

THE
ART OF DRAWING
AND
ENGRAVING ON WOOD
FROM THE TREE TO THE PRESS

G. W. MARX

FRONTISPIECE.



SUNSET.

(Drawn by Birket Foster.)

The Art of
DRAWING AND ENGRAVING
ON WOOD.

BY
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ILLUSTRATED.

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PREFACE.



THE Author of this book has been influenced by the fact that up to the present time no known work of any practical utility relating to Drawing and Engraving on Wood has been published; he has therefore made it his study to place before his readers an educational work which deals strictly with the subject of its title, and is the outcome of twenty-five years' practical experience, to explain as clearly and briefly as possible to the student what he will require in his operations, and the *modus operandi*.

It is also his intention to treat on the subject of Drawing on Wood, so that beginners who are already artistically inclined may overcome the simple mystery of putting their own drawings down, which is certainly of the greatest advantage to the would-be engraver, as

the knowledge of form, light and shade, intermediate colour, character, and direction of lining is already possessed.

The production and manufacture of the engravers' blocks will also form an item in the present work.

Where it is deemed necessary, illustrations will be given, as more clearly explaining the different methods of engraving, where perhaps written matter would fail in conveying the correct ideas, or leave the student in doubt, and there should be no doubt, ever, in the mind of a good engraver.

Without indulging in extraneous or superfluous matter, or seeking literary merit, the Author leaves this "*Multum in Parvo*" to the judgment and verdict of his readers.

2, CHANCERY LANE, LONDON, E.C., 1881.





DRAWING AND ENGRAVING ON WOOD.



IN introducing the Art of Wood Engraving to those who desire to cultivate a branch of the fine arts as a profession or a source of amusement, I cannot do better than refer them to the almost numberless illustrated papers, periodicals, and magazines with which our news and literary market abounds.

Every stirring event, every novel and poem, every invention, and I might almost go so far as to say every article of beauty, daily use, and consumption, becomes the subject of illustration ; and all these pictures, be they animate or inanimate, are invariably engraved on wood.

In a little work of this kind it is not necessary to go into the historical details of the origin and development of Wood Engraving ; suffice to say, the art was practised

by the Chinese long before the Christian Era. During the dark and middle ages it was, with most of the arts, entirely neglected, until it again sprang into existence, under the genius of Albert Durer, toward the end of the fifteenth century, since which time, with some fluctuations, it has gradually risen to its present eminence and rank among the fine arts.

Many of our leading statesmen and philanthropists have advocated and encouraged suitable employments for women. I offer this as one of the branches of art labour in which ladies may engage and practise with every probability of success and fair remuneration.

More than half a century ago we find the name of Mary Byfield as engraver of the majority of the illustrations to the works of Shakespeare, which were published by Sherwood and Jones in 1825. This lady's productions were, in all respects, equal to those of her two compeers, J. Byfield and Mason.

Such being the case, then, how much more likely in the present time, when every facility for instruction and employment offer themselves.

Engraving on wood, as an amusement, is not only a light, pretty, and artistic accomplishment, but in case of need becomes a source of remunerative occupation, as the instance of several ladies at the present time earning from £3 to £10 per week justifies me in remarking.

In this treatise, I feel I am supplying a want long felt by many who are desirous of educating themselves in this art, which is daily on the increase—the want of a clear elementary instructor, a perfect understanding between professor and pupil, an easy reference, and a correct guide.

Drawing, in connection with engraving, is beneficial, but not absolutely necessary, as it seldom occurs that the artist engraves his (or her) own drawings, or that the engravers draw theirs, but, without doubt, those with a knowledge or taste for drawing make the best artistic engravers. (*See drawing on wood, page 24.*)

My intention is to come to my task without ceremony, by describing the tools and illustrating their various uses, in as many engravings as will be requisite for the guidance of beginners, avoiding all technical terms that may not be readily understood by the most uninitiated.

In the first place, there should be about seventeen gravers. These are the cutting tools, and are of various shapes and sizes; they are made from the finest-tempered steel, are about $3\frac{1}{2}$ inches in length, and fitted into handles of ebony or commoner wood, one side of which is flat; this is to allow of the free passage of the tool over a large surface, erroneously supposed by some authors to be for the purpose of resting the tool steadily when set down.

Tools are divided into classes, such as lozenges, tints, scorpers, squares, and flat.



FIG. 1.

Fig. 1, THE GRAVER.—A is the handle, B is the point, or cutting part, C the face, D the belly.

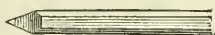


FIG. 2.

