this though, there is one more method of cutting an acetate stencil other than with the stencil cutter. This way is using an electric engraver or electric stencil cutter. This really lightens the pressure on the hands and it saves time. The only drawback is it must be engraved on a thick sheet of plate glass (or light table). If engraved on a board or desk, the grooves seem to flatten out and distort. The thick glass (at least one-half inch thick) keeps the grooves in the acetate sheet sharp and clean, making a good print on the skin.

The method of transfer in using an acetate stencil involves the use of stencil powder and vaseline. There are several kinds of stencil powder available but be advised that "willow charcoal" *is not the best*, and be sure you get a professional grade of black stencil powder from a reputable dealer. Take the stencil with the groove side up then shake a little powder on it. Rub it in with your finger. Hold it over a basket (this stuff can get messy) and give it a good flick with your fingers. Sometimes a slight wiping with a towel also may clean it up. This step is to ensure all the excess is removed and just enough powder is left to fill the grooves. The stencil is now prepared for transfer. This next step should actually be done first before powdering the stencil because your hands are now all dirty. Wash and scrub them up. Vaseline comes in two varieties. White and carbolated (yellow). The kind to use is the carbolated kind because it is more sticky. After shaving and preparing the skin, smear a thin layer of carbolated vaseline around the area. The most common mistake here is to smear on too much.

It should be just enough to make the skin glisten and any more will smudge the image. Center the stencil and put it on the prepared spot. Keep it pressed in there and work it in with your fingers, rubbing it in on all areas. The next trick is to quickly zing it away from the skin. Don't pull it off slowly. A fine clean design should be left. If it doesn't look too great, just wash it off and try again. This should not be on one of your customers, but on yourself. It should be perfect the first time for the client, and once again, lots of practice on yourself will perfect the technique. Only when you can transfer a design perfect every time are you ready for any kind of professional tattooing.

When finished adhering the stencil, it should be cleaned up. Grasp it with a set of medical tongs and hold it in the ultrasonic tank for a few seconds, then wash it good under the faucet. It then should be dried with a paper towel and then filed away.

If you can get a good Xerox of something, it can usually be reproduced on skin. It's difficult to reproduce a photograph, but there have been done some good likenesses of peoples faces.

Do tattoos from drawings because that way it's easier to get lines for the stencil. If you're doing a back piece the exact size of a record cover, tape two spirit masters together to make the design side by side, tape the tops and bottoms together. Then staple Xeroxed copy on top of the spirit masters, white side up. Do this on a clean, flat, hard table. Just trace over all the lines and there you have a perfect stencil. Remove the staples after checking to make sure all the lines are traced over. Then carefully remove the carbon paper from the sheets, being careful not to dislodge the tape holding them together exactly.

All these methods in this chapter work really well and should be used with each other. Choosing the right method depends upon the circumstances. It can only be stressed that the beginning tattooist practice making stencils and transferring them until perfection is attained. The stencil is very important to tattooing since a clean stencil is easier to tattoo from and a sloppy one produces sloppy results. Perfect stencil making is a requirement to professional tattooing.



CHAPTER FOURTEEN

Lettering

Various kinds of lettering have always been an integral part of tattooing. Many customers want some type of lettering to enhance their tattoo and to make a definite statement.

Tattoo letters range from big bold capitals to small and fancy letters, enclosed in a swirly banner or scroll. You can never be a good tattooist without mastering some form of lettering. Two common styles are block lettering and cursive or scripture writing.



If you cannot letter well, you had better practice on a regular basis. Lettering is a skill and you just can't "draw" good letters. They must be naturally stroked out with smooth and flowing lines. Since few, if any, artists can readily letter right off, the only way to get consistently good letters is to practice a little very night.

When practicing lettering, be sure to use lined paper to keep the letters consistent and straight. The secret to good lettering is correct spacing, flow of line and evenness in height. Art stores carry many books on the subject and it is advised to pick-up a good copy with many examples in it and study them. Practice is the key here, and with a little time, good lettering will emerge.



Using guidelines
to practice correct
letter height and spacing

Tattoo lettering is varied and endless in its styles. After you have a few traditional alphabets under control, you can experiment and create your own designs. Certain styles are more suited to personal tastes than others. You can get quite fancy if it is practiced first on paper. With practice, anything is possible, even slick looking Old English styles.



Personalized letters are great trademarks, and eventually everyone will letter differently, even when doing the same alphabet. A few different alphabets are illustrated below to give you some examples and stimulate your imagination.



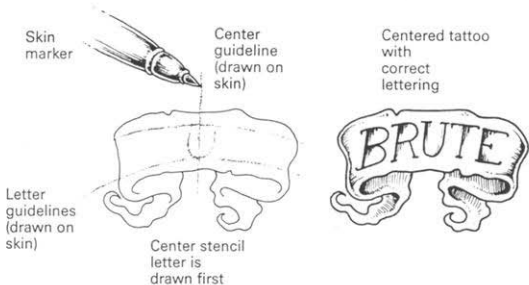
When actually tattooing names and letters, you will still need some sort of guidelines on the skin. Very few people tattoo without them and get satisfactory results. The guidelines are drawn on the skin with a skin type marker or a fine line ink pen.



These lines are not to be tattooed in, but used just as a guide for the letters. Later they will be wiped off to leave just the letters in perfect height. Do not guess with the spacing of letters, they rarely come out right. Always remember the sign "plan ahead."



What you should do is determine where the center line on the banner or skin is. Put a mark (with pen) where the exact center of the banner is. Now add up the letters in the name or inscription, spaces count as one letter. If, for example, an inscription has five letters in it, you know that two go on one side of the center line, two on the other side and one right in the middle.



This procedure simplifies the spacing and saves you from repeatedly trying again and again to evenly space them. Sometimes with certain letters the gap between the letters won't look right and an adjustment will be necessary to make it appear evenly spaced.



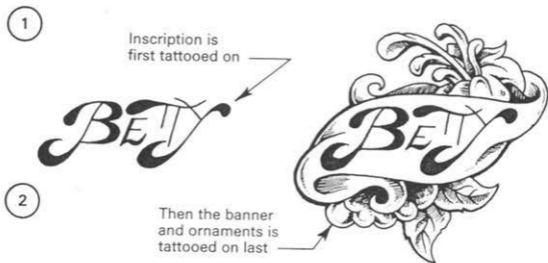
Example: if spaced evenly, may look "gappy"



Move letters closer to fill gaps

Remember that spacing isn't always a mechanical measurement between each letter but a flowing style of placing letters together which look correct to the eye.

When tattooing letters that are inside of banners, be sure to tattoo on the letters first and then the banner second. This is done so that if the banner has to be adjusted at the last second, it could be.



When outlining letters, a good general rule to follow is that the less stops and starts you make, the better the lettering. It makes for a more consistent flow. Blot away the ink after each step so you can see what you have done and where you are going for the next stroke.

Some customers prefer names in a handwriting style. If they have better handwriting than you do, they can write what they want on a guidelines piece of paper, which you set-up, and then you can copy it and stencil it on the skin. This appeals to some, because their tattoo inscription will be in their own handwriting.

Discourage the use of girlfriends' names in tattoos. These names are usually outdated in the majority of cases, and it leaves the customer with a name they no longer want on themselves. When people insist on it, just say no. If a compromise must be made, tattoo the name in a light red ink so when they return to get rid of it (and they will), you can tattoo over it to hide it. See Chapter on Cover-ups for more details on this.

One more important thing to bring up is spelling errors. You would be amazed at how many people are walking around with misspelled words tattooed on them. This looks bad and is very unprofessional. Never guess at a word that you don't know and have a dictionary handy to look them up. Be positive at what you are spelling. If they are foreign words, have the customer spell them out for you, and the same goes for names.

Be careful and practice every night, and you will soon master lettering, an important category in professional tattooing.

PART IV
TATTOOING



CHAPTER FIFTEEN

Outlining

Outlining by itself just might be the single most important aspect of a good tattoo. It takes special attention and concentration while performing. A cleancut line done with confidence displays professionalism and is the solid foundation for a great tattoo. The world's greatest foundation is useless if the bricks are faulty, and the greatest quality outline is only as good as the pattern. In other words, as important as good outlining is, the outline itself is only as good as the line on the stencil. So, the first important step in outlining is taking the time to make the best possible stencil that can be made. Keep the stencil simple. In the case of a complicated design, use only the major outlines to establish the design and the other detail type lines can be added later by freehand.

Assuming the preparation of the skin has just been finished and the area of the design is lightly coated with carbolated vaseline (see Chapter on Sterile Techniques first), just the design and not too much beyond it, so the hand won't slip around and the bridges will be more stable. The first real step is to fill the reservoir of the machine tip with black tattoo ink. To do this properly, the machine should not be running and lightly dip the tip into an ink cap holding black ink. Careful pains must be taken not to touch any surface of the cap with the needle tip. The end of the tube will fill up. This supply of ink does not last very long and must be frequently dipped back into the cap for a refill. Run the machine over a paper tissue to test the ink flow. If the machine spurts and spits out ink, stop it for an adjustment. (Check Chapter on Machine Setting). Usually adjustment of the bands will correct the problem.

Always tattoo either forward or sideways with the machine. Outlines and shading both are done like this. In this direction, the needles have a slight backward pressure on them against the skin, which keeps the needles in the bottom of the tube where the ink is. Rubber bands keep this position in check, but tattooing in this direction keeps the needles working where they belong and does not work against the natural function of the machine. It makes nice tattooing easier. Using a square tip tube is a plus.

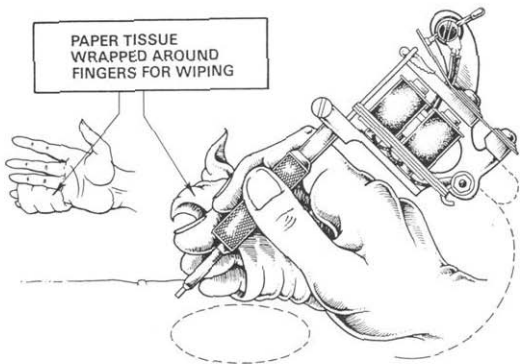
Outlining is done from the bottom up, since sweat, blood and ink run down, it makes sense to start at the bottom to avoid smudging while working up. Since wiping the area continuously while doing the tattoo will remove the stencil, starting in the bottom position will prevent this.