Fig. 2 is the finest graver, and is called a lozenge, is used for outlining the drawing, previous to shading with other tools, or clearing away with the scorpers. It is also used for facsimile, trees, foliage, flesh tints, and other shading of the finest character.



FIG. 3.

Fig. 3 is also a lozenge, similar to Fig. 2, but is larger, and is consequently used for bolder work of the foregoing description.



FIG. 4.

Fig. 4, the square graver, is for cutting open angular work, and is used in bold facsimile, taking out corner pieces, and assists materially the scorpers in clearing.



FIG. 5.



FIG. 6.

Figs. 5 and 6 are the round-bellied lozenges, and are also for facsimile, the difference being that they cut with a round commencement instead of pointed, and are principally used for foliage, ground,

and opening or spreading flesh, and other tints. These tools are also used (at discretion) in clearing.



FIG. 7.



FIG. 8.



FIG. 9.



FIG. 10.



FIG. 11.



FIG. 12.

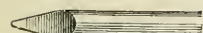


FIG. 13.



FIG. 14.

Figs. 7 to 14 are the various tint tools, which are known by numbers commencing at No. 1 (Fig. 7), which is the finest, consequently the darkest, and gradually broadening to No. 8 (Fig. 14), which cuts the lightest shade; the intermediate numbers, the various gradations from black (which is the wood untouched) to white (which is the wood all taken away). These tools are invariably used for skies, still waters, architecture, and principally for machinery, it seldom being the case that the lozenges are called into requisition

in this latter branch. The largest tint tools are used as small scorpers.

It may be as well to mention here that the word tint means colour, and that skies are tints cut horizontally.

Architecture is generally cut perpendicularly, and the direction of lines for other tinted subjects must be decided by reference to other engravings or the judgment and taste of the operator.



FIG. 15.



FIG. 16.

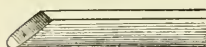


FIG. 17.



FIG. 18.

Figs. 15, 16, and 17 are called scorpers, and are used for cutting away all large white or blank spaces after outlining or engraving, so as to leave only the drawing in relief.

Fig. 18, the flat tool, is like a small chisel, and is used for lowering the edges of skies, flesh tints, and any work which has to fade into white; it is also used for trimming the engraving when finished.

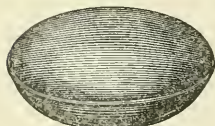


FIG. 19.

Fig. 19, the sand bag, consists of two circular pieces of leather sewn together and filled with sand, for the purpose of being steady and tolerably solid. Upon this the block is held firmly with the left hand, and turned about at pleasure.

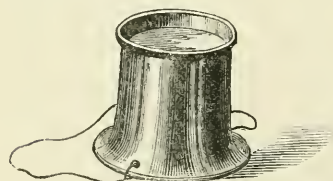


FIG. 20.

Fig. 20, the eye-glass, is for magnifying when engraving minute subjects. I should advise all beginners to avoid the use of it as long as

possible, not that I think it injurious to the sight, but simply because it only embraces a part of a drawing, and is likely (in the hands of a novice) to impair the

effect that might otherwise be obtained if a larger field were open to view, and, again, when once encouraged, becomes a very difficult agent to shake off.

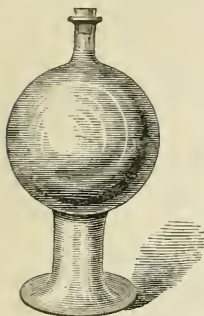


FIG. 21.

Fig. 21, the globe, is used for working at night, and is for the purpose of steadying and concentrating the light from the gas or lamp direct on to the work.

The globe must be filled with water, and should be made a pale blue by means of burning a half-penny in some nitric acid. Then add about an egg-cupful of the nitrate of copper thus produced to the water in globe. This produces a beautiful, subdued, pale blue light, which is not injurious to the sight.

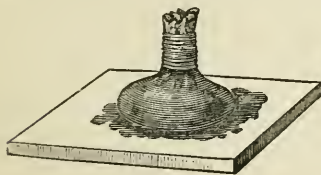


FIG. 22.

Fig. 22, the dabber and slab, for beating the ink up finely before inking the engraving when finished, for the purpose of rubbing off a proof.



FIG. 23.

Fig. 23, the burnisher, for rubbing the proof off after inking.

A supply of boxwood, proofing ink, an oil-stone, beeswax, india-paper, india-rubber, and two or three pencils complete the plant of the Wood Engraver.

The wood used for engraving on is boxwood, and should be selected of an universal bright yellowish colour. When it is marked with dark brown, black, or white spots, it is of inferior quality, and should be avoided, as perhaps the most particular part of the engraving might happen to fall upon one of these, and spoil the whole subject.

The table or bench at which the engraver sits must be firm, and sufficiently high to bring the block within easy focus of the eyes without straining or doubling the back. The light should be north, if possible.

Having described as particularly as possible the requirements of the engraver, I shall in its turn proceed to explain the method of using the several tools before mentioned.

THE END TO BE ATTAINED, AND HOW TO ATTAIN IT.

A wood engraving is a pictorial type for surface printing, with or without ordinary types, as the case may be, and conveys at a glance more effectively than any amount of written matter.

The object of engraving is to cut away all the white spaces of a drawing on the wood, so as to leave only the lines of the drawing in relief. Where a difficulty occurs with half tones, some judgment and taste are necessary as to the proper style of shading to suit the subject and produce the right effect and colours. THE PERFECTION

OF ENGRAVING ON WOOD IS TO REPRODUCE TO EXACTNESS THE ORIGINAL DRAWING FOR PRINTING FROM. Of course this is only gained by practice and experience.

Before commencing work be careful to see that all the tools are perfectly sharp by trying them on a spare piece of wood ; if not, sharpen them by holding them face (C, Fig. 1) downward flatly on the oil-stone, and rub them firmly backward and forward until they are so. Always be careful to keep the face of the tool perfectly flat on the stone.

From the Tree to the Block Manufacturer.

Many descriptions of wood have been tried for engraving, and resulted in failure, especially as far as regards anything of a moderately fine character is concerned. For large work, such as are termed posters, for advertising purposes on hoardings, &c., sycamore and pine are principally used.

Sometimes one of these pictures alone comprise as many as fifty or sixty sheets of a large-sized paper called double demy ; and the method of producing these blocks is called cutting : knives, V tools, and gouges, instead of gravers, are used, and the long grain of the wood is the printing surface of these blocks ; whereas that which is accepted as wood engraving proper is always on the end grain of boxwood. This being the

only wood upon which a good engraving can be produced, and the engraver's staple material, it deserves rather more than a passing notice.

Turkey has hitherto borne the character of being the finest boxwood-producing country in the world, though many good samples from the Crimea and the Caucasus are imported, and are in great demand.

The best and most valuable wood is of very slow growth, very heavy and hard, and is of a beautifully fine and close texture. It requires careful judgment in its selection when in the log as sent into the market. It must be thoroughly seasoned before being used by the engraver, as new wood retains its moisture for a long period, and is most liable to split and warp, and is very susceptible to change of temperature. This being the case, it is most advisable, then, to procure your wood from the largest buyers and manufacturers, because they only make their blocks up from large stacks of thoroughly seasoned wood. A list of first-class houses will be found in Directory at end. The wood is sent over in logs, the trunk of the tree cut crosswise, and weighing on an average 2 cwt. each. In this raw state it is valued at about £40 per ton, but with the waste of barking, sawing, and squaring, it may be said to reach nearly £50 for best wood, and as the best is always the cheapest, inferior qualities will be ignored.

Its measurement is from 7 to 12 inches in diameter,

and the first process in manufacturing is to cut these logs in slices crosswise, about 1 inch in thickness, with a large coarse saw driven by steam power. They are then placed singly in racks for many months to season. During this time your ears are continually greeted with the sound of sharp cracks, which denotes that the slices of wood are drying and splitting from the core. (*See illustration.*)

This accounts for the fact that only blocks of small dimensions can be obtained in one piece, and, as very few of these rounds will give a block of more than about 36 square inches, the ingenuity of the manufacturer is called into requisition, and his method of producing a large perfect block containing many hundreds of square inches will be fully explained by reference to the following illustration.

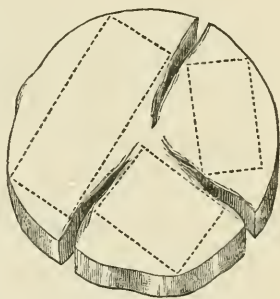


FIG. 24.