Tattooing must be done on tight skin. It will have to be stretched by the free hand of the tattooist. It creates a taut and solid surface to work on. For all practical purposes, it is impossible to tattoo loose skin. No matter what style of stretching is used, just make sure the needles go into a tight skin surface. (Refer to Skin Chapter for more on this.)

When putting ink into the skin, the machine should take on a subdued sound as soon as the needle touches skin. This is called "choking down." If it doesn't sound like this, the machine is probably running too fast, try to slow it down a little. It doesn't take a lot of power to do good tattoo work.

To begin, start with a few insignificant lines near the bottom of the tattoo. This is for settling yourself in and the client down to the feeling and to warm up yourself with some practice. Somewhere on the design are a few lines that are less important, or secondary, to the major or more important lines. These secondary lines are the ones to start on and work your way up to the primary lines. Make sure the bridge is solid for the area and make a practice stroke. Do this over every time you tattoo. It rehearses the movement for the fingers and gives you time for any last minute shifts or adjustments. Have the machine off the skin, press the footswitch to turn it on. The machine should be running before you put the needle into the skin. Never start it while in the skin. Make the line without hesitation and continue in this manner. Don't wait until the machine has run out of ink, refill it every few lines and keep it full for the whole job.

Keep a paper tissue wrapped around the two lesser fingers of the tattooing hand for wiping. As the work progresses, the working hand neatly tilts over to wipe the work when it is necessary and then just continue tattooing. It's efficient and close to the work. Press gently straight down and then lift straight up. You tattoo, then wipe, then tattoo some more, and wipe, etc. Keep a fresh supply of tissues nearby for this purpose.



A Word About Paper Tissues

There are many brands of paper tissues, all are not satisfactory for use in tattooing. Some will just pull apart as soon as you start wiping ink with them, others are very dusty and this is where your big problem starts, especially with outliners. Small unseen paper dust particles will be picked up off the skin between the outliner needles. At once, your outline will change from a solid line to one that looks like two lines and with a very scratchy appearance. Also, the line will be starving for ink because of the paper tissue dust packed in between the needles. To remedy this problem, take a single needle and carefully pick out the paper particles from between the needles, after that, a few seconds in the ultrasonic cleaner and your outline needles will work like new.

When outlining, just like the rest of tattooing, close attention must be paid to what one is doing. Check needles frequently to make sure they are not hanging up. If the needles continuously hang up, they are probably sticking out of the tube too far and need adjustment, this usually happens only with a round tip tube. The needle tips should be just outside the tube tip so they can barely be felt with the machine off.

Unless the machine is running too fast, those needles aren't going in as deep as they appear to be, but if it's running too slow, you will lack depth. Don't run the machine faster than what you can keep pace with and always work as shallow as possible.

What would be a good speed for single needle would be too slow with more than one needle. Also, using more needles reduces that tingling sensation that most people say they feel. By reducing the number of needles all the way down to one, they will feel less tingling. For back work, use a three or five needle outliner, as opposed to a single needle for a thicker, flowing line.

There are two ways of working an outliner. Use very short strokes and have only enough needle showing below tip to be visible when machine is resting. Move machine along so tip is in contact with skin. Otherwise, use longer strokes, set tube a little higher in the jaws and have a little more needle showing below the tip. When doing this, work off the needle exclusively, don't try touching the skin with the tip of tube. A good system is to use the former for large body pieces (the skin must be very taut), and the latter for small intricate work.

The tattoo outline should be sharp, solid and definite. As the machine is being held and bridged, the needles should be just skimming the skin surface. A tattooist doesn't have to dig it in. Don't use brute force, the machine will do the work. The tattooist's job is to guide the course of the needles so they puncture holes in the skin where the design calls for them. The ink, flowing along the needles, enters the holes by the way of gravity.

The main causes of bad lines are: Damaged points, (check frequently) side to side needle quiver, not enough ink flowing at the tip, in too big a hurry, too much pressure of the machine, digging into the skin and tattooing loose skin not stretched tight. If all these errors are avoided, few problems will occur and good sharp outlines will be consistent.

PROBLEMS

Wobbly line



- Machine running too fast
- Needle side quiver
- Trembling hand syndrome
- Customer moving around

Dark black edges
or double line



- Needles going in too far
- Bent needle hanging out on group
- Paper tissue packed between needles
- Machine too slow
- You are going too fast along the surface
- Not enough ink in tip
- Skin not stretched enough
- Bottom needle of group worn out

Faint line



Ragged gapped line



- Needle point damaged
- Needle side quiver

Needle snags/hangs up
in skin

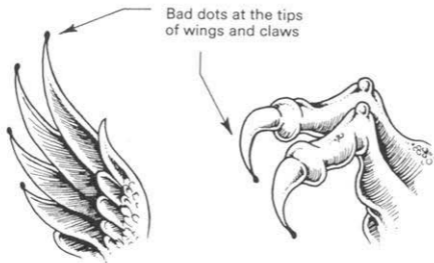


- Machine is running too slow, accelerate it a little

If you mentally think about the line that you are about to tattoo, your hand will automatically carry it through. Don't hesitate, or stop and start again. Let the lines flow smoothly without interruption. Before a really long line, get an ink refill so you won't run out in the middle of it. If you know the beginning of a line, and the end of it, the middle of it will take care of itself.

Start on the beginning of a line and not in the middle of it. It's hard to reconnect lines to match perfectly. A perfect sweep is better than broken sections.

When you do points or tips with one stroke instead of two, lift up a bit and lighten up on the pressure so you won't get a heavy dot at the tip.



Eagle tips, fangs and claws, etc., can be done in one single sweep, but take care that the needle points aren't ruined and make sure that you have enough ink. On the lines of ribbons or banners, do it in one clean stroke. If not, stop at intersections or places where if you make a bad joining, it can be easily shaded out later.

In ribbons, scrolls and banners which will hold names or lettering, don't tattoo in the top line of the banner until the lettering is done. That way the top line can be readjusted if need be. Bad lines can usually be hidden by some sort of shading.

The quality of the outline largely depends upon the quality and condition of the needles. If good results are not obtained, check those needle tips carefully with an eye loupe, both the tips and their motion.

When the outline has been finished on the tattoo, give it a green soap wash and gently wipe it with a clean towel. Examine it carefully and see if there are any spots which need touching up. Any disconnected lines or forgotten spots? If so, touch those spots up. Wash it again and coat with Vaseline. Shut off the power pack and give yourself and the client a short break. Mention that the worst part is over. Remove the tube and needle bar from the machine and place the tube in a tray of soapy water so the ink doesn't dry. Place the used needle bar in a box labelled "used" for later washing and sterilizing for reusing, or for later soldering off and disposal, or to be resoldered with another new needle.

It should be mentioned here that most new customers are very nervous at first. That's why you start on an unimportant part of the tattoo so if the customer jumps around at first, it won't ruin the tattoo. Get a good grip on the client with the free hand for more stabilization. Tell them that the outline usually smarts more than the rest of the tattoo. Get them calm and talking to keep their minds off the tattooing, and if they persist in jumping around, explain to them that they are ruining their own tattoo and you will charge them double for the extra work involved. This will usually calm them down. Calm customers are good for business. Just like not wanting to hear someone screaming in a dentist's office, it also holds true for tattooing.

This chapter covers just the straight forward mechanics of outlining a tattoo. For more information on this and how it ties in to the overall picture of giving a tattoo, see the chapter "Tattoo Review."

CHAPTER SIXTEEN

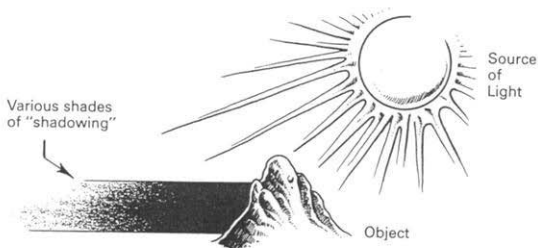
Black Shading

This will be one of the chapters that most people will turn to first. There seems to be a certain fascination to the black shading of a tattoo that really attracts the eye. Tattoo artists love black shading, it presents a challenge on every design and a chance to really show your tattooing skill. Customers are drawn toward it because of its dynamic and highlighting effects. It seems to really lift the design right off the skin. Well done black shading either makes or breaks a tattoo, and its feathered type effect looks extremely professional, somewhat reminding one that it has been laid down with an artist's airbrush instead of a tattoo machine.

Black shading is used to highlight and/or recess parts of a design to make it appear three-dimensional. A tattoo on skin or paper is two-dimensional and proper shading will give the impression that the design is standing out in light and appears more realistic than it really is.

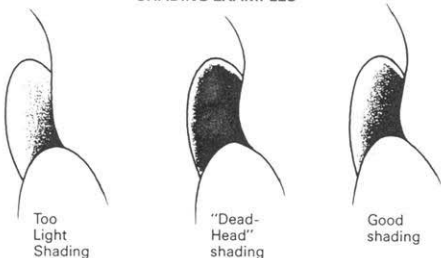
The art of shading is more than just black feathering against a line. It's the science of light and shadow. Where there is a lot of light, there is white. Where there is no light, there is black. In between the spectrum are values of grey and these are shading. Shading and shadowing depict a light source (in relation to the design, not the light bulb over the table). Its teaching is beyond the scope of this chapter, and for more knowledge in this field, some good art books on light source, shadowing or rendering will be a great benefit to follow up on this with.

SHADOWING



Good tattoo shading requires experience and is an acquired skill. Diligent practice pays off here because sometimes tattoo artists are judged solely by their peers on the quality of black shading that they do. If done too light, it will not stand out. If not feathered right, it will appear blunt and the shading looks as if it ends abruptly. This is called "dead-heading" and is undesirable.

SHADING EXAMPLES



Shading must be mastered because, not only does it really make a tattoo stand out, but many tattooing errors and tattoo cover-ups can be hidden and corrected by proper shading. Black shading is the next step in the tattoo process after outlining. All the black work must be done before any color can be put in.

The tattooing spectrum goes from dark to light. That is black first, then the next darkest color, etc., and the lightest colors for last. If not done in this order, the dark colors mix with the lighter ones in the pores already made from the machine and a bad smudged mess will result. So, all the black work must be done first, and after the outline is finished, that means the shading is next.