There are two systems of making large blocks from the smaller ones; they are the amalgamated or jointed, and the bolted—this latter method being of the greatest use, as the several pieces are screwed together with small brass bolts, and may be easily taken apart. By these means a large engraving, which would occupy one engraver a month or more, may be placed in the hands

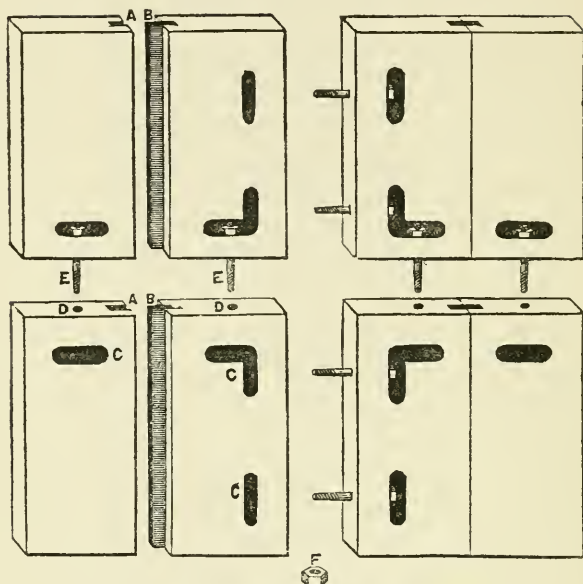


FIG. 25. BACK VIEW OF AMALGAMATED AND BOLTED BLOCK.

of several engravers at one time, and executed in a couple of days or less ; for instance, some catastrophe or noteworthy event occurs on Monday, and by the following Friday a large picture has been drawn, engraved, and many thousands printed and published. For this expedition we are indebted to the bolted block.

When the wood is properly seasoned it has to be carefully marked out in squares of the most convenient size, as seen by the dotted lines in Fig. 24, avoiding all

blemishes. These are then sawn out, planed up, and grooved, as at A A in the preceding figure, by a broad circular saw, which only cuts the required breadth and depth to admit the mahogany tongue, B B. These tongues are glued into the grooves, pressed together with cramps, and left to dry. The next process is to bring it down from its original thickness to $\frac{7}{8}$ of an inch, which is the height of type; it is screwed on to a facing lathe and turned down. It has now to be carefully planed and scraped with a steel scraper, and made perfectly flat and level all over, and finished off with fine emery cloth. They are then cut, and the sides planed up to the required size. The back of the block is roughened with what is called a toothing plane; this gives a grip or hold to the block while in the artist's or engraver's hands.

The bolted block, as before explained, is for the convenience of producing large engravings in short spaces of time, and it is handier for the engraver to work on a moderately small block than a large one; to this end, the blocks are squared to such a degree of exactitude, that when two or more pieces are bolted and screwed together, they are to all intents and purposes as compact as the grain of the wood itself.

In the accompanying figure, C C C, are the slots. These are to admit the nuts, F, to be screwed on to the bolts, E E, which are pressed through the bolt-holes, D D.



FIG. 26.

Fig. 26 is the key and wrench. Bolted blocks

must be screwed up uniformly, and great care must be taken of the edges when apart. In separating the bolted block the nuts must be partially unscrewed. The wrench is then placed against the end of the bolt, and the edge of the slot acts as the fulcrum of your lever in separating the pieces and forcing them apart.

Good wood varies from one penny to twopence per square inch; bolted blocks extra, according to the number of pieces.

From the Block Manufacturer to the Artist.

DRAWING ON WOOD.

Presuming the student has some knowledge of drawing, and, of course, wishes to draw his (or her) own subjects for engraving, the few following rules will be all that is required to be observed for the purpose:—

It is impossible to draw upon the wood as you buy it, as the highly-polished surface will not take the pencil, so you must prepare the face with a preparation of finely-ground bath brick and flake white, in equal proportions, and, with a little water, rub it evenly and thinly on with the finger; when dry, it is ready to take the pencil.

Now, supposing you have made your sketch on

paper of the subject you wish to perfect on the wood, you must lay a piece of tracing paper over this sketch, about half an inch larger all round than the size of your block, and trace the outlines only of your original sketch or drawing with a three-H pencil, then get about a pennyworth of red chalk, and with your knife scrape some on to the tracing on the side you wish to put down on the block, rub this well on with a piece of flannel until it is nearly all rubbed off, wax the sides of your block, and stick the tracing, red side downward, tightly over the prepared surface.

Remember that your drawing must be put upon the wood the reverse way from that which it is to print. For example, if you wish, say, a tree on your right when printed, it must be put on the left in your drawing; an animal looking left in print must look right on the wood; right hands are left hands; words must be drawn backward to print forward, and so on. This is settled at once by holding a book or picture in front of a looking-glass and noting the reflex.

Having prepared your block, reddened your tracing, and stuck it on to the wood, take a finely-pointed six-H pencil and go over the traced lines, carefully correcting any inaccuracies, and generally improving upon the first tracing. This done to your satisfaction, you may remove the tracing, and the result will be a clear red outline of your subject upon the prepared white ground.

You can now commence your complete drawing. Pencil your outline with a three-H, and when this is done, use a camel-hair brush, with some Indian ink, to wash in your tones and shadows, sky, clouds, &c.; this done to your satisfaction, the lining, finishing, or working up and sharpening up of your drawing must be done with good pencils, F and three-H are best; a little blue paint mixed with your Indian ink gives it a softer tone.

As the height of your block is about $\frac{7}{8}$ of an inch, and will be awkward to draw upon without some support for the hand, you may use another block for a rest.

The above method of wood drawing is the one adopted by the great majority of our wood artists.

From the Artist to the Engraver.

ENGRAVING ON WOOD.

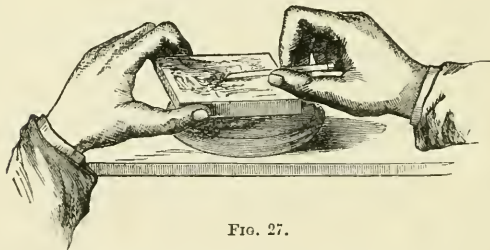


FIG. 27.

Fig. 27 shows the position of the arms and hands while engraving: the tool with the handle against the fleshy part of the bottom of the right hand, the third and little fingers catching the handle, but not round

it, the two fore-fingers on the outer side of the blade, and the thumb on the inside.

The thumb has the responsibility of steadying the hand and preventing slipping, and is the only part of the right hand which touches the block; the right arm almost horizontal.

The block is held firmly with the left hand, on the sand-bag, while the arm is, easily, down by the side.

Always engrave under the line, or so that the drawing may be seen over the tool. Cover the drawing with a piece of clean paper, by again rubbing the beeswax on the sides of the block, and sticking the paper tightly over it.

This precaution is for the purpose of preserving the drawing, and preventing its being rubbed whilst engraving.

Cut a small hole in the paper where you intend to commence before covering the drawing.

SAMPLES OF DIFFERENT CLASSES OF ENGRAVING, AND
THE PROPER TOOLS TO USE FOR EACH.

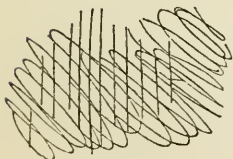


FIG. 28.

Fig. 28 is a sample of bold open facsimile, and is introduced more with a view to explain and illustrate the cuts of the lozenges and square (for it is entirely the work of these tools) than for any pictorial reason; though this work on a somewhat finer

scale abounds in such illustrations as those of *Punch* and similar journals. These cuts are made with a digging cut from the point of every diamond-shaped piece to the centre; the block is turned round, and the opposite or corresponding dig makes a complete diamond.

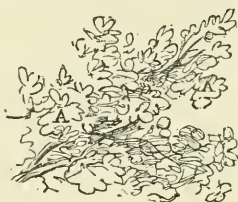


FIG. 29.

Fig. 29.—Trees and foliage in the foreground are also facsimile, and have a definite character, and are engraved with all the lozenges, according to the shapes and sizes of the white parts to be taken out.

The round-bellied lozenges cut the round parts marked A A in the accompanying figure.

This class of work is also done with a digging cut which spreads as the tool goes deeper into the wood.



FIG. 30.

Fig. 30.—Trees and foliage in mid-distance retain somewhat of their shape and character, and are engraved by a succession of little digs or pecks of one of the two first lozenges, and to give them the necessary leafy appearance the imaginary tops of branches must be lightened by larger digs than the main body of the foliage.



FIG. 31.

Fig. 31.—Far distance is generally neutral, and is engraved with the round-bellied lozenges by a series of short slightly curved lines.

The correct tool must be determined by the colour, and fineness or boldness of the subject.



FIG. 32.

Fig. 32.—Ground is also cut with the lozenges, and often tint tools are used in this work. As ground recedes it also loses its definition, as in the preceding figures, until it blends and becomes neutral or grey.

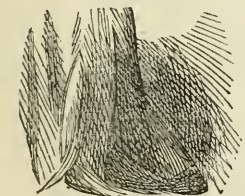


FIG. 33.

Fig. 33.—Fabrics are cut with the lozenges, but this class of work varies very much according to the artist's style.

The accompanying figure is that generally accepted, and consists of alternate thick and thin lines, with black cross lines running over them in a flowing angular direction.



FIG. 34.

Fig. 34.—Flesh.—In cutting flesh much care and decision is necessary.

Flesh tints are graduated lines, which blend into white from the darkest, or shadow side.

Commence by outlining the features, then the white spaces

with a lozenge, to the exact shape of the drawing; then, with a large tint tool or small scorper, cut cleanly up to the outline on the white wood which is to come away.