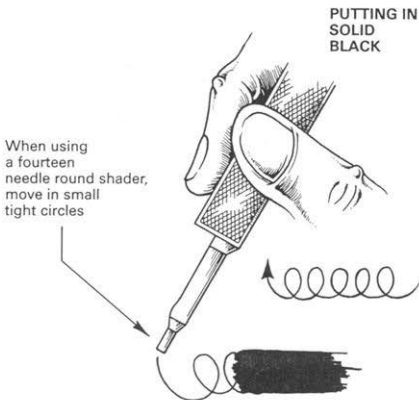
Black shading can be so attractive that some tattooists use this style exclusively. They feel that a black tattoo (one done only in black ink, no color) is the only way to show a tattoo and that the addition of color only hinders the design. With some of the quality work out nowadays, especially single needle tattoos, it's not hard to appreciate this point of view. Black tattoos take on an aged "patina" with time, and after a few years, if the tattoo is retouched up with more black, a certain quality is obtained which cannot be reproduced in any other way.

The tattoo machine should have the four or six needle shader bar set-up properly with the corresponding shader tube. Let the needles stand out about 1/32 inch. The two outside needles should touch the sides just enough to eliminate any side to side motion but not enough to make them tight. Check it running and adjust so there is no side quiver (see Machine Set-Up Section for solutions). Now the artist is set-up to do the black shading. Start by washing the outline with green soap and apply another very thin coat of Vaseline over it. Dip the tip of the machine in the ink cap that was used for outlining (being refilled when need be) without letting the needle points hit

against any side of the cap. The machine tube tip will fill up and the ink will gravity flow down the needles and enter the holes your shader needles are making in the skin and at the same time putting in the black.

Begin the tattoo by working on the portions of the design that are to be solid black. Let the machine do the work and do not press down on it, just guide the machine and move the tip in small circles, letting the needle points enter the skin where you want the black ink to go. Never try to run out of ink and try to keep the needles continuously wet with flowing ink. Don't waste time by tattooing without ink or doing a tattoo that is bleeding excessively. Always work off the points of your needles for best results.

Learn early in your career how to put in solid black (or color) where it is needed. The tip must be kept moving in small circles, slowly covering the desired area. Wipe occasionally with tissue to keep an eye on how it is coming along. Do not over do it because the skin can only handle just so many of those small holes. Remember, all those holes have to heal later. Some people think that the deeper you go, the better the results. This notion is unfounded. If continuously grinding and pressing the machine, the skin will rip and excessive scabbing will occur which will reject ink from the body. If an area is covered way too rapidly, unshaded areas will be left and a very basic rule will be broken, and that is that a tattooist should not go back over what has already been done. Do it the first time right. The skin has to be stretched tightly and the needles should be going into the skin evenly with about a 45° angle measured between the skin and the tilt of the needle and tube.



With all these small holes being made in the skin, some bleeding is quite natural and should be expected. If it is overly excessive, double check the needle depth and check the needle points. Try a slower power on the machine. Bleeding would be called excessive when it drips down the arm or when an area is finished and the only thing that can be seen when the tattoo is wiped off is blood.

As sections of the tattoo are completed and wiped, a thin coat of Vaseline might help the situation. Occasionally, carefully wipe away the bottom of the tube tip where excess ink and Vaseline tends to accumulate. Some customers bleed a lot regardless of how well the machine is tuned. Some body parts tend to bleed more than other parts due to differences in skin texture. Bleeding must be accepted and do the best possible job, wiping a lot.

To shade properly, make sure the bridge is set and stable (consult Chapter on Holding Machines) as should be always done. With the machine running, set the needles down gently in the skin along the outline. All four or six needles should be in line with skin surface at all times. No one side should be any deeper than the other side. With the machine running and the needles riding against the outline, make sure the tip of the tube is touching the skin before starting. Right at this point, the machine is swept away from you with a flick type wrist motion. This sweeping motion brings the needles up and away from the skin.

When this happens, the needles go from full depth in the skin to gradually getting shallower and finally out of the skin at the end of the motion. Hence, when at full depth, full strength black is inserted and while the needles are swept away, the black ink gets toward the surface of the skin and creates grey tones. That beautiful effect is called feathering or shading. If the shading is to be light, the sweeping motion should be quicker paced. Don't let the machine dwell on the outline for any length of time. If it is to be dark, a slower motion is needed. How much shading is achieved or the quality of feathering is determined by the speed of the sweep and the angle of the machine which is being "whipped" out of the skin. It does require a certain feel or touch, and many hours of practice are needed to fully acquaint oneself with the results that are desired.

You can manipulate a shader in any direction. In shading, you always work off the needles. You must control the action and location of the needles. This is done by attentive looking at what direction is being taken. Black shading can begin on any part of the tattoo, but usually it is best to start at the top and work down, or from the side. As work progresses downward, the hand and bridge will be resting on unshaded skin and not get all inked up and bloodied.

When all the shading is done and you and the customer are completely satisfied, give the tattoo a green soap spray and gently wipe. Coat with a thin layer of Vaseline and take a short break. Thoroughly wash the black ink out of the tube and off the needles and bottom of the tube tip. Hold the tube under hot running water, this will knock out all excess ink in the tube tip. Run the machine on folded tissue until the needles hitting the tissue show only water. This must be done or any black ink left in the tube will ruin your colors. Just the force of real hot water going into the tube tip does a fine cleaning job.

Wash the tube and needles described above after each color being used so one color does not mix with the next one.

SWEEP SHADING

Wrist
movement

Upward
flick
motion

Machine
faces
toward
shading

Notice:
angle of
tube tip
and
direction

Pick
up
machine

BRUSH SHADING

Back it out
and lift,
increasing speed

EXAMPLES OF SHADING



Grim reapers skull and hood



On an animals leg

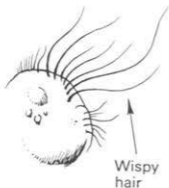


Feathers on an eagle's wings

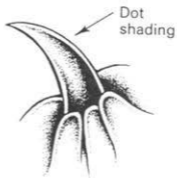
Shading Tips and Tricks

- Black ink goes in much easier than colors.
- You might have to run a shader a little faster than an outliner.
- Grey shading a Japanese sky is gaining popularity. This is accomplished by having a cap filled with black ink diluted with distilled pure water. The more water, the weaker the tone, creating a light, washed out grey effect. Another way of achieving this grey effect is by using undiluted black in the machine, and using distilled water on the skin. You basically wet the area (using a soft brush) before you sweep across it. This is a good way on larger pieces such as the back. Practice this, like in any technique, elsewhere to perfection before doing it on a customer.
- Single needle and outline needles are used to make fine hair and wispy effects. Dotting effects are also achieved by this method.

EFFECTS



Wispy hair



Dot shading

- Shading or feathering also work well with some colors too, especially red and brown.
- On human figures, use brown or tan shading to show form, curves or muscle bulges. Use the natural skin tone as a highlight and shade to enhance the natural skin.
- Most of the commercial design sheets have designed shading on them. It is an individual matter to change shading by adding or subtracting to suit one's artistic tastes. This should be done anyway to put an individual stamp on each tattoo.
- Just like the outliner, the needle bar loop must be snug on the armature bar nipple. The shaft of the needle bar cannot come in contact with inside of the tube.
- When you change shader needle bars, you will see a series of grooves in the tip. File these out before putting in a new set of needles. A good tool for this is a specially designed mini file available from Spaulding & Rogers Mfg., Inc. By doing this, it doubles the life of the shader tip.
- When moving the needle bar shaft up and down manually, it should feel smooth and free. If you feel a rub, correct it. The needles may be off to one side and not parallel to the tip or not spread correctly. Another rubber band may also correct this problem. Needles may be bent slightly down to hug bottom of shader tip. Never bend the needle bar.
- You may also wish to experiment with a round shader. These are also available from your supplier and hold as many as 14 needles. In appearance they resemble an outliner with a large tip. They have advantages in that they are not prone to cutting the skin up too bad and they can put in a lot of ink at a rapid pace. You will not get the shading effect with the round shader that you will get using a flat one.

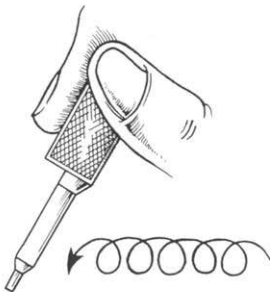
Brush Shading

This is a type of shading that is not familiar to everyone in the tattoo business as is common sweep shading. The reason is it's quite a hard technique to master and requires a lot of practice. It also takes a super running tattoo machine. The effect you can get with brush shading on a tattoo is very outstanding and puts the artist in a separate class of his own. After you have accomplished this technique, other artists not so fortunate will look up to you with envy. Some will even want you to teach them how to do it. The most unique thing about brush shading is that you don't have to stand on your head or get in a bent-out position to do it. You can work your shading forwards, backwards or to the side and get all the same effects with little effort. You can practice with a pencil on paper or if you want to be real technical, you can fasten a pencil to the tube on a tattoo machine. This way, you will have the weight of the machine in your hand the same as if you were actually tattooing. The technique is all in the movement of your wrist as is sweep shading, but the brush shading is done from a very slow movement to a very fast movement. As you pick up the needles from the skin, you must turn your machine sideways, moving slowly, and putting the black in solid to start with. As you want to feather out the shading, you pick up the speed of your wrist movement back and forth and at the same time, picking up on the machine while going away from the solid black area. This can be accomplished by going in a forward or reverse position but must be done fast to get the effect desired. Use a low power on your machine, and if you must go over it again, be very careful because you can get too much black into it and ruin the effect of the whole tattoo. Refer to diagrams.

CHAPTER SEVENTEEN Coloring

The actual process of coloring a tattoo is a relatively simple one if you always remember and apply a few key rules and regularly practice them. The technique is the same for solid black tattooing as it is for solid coloring. Actually, black tattooing is a little easier as black ink seems more readily accepted by the skin than colored ink. The motion is a circular one, and coloring a tattoo is done in small circular steps, a little at a time. If a constant pace is maintained, a lot of area can be covered in a small amount of time. Each circle just barely overlapping the last circle until the areas are covered solid in just two sweeps. Never do an area more than once or twice over. Just small, constant, flowing circles covers an area smooth and efficiently, and always working off the tips of the needles.

Small
tight
circles



Don't press hard and don't stay in one area repeatedly criss-crossing or try to color the skin in like with a crayon or pencil. This will turn the skin to hamburger and create a bad scab or possibly, leave scars, the ultimate error. While the needles are in contact with the skin, keep the machine moving, never hold it still or that will cut the skin. Don't go back over any work just done. Get it right the first sweep through. It will look better with the fewest amount of holes in the skin. The more holes, the more bleeding, the more scabbing, and the more ink will be absorbed out in the scab. "Packing it in" won't get you anywhere so let the machine do the job and pay attention to the work being done. A little area is done and then wiped to be inspected. Continue in this fashion and monitor the results. Any adjustments can be quickly made when done in this manner. The color of the tattoo will not be any more colorful or brighter when you try to hammer the color into the skin.