Now take the flat tool, and cut finely and evenly in a slanting direction the edge of the drawing upon which the edges of the flesh tint are to be cut, and blend into the white. This is called lowering the edges, and by this process a softness is obtained, as the edge you have lowered is slightly below the surface of the engraving, and is not subject to the same amount of pressure from the roller or press when being printed. Now, with the finest lozenge, outline the shade side of the arm or face or other part to be engraved, and, with one of the finest lozenges, commence your line on the dark side at the outline, and cut in one clean, decided curved line from shade to white, spreading the cut as you near the white by pressing heavier on the tool and cutting deeper. Commence your second line thick, and continue as before.

This makes the line taper from thick to thin, which gives the necessary rotundity, and causes the graduations from shade to light.



FIG. 35.

practice. Fig. 34 is the main tint, and Fig. 35 is the same cross lined.

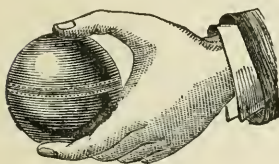


FIG. 36.

Fig. 36 is an example of flesh lining in comparison with mechanical tinting, and may afford some beneficial idea of similar styles of cutting, only differently treated.

ENGRAVING TINTS.



FIG. 37.

Fig. 37 is the solid wood, which prints black, and where black is required must not be touched with the graver.



FIG. 38.

Fig. 38 is a sample of the darkest engraved tint, and is cut with No. 1 tint tool.

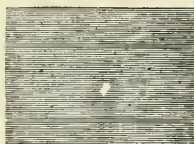


FIG. 39.

Fig. 39 is cut with No. 2 tint tool.

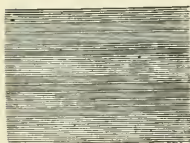


FIG. 40.

Fig. 40 is cut with No. 3 tint tool.



FIG. 41.

Fig. 41 is cut with No. 4 tint tool.



FIG. 42.

Fig. 42 is cut with No. 5 tint tool.

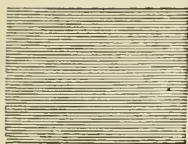


FIG. 43.

Fig. 43 is cut with No. 6 tint tool.

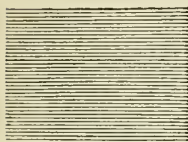


FIG. 44.

Fig. 44 is cut with No. 7 tint tool.

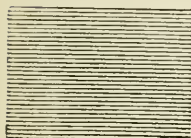


FIG. 45.

Fig. 45 is cut with No. 8 tint tool, which is the broadest, consequently the lightest colour tint.

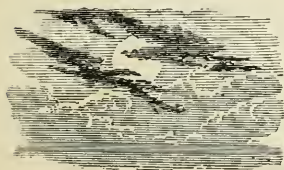


FIG. 46.

Fig. 46 shows the effect of three tints, as in clouds; No. 1, the dark flying clouds crossing the moon; No. 4, the clouds rising from the bottom; and No. 7, the back light sky, the moon and edges of the clouds being white.

MECHANICAL GRADUATED TINTS AND SHADES.

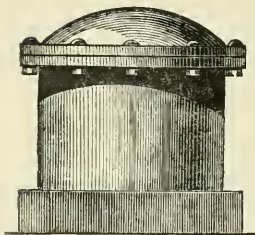


FIG. 47.

Fig. 47.—With No. 1 tint tool outline finely the inside of all lines to which tints are to be cut; also the solid shadows, such as the one under the projecting flange in the accompanying figure, which is left solid black, there being no lines on this; then with No. 3 tint tool commence on the darkest side of the flange and cylinder by cutting two or three thin parallel lines; then with No. 2 tint tool cut two or three more lines; then with No. 1 tint tool cut more lines, each one slightly thicker than the last, until you come to the deepest colour of the flange, or cylinder, which is the thickest line.

Now cut your lines successively thinner, and change No. 1 tint tool for No. 2, No. 2 tint tool for No. 3, and so on, until you come to the lightest colour, or white, as the case may be.

The light sides of the flange and cylinder are usually commenced with No. 2 tint tool, and graduated as before, until you meet the already engraved light lines, or finish off in the white; if white, the edges must be lowered, as mentioned in flesh tinting.

In mechanical tints every line must be cut perfectly equal from beginning to end, and of uniform thickness and depth. Do not attempt to cut a long tint line with

one cut, but by a succession of short ones. If you find the tool sticks in the wood, you may be sure you are cutting too deep and holding the handle of the tool too high; if it has a tendency to fly out of the wood, you may reckon it is blunt, or the point is unequally ground. Be careful to remedy either of these failings; you cannot cut good tints with blunt tools. The flat part of the handle should be only just above the surface of the block in cutting tints, but, as was remarked before, this does not apply to the other tools. The angle at which these are held must be determined by the shapes of pieces to be taken out.