When applying color to a tattoo, puddles of ink will get all over the skin, sometimes totally obscuring the outline. It's not good to be in such a hurry as to not take the time to continually wipe the excess away. Tattoos are ruined by running the color over the outline. By continually wiping away all the excess color, strict attention can be paid to what one is doing and where one is going. When inspecting work in progress, the skin must be stretched tight (as if tattooing) so any mistakes will be readily picked up. If the color is solid when the skin is stretched, it will be solid when relaxed in a normal position.

If the area that is to be a solid color has skin showing through, (it is not solid, but is sketchy looking and has pockets of skin that aren't colored) something must be done to correct this problem. The easiest solution is that the tattooing circles are not small enough. Make littler circles, cover a smaller area and slow down a bit. Another reason is that the needles are not in contact with the skin at all times. This means that in all the tattooing excitement, the machine is not kept steady and the needles are being lifted up off the skin in some areas. This doesn't mean to press harder, but to just keep the needles in the skin. Let the machine sink the needles, you keep the machine in line. Another reason for open pockets in the coloring is that the color itself was not properly mixed. Be sure to shake the bottles of ink good before using. This will maintain an even color value within the bottle. Stick to the small flowing circles, letting the machine take care of the tattooing and good results will be obtained. When you come across tiny areas that can't be done with a shader, use a three or five needle outliner.

For the coloring process, the needle tips should hang out of the tube end just so you can feel them and ought to extend out of the tube around 1/16 inch when the machine is running. This setting will keep the color flowing in but won't really plow into the skin. Over zealous tattooers can get carried away and this machine setting is extra insurance against scarring and bleeding. Later on in your career, the setting can be changed to a longer stroke, but only when the feel of coloring is totally familiar and confidence is assured that you have everything under control.

Every time a different color or shade is used, the tube and needles of the machine must be thoroughly cleaned. Haphazardly dipping into colors can't be chanced because sloppy and muddy mixes will be the result. The only way just pure color can be obtained is to have 100 percent clean needles and tubes each time. Clean out the tube between colors by running the machine under hot water until the machine basically washes itself clean. Be sure to run the needles across a tissue in reverse motion to remove all excess water from the tube tip. Never do this in a forward motion because it will pick up pieces of paper tissue between the needles. Get in the habit of doing this every time in between color applications and it will ensure good clean color tones. After completing every color on a customer, spray the area with a green soap spray, wash and apply over the area a thin coat of Vaseline. The Vaseline will fill some pores and keep other colors from entering the holes and spoiling the color.

When putting in color, a certain sequence must be followed in order for a tattoo to come out the best possible. If it is not followed, muddy mixtures will appear, clouding up the tattoo and spoiling it with dull tones. The basics for the sequence are simple. Colors must be applied from the darkest tones to the lighter ones. This is why black shading is the first thing done after the outline. All solid black and the black shading is the darkest color and must be applied first. The color sequence after this is as follows: 1) Dark purple. 2) Blues. 3) Greens. 4) Light Purple. 5) Browns. 6) Reds. 7) Orange. 8) Yellow. 9) White.

A Word About Green Tattoo Color

It seems though that everyone in tattooing at some time or other has had a problem putting green into the skin. Of course there are many and varied reasons for this. I will go into this in detail because I think it is a very important part of tattooing that every artist should know. A tattoo machine is only as good as the artist behind it. For starters, a good running machine with a new set of needles is a must. The most common mistake with green is that the artist doesn't know when it's in the skin. This happens because most greens are mixed with white and when tattooed into the skin, appears more white than green. (Example - Spaulding & Rogers Bright Green). The inexperienced artist will overwork the area, thinking he hasn't got the color in because it doesn't appear to be green enough. When the area is overworked, the color will just go into a bubble on the skin which will be mostly blood. When cleaned off, the skin will have a fuzzy look, and chances are there will be a thick scab and a sore tattoo to go with it. This you don't want. So, although your green color may take on a very white look, don't worry, it's in there. Another good rule is to work it slowly, the skin will only accept it so fast and beyond that, it's lost motion.

These same methods apply to all blue colors also. Always use Vaseline on the skin while working colors, it makes clean up more easy. If you find that your green has healed with little white spots showing throughout it, these are called "holidays" and usually comes from working the color too fast. In other words, there are spots you have missed due to an untrained eye. Yellow color is notorious for this and most always requires to be gone over twice during the process of the tattoo. It's not a hard color to put in, it's just deceiving to the eye.

According to this chart, white would be the last color to be put in a tattoo. Brown before yellow, etc. When a color is tattooed as mentioned before, thousands of tiny holes are being punctured into the skin and the color goes down these holes to stain the under layers of skin. These holes are all open when working, so one color can actually flow into the holes of another color and stain it differently. Bad mixtures are the result of this. If a dark color is used first, a lighter color can't really change it but if a lighter color is used first, and then a dark color over it, the dark can change the light color, staining it dark. When a dark to light sequence is followed, this overpowering condition disappears. Before tattooing color, it is good to mentally line up the color sequence that is going to be used beforehand so no mistakes are made and some order is maintained efficiently without stopping and thinking about it.

Tattoo colors can be mixed with each other in a cap and/or blended together in the skin for even more variation of tones. Remember though, not every great artist uses hundreds of different colors, and a piece of work should not be evaluated just on the amount of different colors that it contains. A tattoo with 18 assorted colors can look really spectacular, but so can a tattoo with three or four colors. The trick is proper color placement to get a certain effect rather than random selecting and placement of color just for colors sake.

Rules for Mixing and Blending Colors

- 1) White can be mixed with any color.
- 2) Except for white, leave the purple alone.
- 3) Red, orange and yellow can be intermixed and blended.
- 4) Browns mix well with orange, red, yellow and white.
- 5) Make grey by mixing white with black or by adding distilled water to black.

Spectacular effects can be achieved by blending the colors in the skin, letting one color flow into the next. This is a rainbow effect, and the ranges of color in a rainbow make a good guideline to remember the blending scheme.

RAINBOW COLORS

Purple	_____
Red	_____
Orange	_____
Yellow	_____
Green	_____
Blue	_____

Any color can be blended with the color next to it on the rainbow. Different color values of the same color can be blended also. In between the two colors will be a zone with the two colors being mixed together. This is where the two colors meet and blend. For example, let's color in a leaf. The outline for the leaf is done and it has black shading by the stem. The darkest color is done (the black and black shading) and now some green must be added. It will go from black shading by the stem to a dark green, fading to a light green, and then a little yellow on the very edge. It's all right to color over shading as the black shading will show through. Wash out the machine and needles very good (prescribed elsewhere) and tattoo in the dark green around the shading, right over the shading and feather it out toward the edge. Leave space for the other green. Wash out the machine and tattoo in the light green. Color in slightly over the dark green and color in the leaf almost to the edges, maybe slightly feathering it out on the edge. Wash out the machine and add in yellow or white, mixing it in with light green. Wipe with green soap spray and coat with Vaseline every color change. A super color blend is achieved this way and must be practiced. It's best to do this blending in one sitting while the ink is still "wet" in the skin and the ink mixes a lot better this way.

White is the last color you put in a tattoo. White pigment is lighter than human skin and it won't stay pure white for long. It's a fickle color and it is highly subjective to the sun, tanning and turning a skin tone. Use it sparingly by itself. It is particularly good though for lightening other colors. It looks good in eyeballs. Some pretty results can be obtained by tattooing an area white, wait until it's entirely healed, and then put a tattoo over it in the regular fashion. It is also possible to do a more subtle work like using a dry shader, with no color in it (put a very light coat of Vaseline on the needles) and a very light coat of dry, powdered red (or other color) across the skin and then sweep across it with your shader for a pretty blush.

After having finished a tattoo, it should be washed off with green soap and sprayed with an alcohol solution. It would now be a good time to take a few photos for the portfolio and then carefully bandage the tattoo up. They look great when just finished. All glossy and sharp. Tattoos look their best when just finished and it's a great time to photograph them, at their peak condition. Before taking a photo, be sure to blot the tattoo perfectly dry and don't have any Vaseline on it or the results will be a poor photo.

CHAPTER EIGHTEEN Cover-Ups

"Cover-up" is a term that refers to the technique of freshly tattooing a design right over an already existing tattoo. This is done in such a way that the new tattoo will totally cover over or completely hide the original tattoo. This is usually done because the first design is no longer wanted and a new and better one can be placed over it. Oftentimes, crude tattoos done by mistaught tattooists eventually become uncomely eyesores to the owners and they wish to change the situation. A good tattooist that understands cover-up can change their whole outlook. Because covering up tattoos is an art in itself, it should be seriously studied because a goodly portion of income can be made by doing this. Believe it, a good living can be made by covering up other tattooists' bad mistakes, and unfortunately, there is a lot of it around to do.



A bad tattoo that needs a cover-up



The new outline is placed over the old tattoo



The finished black "cover-up" tattoo

The real key to doing good cover-up work is taking the time to correctly choose the right design. A perfect covering design must be right in many aspects and meet several requirements. It has to be a large enough design to more than hide the old tattoo. It must have substantial dark areas, like lots of shading, to make the old tattoo disappear under it.

And, on top of all this, the design should be pleasing and acceptable to the customer, have some sort of point of interest (like a head or claw) to draw the eye away from the actual cover-up area. Eventually, the tattooist will use a lot of imagination to invent new designs to cleverly cover-up old ones, making each one a custom tattoo. But it is still worthwhile, especially in the learning stages, to review some traditional standards popularly used in one form or another to achieve excellent cover-up success.

To start with, the heavily black shaded wings spread, are common cover-up themes. Just about any old design may be hidden in the shading of wings, yet the head or claws (or whatever else that might be added on) will detract the eye from the old design (now covered up) and will create a brand new tattoo. When finished, the customer will be proud of it instead of ashamed.

The great feathered tails of peacocks, the dark flowing hair of a Gibson girl or the draping folds of a grim reaper's cloak are also great design ideas capable of disguising even the worst of tattoos. It's easy to imagine an old tattoo getting lost and hidden in these designs and still have plenty of artistic license leftover to put a personal touch on any one of them. Since every cover-up will be slightly unique, it will be hard to find designs "right out of the box" to cover every situation. This means that designs will have to be modified or adjusted accordingly to fit the job. Maybe a design is perfect but too small, so get it enlarged, or a customer wants a peacock to cover an unusual tattoo, so draw in extra feathers to cover it sufficiently. Be flexible with the chosen design and be brave to change a few lines as the case demands, and eventually, a good eye will be developed to assess the job and provide sure solutions with a minimum of wasted time.



Grim Reapers:
hide old designs
in folds of
cloak

Peacocks: bad
tattoos are
covered with
tail
feathers



Figurines:
unwanted designs
are hidden in
hair or beards

With a good foundation now in what is supposed to be accomplished, the artwork itself isn't all there is to be concerned with. There are a few things to be considered about the actual tattooing process of cover-ups also. For instance, obviously, an old tattoo already has plenty of ink in the skin to begin with but while tattooing another design over it, it is an easy thing to forget. The general rule to remember is to not overdo the shading or coloring when tattooing directly over the old design (because it must be kept to a minimum on an already saturated area). Apply just enough of the new ink to lose the old design under it and then stop. A major mistake is to get carried away when it is not really needed. It is surprising just how little ink is actually needed to successfully cover-up an old tattoo. Too much ink will really spoil a new tattoo, and too much ink means too many holes in the skin and could quite possibly leave bad scar tissue. There is no need for excessive grinding of the machine into the skin, you won't get more ink in there, anyway. The lighter the touch, with just enough ink to do the job, is the way to get a superior looking tattoo. If a sharp eye is constantly used to see what is being developed, over-doing it won't suddenly creep up on you and progress can be steadily monitored.

The Chapter on Names and Letters should be studied so the beginning tattooist will learn right away the correct procedures when doing inscriptions. Unfortunately, there are just too many tattooists around who know nothing about this and it will be their work which will come to you in need of improving, like a total cover-up job. Many of them will be old girlfriends' names that were tattooed on in a sudden whim. The only positive thing coming out of this is that most names are usually done small and can be covered up fairly easily. This is good for everyone concerned, being inexpensive for the client and a fast turnover for yourself. There is an unlimited amount of ideas to be used to hide names in. Sometimes the name is within a banner or flag, and the customer might want to keep the original design, but wishes only to be rid of the name in the banner. The name can be reworked into a bunch of flowers and leaves and still maintain much of the original design.



Problem: just a partial cover-up



Solution: a clever design

Sometimes, customers may show-up wanting advice in having a tattoo removed, but a little talking on your part may persuade them more towards a good cover-up than actual surgical removal. Oftentimes, a good looking tattoo will be more what they wanted in the first place. It is worth taking the time to show them what you can do and usually they will decide to go for a cover-up. A good professional can take a depressed

customer who is embarrassed by their tattoo and turn the mood right around with a decent cover-up. There is a certain amount of satisfaction gained by turning a new person out, who is proud of their new tattoo. This makes a lot of friends and a growing list of clients for yourself.



This old tattoo needs a serious cover-up



The design is stenciled over the unwanted tattoo



The completed cover-up. A major improvement

Cover-up tattooing is a real artistic challenge. The customer presents a problem, and it is up to you to provide a solution. It is exciting because it keeps you sharp and flexible, and the mind is always being taxed to come up with good solutions that are both acceptable to the customer and meeting all the requirements to do the job correctly.



CHAPTER NINETEEN

Tattoo Review

Let us review all the tattooing procedures you have learned up to this point. In an organized order, go over a mock tattoo schedule from start to finish. This will tie in all of the techniques in some sort of logical order so you can understand where they all fit.

A customer has just walked in, and just for the sake of this explanation, let's say they would like a tattoo on their upper arm. After briefly talking to them about designs and which one they will prefer, let's assume one is chosen and agreed upon. The price is understood and paid for, and the release form is signed. (See Chapter on Shop Practices). If they wish it on their left side, they would be seated in front of you with their back to the work table. If it was in the same position on the right arm, they would be turned around and be facing the table.

The topic of body positioning should be stressed here. The relationship of the customer's position in regard to your own should be considered beforehand. One inch either way can really slow you down and make your work awkward. Once the customer is sitting, move yourself around to find a comfortable and steady position to work from.

In conjunction with the Chapter on "Sterile Techniques," clean your hands thoroughly as described. Take a paper towel and place it on the table. Place a clean ink cap holder on the towel. Remove a tongue depressor from a jar with a lid on it and lift out a liberal scoop of Carbulated Vaseline and place it on the towel (you may also use the individual packets of Vaseline if you choose, instead). Now is the time to "prep" the area on the arm that is to receive the tattoo. After the "prep" job and the skin is drying for a few minutes, so as to become tacky for the stencil, now you may remove an outliner tube and needle bar from a wrapper and put together the unit, following closely the assembly steps found in "Tube Setting." Put this unit aside and set-up a shading machine. Decide beforehand what stencil method suits you best and prepare the design stencil. Have the customer sit up straight and let the arm hang loose in a relaxed position. Properly apply the stencil in the desired position (go back and read Stencil Chapter). After it is applied and you and the customer are satisfied with its location, clean the stencil (if acetate) and dry it for filing. Take the lamp and adjust it so the light shines on the arm and works to your best advantage. Fill the cap holder (should hold at least four) with clean caps, one cap for each color anticipated and black, and carefully fill one with black tattoo ink from a sterile bottle with a pouring spout on it.

Now it is time to put on a pair of latex surgical gloves. Pick-up the outliner machine (previously tuned) and check to make sure the grip on the tube is dry for a secure hold. Engage it to the clip connecting cord. Turn the power unit on and start and stop the machine by means of a footswitch. This leaves both of your hands free to work with. Adjust the Rheostat Knob on the power unit to determine the correct machine speed for the job. It takes experience to best decide this and after a while, you will tell just by the sound of the machine. Keep it moderate and start it out slow, you can

always speed it up a little once you get started. Grasp the underside of the arm and draw the skin taut between the thumb and fingers. Dip the tip of the tube into the ink and start following the lines of the design from the bottom corner. Work upwards and to the left. Do not tip your machine back more than a 45 degree angle or the ink will run down the inside of the tube and also down the needle bar. (This is called back feeding). Remember, your machine is gravity fed and must be kept at the same angle as if you were using a pen. Be careful not to smudge the stencil print. Remove the excess ink from the skin by dabbing gently with a tissue, don't rub it. Check tip for a refill and stop the machine while dipping ink. When the outline is finished, spray the area of the outline that you have just done, and touch up any weak lines. When this is done, apply a thin coat of Vaseline.

The outliner tube should be cleaned. Rinse the tip of the tube under the faucet, remove the tube and needle bar, and place in "used" tray. Pick-up the shading machine, clip it in, ink it and commence the "shading." When this is finished, wiped and checked, do any touching up, if necessary, at this point. Clean the tattoo with green soap spray, wipe clean and apply another coat of Vaseline.

When you are finished with the black, dip the shading tube in the ultrasonic and then rinse it under the faucet. This will remove most or all of the black dye from the tube and you will be ready for the first color to be put in. Consult the chapter on Coloring and know it well. Between each color, rinse the dye out of the tube as described in that Chapter and apply a light coat of Vaseline to the skin so it is well greased. When the tattoo is finished and the customer is well pleased, bandage it up according to the "Bandage and Healing" Chapter. Make sure the customer knows about the healing process and give them a "healing" instruction brochure that you should have made up to take home with them. Stress that they have to read it to take care of the tattoo correctly. (Consult "Practices" Chapter.) This Chapter just gives the right steps in consecutive order so you will know how it is done. It is not a guide in itself, and it is your responsibility to read and totally familiarize yourself with all the information in the book also.





CHAPTER TWENTY

First Aid

As a professional tattooist, you are going to have to handle certain unpleasant situations that some customers may find themselves in. One of these areas is the weak stomached client. Every once in a while a customer gets sick and you should be prepared to deal with it. Make it a habit to have all your wastebaskets lined with plastic garbage bags just in case someone gets a stomach reaction. A quick grab for the nearest basket sure beats a disgusting mess on the floor. Besides, it could even end up on you and your equipment, so this little preparation can pay off.

Another thing to keep an eye out for is the fainters. Don't worry, this is not very common, but does happen once in a while. The warning signs are a change of skin color in the face (from flesh to white with a gray or green overcast), sweating and an uptight, rigid and tense body.

During the first five or ten minutes of the outline, don't get completely lost in your work and totally ignore the customer. Make frequent glances up at the client's face and talk with the person to see how they are doing. With this system, any problems will show up ahead of time. It's good public relations, and the tattoo business needs more of it.

If any signs show that the person is having problems, stop the tattooing and announce a little breathing break. Give them a little assurance and confidence that this reaction is quite common and will soon pass. Give them an alcohol sprayed tissue to wipe their head with. It also helps if the client puts their head between their knees for a few minutes. When people get really uptight, they stop breathing and then begin to lose consciousness which is called a fainting spell. If a client looks faint, don't let them walk around the shop without supervision. They may fall and hurt themselves. A short period just before people actually lose consciousness, they appear to be in a trance. Talk loudly to them and tell them not to fall asleep but to breath. If they really pass out, a slight slap on the cheek may bring them around. Don't get too carried away. It may be necessary to open a bottle of smelling salts or break an ammonia inhalant (aromatic carbonate of ammonia) under their nostrils to revive them. If possible, ask one of their friends to help you out. A glass of ice water is sometimes helpful. Stay with them and try to keep them talking. Explain that it will soon pass and then they will be just fine.

If fainting occurs, you should wait at least fifteen to twenty minutes before beginning again, when their skin color has returned to normal, there is no more profuse sweating, they are relaxed and are breathing regularly and normally.

When you begin again, do so slowly at first and keep up a good conversation. As a rule, fainters are usually getting their first tattoo. Why do they faint? Maybe they didn't eat anything all day or it may be a reaction to the sight of blood. In all likelihood though, they probably have really psyched themselves out to expect super intense pain and who knows what else, and when they had begun to actually feel the needles at work and realized it wasn't that bad after all, they begin to relax, causing the blood

to go from a tight hose to a loose one and they collapse from a blood rush. They also may have had some sort of conflict about getting a tattoo and are reacting to having crossed over the final line with no turning back. They will survive and make it through. You have to help them and they also need to hear your support and confidence.