As a guide for the regularity of cutting tints, take your pencil and draw some parallel lines in the direction of the tints to be engraved, about a quarter of an inch apart. You can then easily see if you are going right or wrong.

With these instructions, a few hours' practice will afford the beginner a very fair idea of the use and cuts of the tools.

As the first practical lesson must be a very simple one, take a small piece of boxwood, prepare the surface, and with a pencil draw two or three zig-zag lines thus:—

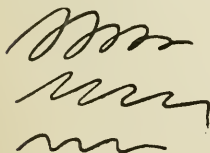


FIG. 48.

Take your first or second lozenge and cut carefully and evenly round each side of the drawn lines; then with the largest tint tools and small scorpers, cut away all the surround-

ing wood, gradually nearing the drawn and outlined lines, so that they only are standing in relief. The tools used for clearing must be according to the sizes of the pieces to come out.

In outlining be careful not to cut too deep, for, if you do, the depth of the tool in the wood will cause the belly to injure the lines against which it presses, and will print rotten and broken instead of clean and definite.

To protect your work when clearing, place a small piece of card under the bellies of your clearing tools, so that they rest upon that and not on the unprotected surrounding work.

When you have mastered the use of your tools sufficiently to enable you to cut these lines with a degree of firmness, without slipping or bruising the lines, you may give yourself more difficult tasks, such as little gates, houses, dog-kennels, &c., &c., to suit your fancy, in which you can introduce bits of foliage, skies, &c., and so call into requisition the majority of your tools.

Do not clear out the largest pieces of white until after the engraving is proofed, because those pieces act as a support for the dabber and burnisher, and prevent the light edges of skies and other parts from coming up in the proof too heavily.

PROOFING.

When your block is finished engraving, breathe upon it, and rub all the pencil marks off with the india-rubber. The ink takes better to the clean wood than to black-lead or preparation.

Beat up a very little proof ink (be careful of this, for the ink goes a long way, and is easily added to, but not easily



FIG. 49.

taken from the block) with the dabber on the slab until it is perfectly level, then with the dabber ink your block by continually dabbing upon it, and not rubbing, as the ink must only be on the surface. The greatest amount of ink must be on the darkest parts. When you have

inked it sufficiently, cut a piece of india-paper the required size, and breathe slightly on the clearest side, and lay it face downward on the engraving (great care must be taken not to shift it when once on the inked block); then drop a thin glazed card on the paper, and hold it on with the left hand, and with the burnisher rub all over the block on the card until you have got your impression. You may see how this progresses, by holding half the proof firmly on the block, and lifting up the other half or part and looking at it. When you are satisfied that you have a fair impression, take it cleanly off, and you have it as shown. (Fig. 49.)

Now for the finished proof. Take a sharp penknife and cut cleanly and evenly between the picture and the black pieces left until you have cut them all out, keeping them all flat and clean, especially so on the backs. The pieces are called overlays, bearers, friskets, &c.

Ink the block as before, and, when sufficiently inked, place the pieces so cut out over their corresponding blacks on the block.

Breathe, as before, on a clean piece of india-paper, lay it carefully on the block, drop the card on this, and use the burnisher as before, rubbing the heaviest on the darkest parts, and lightly on the lightest, keeping the point of your burnisher always directed towards the centre; and the result is as shown.



FIG. 50.—FROM THE ENGRAVER TO THE PRESS.

N.B.—All front objects must be outlined from the back ones and backgrounds.

Front objects are engraved boldest, and are more detailed than those receding into distance, and the distant ones are the finest.

Shadows must never be outlined from the object that throws them when on the ground.

With these observations I conclude, by advising all beginners to consider well how they intend to cut a block before they put a tool into the wood. Remember, while Wood Engraving is your master, you must be considerate, careful, and never hurry—decide on a posi-

tive course, and when once formed, succeed or fail boldly and determinedly, as the result will be more vividly impressed. If good, the desired end is attained; if otherwise, it prevents the possibility of falling into similar errors in future attempts; and then, no doubt, you will master Engraving.

PLUGGING.