Drunks and Other Considerations

Unless you are into self-punishment and frustration, please don't tattoo drunk customers. It is all right if someone has had one or two beers, but if they can hardly stand up and are endlessly babbling on, you will have to firmly and politely inform them that you will do their tattoo at another time and they have to quietly leave. End of discussion. Don't stand there arguing with them as to whether they are sober or not. The truth of the matter is that you just cannot do a decent tattoo on a drunk person. This holds true also for people that are on drugs and pill abusers. If people won't respect you and your work, come in bombed or drugged out expecting you to put up with obnoxious behavior, just guide them to the door and walk them out. Even better is to stop them at the door before they even enter, if their situation is that plain to you.

You should also absolutely refuse to tattoo people with obvious signs of sickness or disease such as hepatitis or yellow jaundice. The tell tale signs of people with this is that the white of their eyes are yellowed and their skin has an unnatural yellow-like sultan look to it. Tell them that their money would be more wisely spent seeing a doctor. You cannot afford to expose yourself, your family, other reliable customers, your shop and equipment to diseases. Their blood is contaminated and their bodies are in no condition to have the extra burden of healing a tattoo. Quite often you will have to work on people who bleed profusely. This is really difficult because the ink is being washed out almost as fast as it is going in and can be really frustrating. Just get through it the best you can, they may have to return after healing for a touch-up. Advise them to avoid drinking alcohol and eat large quantities of Jello for several days before returning. Jello is a source of Vitamin K, which is an excellent blood coagulant.

It is wise to have handy the local ambulance phone number, just in case of the rare occasions that may be beyond your help, such as epileptic seizures, etc.

As a professional tattooist, part of your role is to help people make it through the ordeal. For some, it is their personal Independence Day, and for some, it could be a great celebration for some reason or other. If a person is having a rough time dealing with it, you should help them through it without putting them down or getting them nervous because you think they are wasting your precious time. If you are going to do a tattoo on someone, make sure you are going to give it your full attention and give it and the person whatever time they require.



CHAPTER TWENTY-ONE

Bandages

After finishing a tattoo, it is your responsibility to prevent it from getting infected, at least during the first few hours until the body can close up all the holes that were just put into it. While tattooing, you have plenty of time to talk to the customer about after care and how they ought to treat the tattoo. Later, you can give them a care sheet to take home with them. A big poster outlining the healing process and the care of a new tattoo, located near the work chair, also acts as a double reminder. This is a very important step because how good a tattoo looks afterwards depends upon the healing, and it can either make or break you.

Right after finishing, you should clean the whole tattoo area with a green soap spray and a paper towel. Next, spray alcohol directly on that tattoo and place a paper towel right over it. (The towel is now totally absorbed with the alcohol.) Apply pressure on the towel with your hand and hold it on there for a few seconds before you wipe it off. (A word of warning here: This procedure really smarts, so you might want to hold the customer down with your free hand while you are wiping with the alcohol.) As you are wiping, clean an area a little larger than the actual tattoo, which will make a clean space for tape to stick onto later.

The next step is to apply a nice thin even coat of Bacitracin on the cleaned tattoo with a tongue depressor. Do not use Vaseline on a fresh tattoo. Bacitracin ointment should be used. A fresh tattoo will have a fever under it and feel hot to the touch. Cold water several times a day the first two days will take care of this. Explain this to customers and advise them to use Bacitracin after showering.

Some people use Bacitracin (a triple antibiotic ointment) on a fresh tattoo. You should know though, that certain customers may have a bad allergic reaction to the antibiotic in Bacitracin. Since you have no way of knowing who does or who doesn't, you should be careful with its use. Antibiotics should be avoided as preventatives. If you have a clean shop and use sterile equipment, there is no reason why any tattoo should become infected. When an infection does take place (if ever), it is usually because of the customer's neglect of instructions to properly care for it. They should not use antibiotics on their own. Instead, they should see a medical doctor who will prescribe one for them.

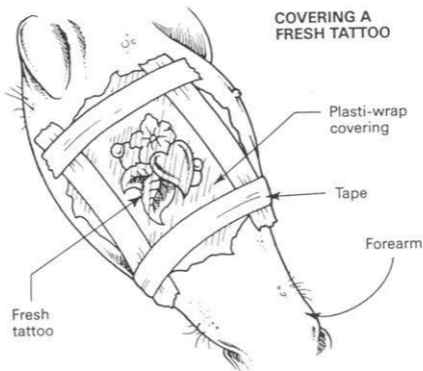
Bandages

Many people use different materials as bandage coverings. Some use a non-stick bandage like a Telfa-pad or Release, (a non-stick dressing). For larger work, a Pamper makes a great covering. They don't dry into a tattoo and at the same time, provide a padded cushion. You can even halve or quarter them for smaller pieces and secure with Dermalite tape.

The most popular covering though, is Handi-Wrap. The reason for this is that people who have just received a tattoo want to show it off. If they can't see through the covering, they are going to open up the bandage so they can sneak a peek. Then the bandage gets handled too much and becomes dirty. Handi-Wrap is ideal because some other brands are a little too sticky to work with.

The trouble with using gauze is that in a couple of hours when the customer begins to remove their bandage, the cloth sticks to the clotting scab. When they pull it off, it starts the tattoo to bleed all over again and they have an unwanted mess. It will also pull out more ink and weaken the tattoo design. Handi-Wrap is great in that it just slides off the tattoo with no hang-ups.

As soon as you are done wiping the tattoo clean and have wiped a big enough area for the tape to stick, and you've just covered the tattoo with some Bacitracin, take the Handi-Wrap and carefully pull out a nice strip and throw it away. (This step is to make sure you have a clean piece.) Tear out another strip big enough to cover-up the entire tattoo with, about one inch extra on all sides. Tape it securely with Dermalite tape (a hypoallergenic paper tape that sticks great to skin, but can be taken off without too much pain).



When all this is done, the customer is ready to go home. If it bleeds a little on the way, tell them that this is all right and to keep it wiped up and clean until the bandage comes off.

The Customer and the Fresh Tattoo

The customer should remove the bandage in about two hours and rinse it in cold water to remove whatever blood there is and gently blot it dry. Two hours is about the average time it takes for blood to start clotting and scabbing. If it has not clotted by that time, the cold water will close up the pores in the skin and hold the rest of the ink in. It is the cleaning process while it is healing that makes a tattoo look nice and sharp. Tell them to rinse it off with their hands. A washcloth or towel could really feel rough and it might start it to bleed, which you do not want to happen. It should then be blotted dry with a clean paper towel. No wiping or scrubbing, just blotting. The towel should be a white one, unscented and have no designs on it. Some people are allergic to the scent and dye in the towels. They should use the smooth side of the paper towel to keep from irritating it as little as possible. Fresh tattoos are very sensitive. When it is rinsed off, apply a little Bacitracin to keep it from drying out too much. (If it is a black tattoo, a little rub of alcohol on it first, before the ointment, will keep it clean and sharp. Black tattoos heal faster than colored ones.) The ointment should then be blotted dry after a fifteen minute wait. Again, use the smooth side of a white unscented paper towel. The tattoo will absorb as much ointment as it needs in that amount of time. If they don't blot it dry, the excess ointment will collect unwanted bacteria. Blotting up a tattoo means blotting it dry to the touch. If you feel your hand over it and it slides across, there is too much ointment on it. If it is rough or crusty, the ointment was not on long enough.

Don't keep it covered with a bandage. A tattoo is on the skin and it must be exposed to air to breathe, which speeds up healing. The only exception is when straps or certain articles of clothing rub against it. Tight clothing should be avoided and clean loose fitting clothes should be worn until the tattoo heals.

The ointment and blotting treatments are to be applied four times a day. Make sure that this is understood. As a tattoo heals, it feels smooth and velvety. A tattoo has healed when a scab falls off by itself. A black tattoo heals in about four days and a colored one takes about a full week.

Water is the worst thing for a healing tattoo to be exposed to. When in the shower, the customer should cover it up with a good layer of ointment. This will act as a protective barrier. Don't get water on it until the scab falls off. Try not to put it directly under the water and work around it. When a scab gets too soaked with water, it swells up and peels off too early, messing things up. Drill these procedures into the customer. It only takes a few days of good care and they will get a great looking tattoo, if done right. When not done right, it will look faded, weak and not very bright. It will be worth it to them to take good care of it, because they are going to have the tattoo for the rest of their life.

Do not pick any scabs, no matter how tempting. Let them fall off naturally. Even if it is just hanging there, do not touch it. The part that is not hanging there is still healing and if picked, it will bleed, making a faded spot that will stand out. They have got to take it easy on a fresh tattoo.

New tattoos itch while they are healing. Hitting the tattoo with a quick slap will usually stop the itching. Sometimes wiping it with a little rubbing alcohol will relieve it.

It must be explained that a new tattoo will look flaky and gross looking for the first week. After the scab falls off, there is going to be a white scaly layer on top of the tattoo. This is dead skin and it will peel off in a couple of days. Sometimes by rubbing a little Vitamin E on it, will improve its looks.

Sunlight is not too great for a tattoo and exposure should be avoided for a few months, if possible. You want the color in it to remain bright and sunlight will bleach it out. Black tattoos are all right in the sun, but colored ones are a little more touchy and need to be babied. A high number sunscreen may help, but some lotions containing PABA may aggravate the tattoo. Color tattoos must settle in, and the sun just helps to age them very quickly.

Bandaging Summary

1. After tattooing, clean whole area with green soap and white paper towel.
2. Spray it with alcohol and hold a paper towel on it.
3. Apply film of Bacitracin ointment.
4. Cover with bandage or Handi-Wrap and securely tape it on.

General Healing Instructions

1. Bandage should stay on for at least two hours.
2. Remove bandage, rinse gently with cold water and blot dry.
3. Apply Bacitracin ointment four times a day and blot out the excess.
4. Keep tattoo fresh and open to the air. Do not bandage.
5. For the first week, avoid swimming or long soaking in water.
6. For the first month, avoid too much exposure to the sun.
7. Do not pick or scratch scabs.
8. Itching is relieved by slapping or alcohol.
9. Keep tattoo covered with clean loose clothing.



PART VI
THE SHOP



CHAPTER TWENTY-TWO

The Tattoo Studio

As we said earlier, it's likely you will be starting out at home. Chances are, you will be most secure and have more confidence in your home setting, and develop a reluctance to move on. There are a lot of advantages working at home. If you are employed elsewhere, the overhead, after the initial outlay for equipment, is almost nil and whatever you take in, is spending money. If you are happy at home, you are ahead of the game. By using discretion and keeping a low profile, you may never run afoul of the zoning laws that exist in most communities. There are many instances of "kitchen tattooists" who do very well in their spare time and couldn't be moved by flood or flame. If you're a family person, keep equipment locked up, tattoo machines aren't toys.

Others, like the "hear today, gone tomorrow" call of the open road type, they set-up shop in a van and can put the show on wheels at the drop of a hat. You have the choice of setting your own pace and schedule, stopping off wherever crowds gather for any number of reasons, or throwing in with a carnival or travelling show. Not everyone is thrilled with such a free-spirited life, but it does suit some folks. You may want to try it to see if that's where you fit in.

Having a nice shop uptown, downtown or across the tracks is also hard to beat. It provides an atmosphere of stability that encourages people to put their faith and trust in you.

Space and location have a large bearing on the amount of rent you'll be paying. It's nice to have a place with some elbow room. Some shops are too small to change your mind in. If you're stuck with an arrangement like that, you can have a workshop at home and do sterilizing and many other chores there, as well. You'll require a small toolbox for transporting items back and forth. It is not convenient, but it can be done in a pinch. Former barber shops make good tattoo studios. If you keep your eye open, you might find one that requires very little renovation.

You can also go on housecalls, that is, you go to the customer's house instead of them going to you. House calls can bring you top dollar. But, you'll have to assemble some sort of complete travelling kit for this. Try to keep them outside off regular business hours.

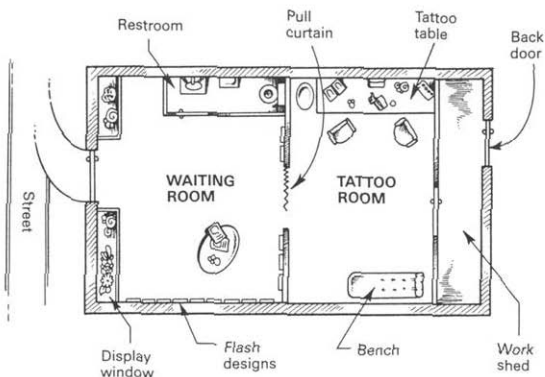
The ideal arrangement for a studio is to have it partitioned into three rooms.

The room adjacent to the street entrance will be the waiting room and should be the largest of the three. Have some chairs there, perhaps a coffee table and some magazines, a deck of cards or a chess board.

All your flash will be displayed on the walls of this room. If they're in frames, they can be either hung up or screwed fast to the wall. It's nice to have a place with high ceilings, but they're becoming hard to find.

At the rear of the waiting room, or off to the side, there should be a fully equipped, clean, working restroom.

A door leading off the waiting room gives access to the booth where the equipment and table is set-up and where the actual tattooing is done. If you have windows in the wall so that customers can watch you work, have curtains on the inside that can be drawn as women usually prefer to have their tattoos done privately.



A door at the back of the tattoo booth gives way to the workshop. This is where the tools are kept, and the equipment maintained. Here, there should be a sturdy workbench with a good vise with replaceable three or four inch jaws. Get the best quality vise you can afford, you'll be glad you did later.

Keep the soldering outfit and all the tools here. The variety and quantity of tools required depends upon whether you buy parts, etc., from tattoo supply houses or make your own. This should be kept locked when not in use.

To really form the best conclusion about shop layout, it's a good idea to visit a few and see how all the tattooists set-up their own. Everyone sets up a little different. Once you've learned the basics, it's up to experience and personal preference to determine what suits you best.

CHAPTER TWENTY-THREE

Prices and Selling

What will you charge for a tattoo and what will it work out per hour? Walk into any legitimate tattoo shop and you will notice that the price of a good tattoo is not generally cheap. That is, not inexpensive. When considering the price of equipment, today's inflation, the skill involved, and the cost of overhead and floor space, tattoos are not exactly a bad deal either. The fact is that they are a permanent artwork investment that will go everywhere the customer goes. Other than the free tattoos on friends in the beginning in trade for advertisement, the prices of your work should be consistent. Don't start off underselling yourself and then later raise your prices. People will come back years later and expect the same low prices. Try to set a standard as soon as possible. One way to do this is to visit the good tattooists in your area, and take a look at what they are charging. Compare different tattoo sizes and try to get a pricing guide down pat in your head. This can be used as a reference for your own prices. Don't try to undersell the local established tattooists in your area, because besides being unfair to them, you don't want to cause an uproar as the new kid on the block. It can cost you many friends.

Also, it's not too good to quote prices over the phone. Most people that call are just curious, anyway. Some are shopping for the cheapest price. Just tell them to come down and visit you and that it will be worth the trip.

Another way of pricing, which is very popular, is called the A-B-C method. The basics to this are quite simple. Make up a card or poster to hang over the design sheets with the following information on it. Let's say you have figured out that your basic commercial designs come in three size ranges. Small work is \$25.00. These you list as "A" designs. Medium size work is \$35.00 and is listed as "B" designs. Larger pieces are \$50.00 and they will be put down as "C" designs. Make this large and plain on the poster, the price and letter designations. Now all that is left to do is to place the appropriate letter sticker on your corresponding flash sheet designs. On one sheet, for example, you will have some that have an "A" next to them, some with a "B" or a "C," depending upon their size. This way, prices don't clutter up your flash sheets, and it gives the customer a chance to decide what they can afford to work around their pocketbook. An alternative method is to have designs illustrated in books. This is useful if you lack sufficient wall space.

Another method to use is called the grid system pricing guide. This is where a grid is made up on a piece of paper or acetate in one inch square increments. The idea here is to cover the tattoo with the grid and see how many square inches it encompasses. You would charge by the square inch of tattoo space. You will have to determine what you want to charge per square inch. This can save you time, and if you decide on different prices, all you have to do is charge more or less per square inch instead of changing all the flash sheets.

These are just a few examples of pricing and it is probable that the tattooist will find a way of pricing that is both fair to the customer and profitable to himself. Always remember though, don't be greedy.

Selling Work

Another aspect of tattooing which is linked to pricing is the possibility of drumming up more business. This is self-promotion, and there are endless ways to go about doing it. One way is, as soon as you open up a shop, call the local newspaper and try to get them to do a local story on you. A lot of people will read this that otherwise would not have any other way of knowing about your shop. Advertising yourself always helps and to place an advertisement for tattooing, promoting yourself, will really get you some business. An advertisement in any related type magazine is also good. Business cards are a must to hand out to people and it is a tradition to design them with clever drawings and original ideas. T-shirts, buttons and bandanas with your shop name log silk-screened on them are another way to go. They are like walking billboards, and the price to have them printed up is marginal compared to the business that you will get. Many tattooists photograph all the tattoos that they have done (while on the customer). *When a collection of them starts to pile up, arrange them in books or on the walls and they become a great portfolio, showing what you are capable of doing. Proof of your work really puts the odds in your favor when a customer is undecided about actually getting a tattoo.* Following these guidelines, it shouldn't be hard to get more work, and a little imagination in promoting yourself, really adds up to more business. Tattooing advertises itself by word of mouth, and aside from the cost of business cards and some advertising in the yellow pages, they advertise themselves. You can sell the same tattoo over and over again, but to the customers, they're always new.

A Word of Advice

Whether we like it or not, the tattooing industry has a lot of jealousy within its ranks. There is countless reasons for this and some of them will give you the impression that a certain individual should have his head checked. His attitude won't really register with you until you have been into tattooing a short period of time. Some people will think they own a whole town, city or county and tell you there is no room for another artist in that area. In some cases there isn't enough business for only one, but if he is established and doing good work, he really has nothing to worry about, but you can't tell him that. He already has all the answers. Just be very selective here, you pick your location. Never knock your competition even though he might be giving you the bad mouth all the time. It only makes proposed customers curious and they will check it out, believe me. Some tattooists get along fine together, they sort of run in a click, and if you fit into that particular click and are accepted, you're all set.

One thing in this business that will get you accepted quickly is to turn out exceptional tattoo work. At this point, your competition knows that you're better than he thought and his attitude towards you might even change, especially if he figures he can learn something from you after seeing some of the super work you're turning out. Don't brag about your work, you get a reputation in the tattoo business from other artists, not the customer. Strange as it seems, this is true. Always do your best, conduct yourself in a professional manner and above all, be a nice guy. Public relations is a very important part of tattooing, it has a lot to do with how much you have in your pocket at the end of the week.

CHAPTER TWENTY-FOUR

Business Practices

Before even starting in the tattooing business, the material in this chapter should be given some serious thought. For example, how will you ever start tattooing if perhaps it is against the law in your community? Since it is a tattooing career that you wish to make it in, it would be smart to make sure no authorities will visit you and permanently shut you down. Whether doing business at home or at a shop (which will be the eventual goal), certain local and state ordinances should be looked into in depth.

The first step would be for you to investigate into the local laws at City Hall to see whether there are any conflicts with what you plan to do, and meet what they require on this subject. This also should involve a visit to the Sheriff's Department to check on other requirements and law stipulations. A trip there should be on your schedule regardless, just to clear things up like zoning and businesses.

Another important place to go see would be the Health Department to find out what they require. Be prepared to answer their questions like a pro. Knowing all the information in this book down pat would be an excellent start, and you should practice all the information in this book too, like a professional. Meet all the regulations that are required of you. You want to set up a respectable and permanent business and not be a gypsy outlaw. State, local and health laws vary greatly, so be sure to check them out and any other establishments that they point you to.

There are some other things to consider also, about other general business practices.

Before diving right into a shop, you better know exactly what makes up a legal shop and be prepared to meet those requirements. Also, some knowledge on real estate would help, so you don't get stuck paying off a shop you can't use. Look up zoning laws to be sure you can tattoo in the area. Once the shop is located and the deal is going through, it is wise to have business insurance on your shop and your equipment. In case of fire, theft or accident, you will be covered. If you are not covered, it could cost you the shop. An insurance policy is a small price to pay to be protected today.

Just in case you don't think you can handle all this on your own, employ the services of a good local attorney. He will always know people in the right places and whom to contact for the information you require. Let him do the leg work, after all, that's what you will be paying him for and he won't get the run around as you might get in some instances.

Business Procedures

Always keep a receipt for all of the work that you do. Even for the smallest tattoo or whatever services you render. Remember that you are self-employed and you have to pay taxes. A course on bookkeeping would be practical in addition, just to keep your head on straight. There are a lot of deductions a business person can legally make, and one book on small business and another on tax information (from the I.R.S.) is a must. You have to know what you are doing here. It is not as complicated as you might think, but it is absolutely necessary to understand these things if you are going to survive as a self-employed business person.