This, although not a branch of Wood Engraving, is sometimes a very necessary operation, as there may be several unlooked-for reasons why a plug should be inserted. It is as well to say here, that a plug is a piece of fresh wood let into a hole made with a chisel or bit in the engraving where alteration is required, from the result of slipping with the tool, unobserved bad wood, or incorrectness of execution; but, from whatever cause, if this has become necessary, the greatest nicety is absolutely required. In the first place, where the plug is wanted a hole must be cut to half the depth of the block, and from spare wood a wedge-shaped piece exactly corresponding to the shape of the hole must be cut; this must fit perfectly, or a white line will show its position when printed.

Much care must be observed when making the hole in the engraving that the surrounding lines are in no way injured.

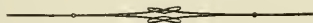
When your plug fits properly it must be glued in and

gently hammered down to insure its perfect fit. You then cut a hole in a piece of card large enough to allow the head of the plug to protrude and protect the engraving, when you saw off the projecting piece of the plug, close to the card, with a fine saw.

You now take your flat tool, and cut the plug towards the centre until it is perfectly level with the original surface of the engraving.

You then re-draw and engrave the plug, making what alterations are necessary, and keeping the new plug characteristic with the surroundings. It is always advisable, when convenient, to send these jobs to the manufacturer who supplies the blocks.

THE END.



[The Author is prepared to give Lessons in the Art of Engraving on Wood at his Offices, 2, Chancery Lane, London, E.C., or at Pupils' residences, on moderate and inclusive terms.—G. W. MARX.]

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FIG. 51.

tint tools before described, cut carefully round the letter. You may then clear all the surrounding wood away with little gouges—two will be sufficient—and the cost of this little plant need not exceed 4s., and would very soon repay itself.



ARTISTS' AND ENGRAVERS' DIRECTORY

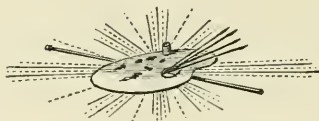
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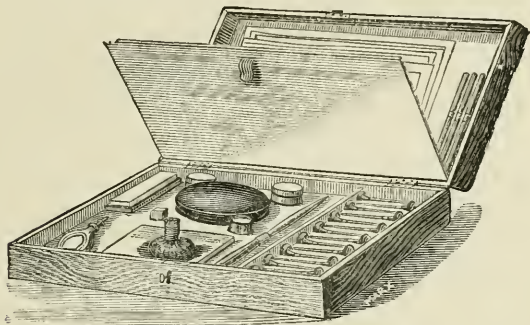
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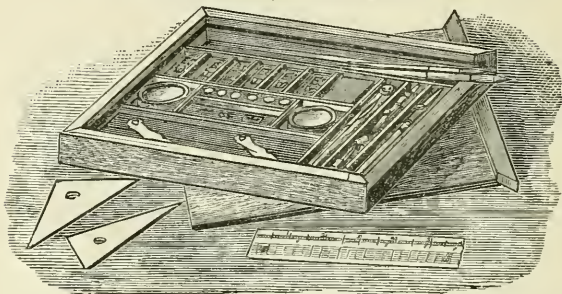
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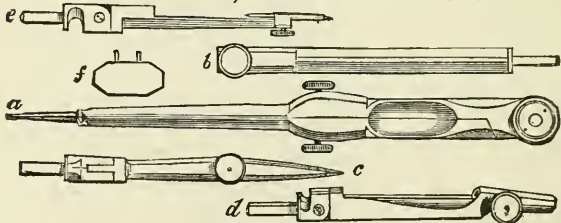
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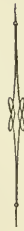
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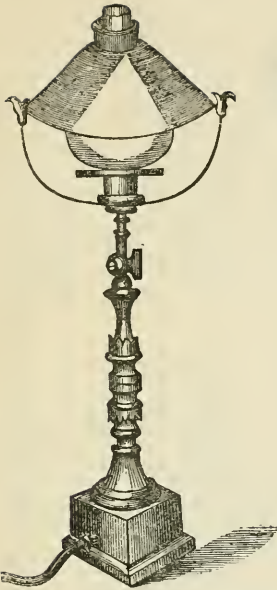
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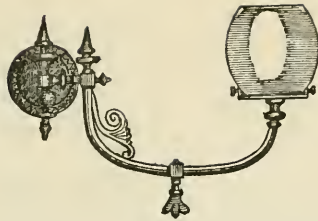
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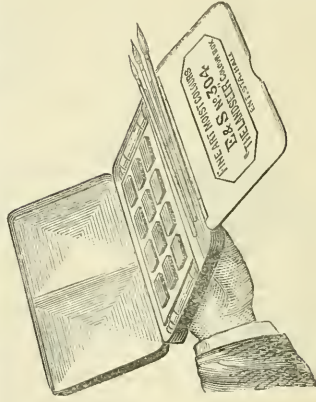
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