One more thought about insurance. Today is the day of the lawsuit. People are very excited about getting a tattoo and will brag about them and pay large sums of money for them. But if something ever goes wrong, these same people will not give it a second thought to turn around and sue you right out of business. Some type of thought should be given to protect yourself from this ever happening. This type of protection is called the "trade release form." This is a legally binding piece of paper between you and your customer, waiving any kind of responsibility on your part for damages or lawsuits of any kind after they leave the shop. It must be signed before you commence tattooing. An example of such a sheet is included at the end of this chapter. It should not be directly copied, it is just an example. Since it is such a great legal document, it is up to the tattooist and his lawyer to make one up. The price paid for this paper is worth it. Once made up, it will last you forever. Just have them copied or printed in quantities. Basically, the release form will cover topics like age and physical requirements, it will release you from liability from lawsuits and damages after the visit and anything else you and your lawyer can think up to protect yourself and keep yourself covered at all times. If a person takes one step into your shop and trips and falls and chips his teeth, you just might be liable (this even before the signing of the release). A sign "Enter at your own risk" in front of the store is at least some kind of coverage releasing you from a possible lawsuit. This kind of "insurance" is a must to have, but remember, it still does not release you from your responsibility. You owe it to everyone to do your best. You must follow all the procedures in this book such as bandages and sterilization techniques and it is your responsibility to see to it that you perform them.

Along this line of thought is another form of policy called the "care sheet." This is made up by you and handed to every customer after they receive a tattoo. Just you telling them about the after care and a big poster in front of the chair outlining the steps is not enough. (Which you ought to have anyway.) You must make up a sheet with each step printed on it explaining the care of a tattoo and the customer's responsibility in taking care of it. This is important because the healing is critical in the quality of the tattoo and the health of the customer. Every precaution should be taken to ensure that they do this. An example of a Care Sheet can also be found in the end of the Chapter on Bandages. Study it carefully, and add anything else that you may feel is important. I certainly would not subtract from the information though. It is advisable to post a notice in a prominent area of the shop stating that you don't tattoo people who are afflicted with sugar diabetes (they are prone to infection and heal poorly, or not at all). It also won't hurt to include hemophiliacs on the same notice. Such a notice will provide you with some more legal protection.

Being in business for yourself has great benefits. One of these is that you are your own boss and you are responsible for making the money. In other words, you are writing your own check. But, just like an hourly wage, in the business world, time is money and time means money. You never want to be in a position where you are unnecessarily holding yourself up or finding yourself doing things twice. This costs you money or will keep you from making more money, and believe me, this is not professional.

In the tattooing trade, payment for tattoos is in cash and in advance. It is hard to take back a tattoo if the customer won't pay. Same deal for checks. Accept only cash in advance – non-refundable. A sign up front, "no checks," also helps. Also, if you do work by appointment, deposits are required to secure it. The appointment goes into an Appointment Book the minute a deposit is received. This deposit is non-refundable if they do not show up. Usually, a twenty-four cancel notice is required and then deposits are returned. The deposit for an appointment can be taken off the top of the tattoo price. Sometimes a deposit is necessary in the case of special design requests. This is to cover the time involved in the design or the extra to pay an artist to draw one up special. When doing a large piece that requires more than one sitting, always get fifty percent up front and divide the balance up between the following sittings.

Sometimes people will surprise you with really outrageous requests for tattoo work. Usually in weird places that are out of the ordinary. Once again, payment in advance, and for appointments. If you don't feel comfortable tattooing, let's say, genitals, for instance, set your price extremely high and out of range. If the customer agrees to pay it, well do it. A private booth or section may be essential when doing bashful customers or women. Some people do not want to be stared at, and you should honor all requests and do your best to please the customer at all times. Never tattoo minors, even when they have parental approval. It is just bad policy and stay away from it. It is also not too smart to tattoo certain exposed body parts. Reconsult chapter on "Skin" for more wisdom on this.

Do not tattoo people who for whatever reason are not capable of making a free informed choice in having a tattoo or not, such as the mentally handicapped. Don't tattoo minors even with written permission, it isn't very professional. Tattooists who tattoo small children need counselling and help.

Don't tattoo pregnant or nursing women. It's also not a good idea to tattoo vulgar words or dirty pictures. Tattooing should be an honorable art, not a barbaric ritual. A professional attitude draws a line. Never compromise or cross over it. Business is business and don't deviate from the rules. Names and biker club insignias are a definite no no. The only exception is if you have undeniable proof of biker club membership. Remember, these fellows are very proud of their designs and guard them rather jealously. You are responsible for indiscrete tattooing and will have to answer for it.

It is best not to tattoo in the window of your shop. Regardless of what you may think, there are people out there who consider tattooing obscene. If you flaunt your wares in front of their face, they will remember you for the wrong reasons. It's not good to attract bad attention to yourself.

Don't exhibit reptiles, white rats, shrunken heads, skeletons, etc., in your studio as come-ons. The reaction of most people to such props are negative and they are usually repulsed. What you intended as a come-on may be a turn-off. Tattooing can stand on its own merit and such window dressing announces to the world that you may be

involved in some strange sect besides tattooing. That hardly inspires confidence in the people you seek to do business with.

Establish a regular pattern of working hours. During your slow periods, you'll find many ways to occupy your time. If and when you have a day when you're tired, distraught or ill, go to bed or go fishing, tomorrow's another day.

On a busy day, work customers on a rotation basis. First in, first out. Don't offend anyone by taking on someone else before their turn comes.

You'll find it better to do large pieces by appointment outside your regular office hours. Some artists work exclusively by appointment, but they are usually well known and established. It's not a good idea to work more than two or three hours on a large tattoo anyway, it is advisable to spread the work over several or more sittings. Don't touch it again until the previous work is healed.

You will be approached by people you would prefer not doing business with. There is always one out of ten that are just plain trouble. Don't be arrogant with them, just explain in a firm way that if you're not accepting their money, you don't owe them anything.

From time to time, you might be approached by the media looking for what they like to call a human interest story. While it may be in your interest to cooperate with them, don't forget that publicity is a double-edged sword. Once they get their foot in the door, they can write it the way they see it. There are those who swear that publicity promotes business, but it would be hard to prove that those customers wouldn't eventually have found their way to your doorstep anyway. Give it your best thoughts, because in the end, it's a decision you'll have to make when you are confronted with it.

Spend some time building good public relations in your community, having friends on your side always helps.

A question that comes up is one about tattoo removal. Tattooists all have their special removal techniques, but you should be advised to stay clear of them all. The best answer is to have the name and address of a reputable dermatologist who specializes in tattoo removal, and send the client there. Your thing should be putting them on correctly. Let someone else's thing be in removing them correctly.



Standard Release Form

I am at least 18 years old. I don't have a heart condition. I don't have epilepsy. I haven't had hepatitis within the last year. I'm not a hemophiliac (bleeder). I'm not under the influence of drugs or alcohol.

To my knowledge, I don't have any physical, mental, or medical impairment or disability which might affect my well-being as a direct or indirect result of my decision to have any tattoo-related work done at this time.

I agree to follow all instructions concerning the care of my tattoo while it is healing. I agree that any touch-up work needed, due to my own negligence, will be done at my own expense. I understand that if my skin color is dark, the colors will not appear as bright as they do on light skin.

Being of sound mind and body, I hereby release any and all persons representing _____, (also known as _____) from all responsibility. I accept any and all responsibility myself for any consequences that might stem from my decision to have any tattoo-related work done by _____.

I agree not to sue _____ in connection with any and all damages, claims, demands, rights, and causes of action of whatever kind or nature, based upon injuries or property damage to, or death of myself or any other persons arising from my decision to have tattoo-related work done at this time, whether or not caused by any negligence of _____.

I agree for myself, my heirs, assigns, and legal representatives to hold _____ harmless from all damages, actions, causes of action, claim judgements, costs of litigation, attorney's fees, and all other costs and expenses which might arise from my decision to have any tattoo-related work done by _____.

I agree to pay for any and all damages and injuries to any and all persons and property belonging to _____, or any other person to whom _____ may become liable contractually or by operation of law, caused by, or resulting from my decision to have any tattoo-related work done by _____.

I agree to leave the premises of _____, or any other establishment where _____ is engaged in business, promptly upon request, for any reason whatsoever, by any agent or employee of _____.

I agree that these waivers also pertain to and are designed to protect any and all establishments where _____ conducts business.

I represent and warrant to _____ that the following information is true and correct.

Please Print

Name: _____ / /
Last First Initial Age Date

Address: _____
Street City State Zip Phone

I have read and understood each of the above paragraphs.

Tattoo: _____

Signature: _____

Location: _____

Epilogue

Tattooing today has taken on a whole new meaning than it has, let's say, just ten years ago. It's growing by leaps and bounds, and will continue to grow. Statistics say that in the United States, better than one out of every ten persons has a tattoo. This breaks down to one out of every five men and one out of every fifteen women. With the population rising as it is now, more people than ever are going to want to be tattooed. Somebody has to put those tattoos on. There are a lot of great tattooists out there, and there is room for more. Let's hope this book meets its goal by turning you out as one of them. If you read, study and practice the things outlined in this book, there is absolutely no reason why you can't be a good tattoo artist. If you are real serious, you must be devoted to the art. After all, what you get out of it depends on what you put into it.

About the Author

Huck Spaulding started tattooing in 1949 at the age of 21. He purchased his first tattoo machine from Owen Jensen who operated a tattoo supply business in Los Angeles, California, at that time. As fate would have it, six years later in 1955, Huck, purchased the entire business from Jensen, upon his retirement. During this same year, Huck, took on Paul Rogers as his partner in tattooing. Rogers had vast knowledge in the field of tattooing which he passed on to Huck, during the following five years. 1955 seemed to be the year that everything in Huck Spaulding's life changed for the better. Spaulding & Rogers Mfg. became a reality and in later years, developed into the largest manufacturer of tattooing equipment in the world. After more than 20 years as a full time tattooist, Huck, retired and devoted his entire time to the invention and development of tattooing equipment. Now as president of the corporation with up to 30 employees on the payroll, Huck, is able to pursue his favorite hobby of big game hunting all over the world. He has completed 12 African Safaris and holds the honor of having taken the African Big Four, which are Elephant, Leopard, Lion and Cape Buffalo. All are considered the most dangerous game in Africa. He has over 70 entries in the Safari Club International record book and several of these are World records.