

HOURS WITH SOME WONDERFUL WORKERS.

THE ENGRAVER.



AS it never struck you, my young reader, in these busy days when printing is in all its glory, and illustrations of every kind are flying all over the country, to wonder concerning the "How" of the thousand and one woodcuts that are constantly to be met with in books, but more especially in the illustrated papers, where, almost as soon as any important event has occurred, it is represented, be it a war, a wedding, or a water-spout? Many of us are quite as much in the dark as to the means and method of their production as was that town-bred young lady who, when she *did* exert her imagination so far, supposed that cucumbers grew somehow in thin slices, because they were always in thin slices when brought to her father's table.

Now, just as I do not imagine that this elegant ignoramus would have enjoyed the dainty vegetable any the less for being allowed a peep at it, lying ripening snugly under its spreading green leaves, and all velvety with the soft, green bloom upon its surface, so I do not suppose you will enjoy your pictures—those in *LITTLE FOLKS*, for instance—one bit the less either, if you understand more about them and learn *their* history previous to their being placed before you. So let us go to a big and busy place I wot of, where wood engraving is done—I was going to say wholesale—only that would be scarcely a proper term to apply to such work.

But before we peep at the engravers we must turn in at another establishment to see the material used in the process. It is stacked on shelves overhead, and about us in great quantity yonder. Logs, small and heavy and unpromising enough, represent the best boxwood, mostly brought from the Crimea, and quite different from the small kind grown in our English gardens. These logs are seasoning for the finest engravers' use, but there are other and stouter planks—wood of pear, plane, holly, maple, and mahogany, all fine and stout and strong. On these will be cut placards and poster subjects, some of them of a most startling or amusing kind, to stare at and outface us on wall and hoarding. All these woods will be sawn into long inch-thick planks just as though for ordinary carpenters' work; but the box, having no grain to interfere, will be sawn across, each log sliced up in the fashion of a long loaf at a boys' school, all the hard slices being of exactly the

same thickness—which thickness is, as we are shown, precisely that of ordinary type or metal letters that printers use, so that it can be *set* along with them, and then, the whole surface having been rolled over with an even supply of ink, print together, and—

But stop! I forgot we are only still at the beginning, and before we talk of printing have a good deal to explain about the blocks, for as it leaves the circular saw that deals with it so swiftly, each of these rough slices is "papered" and rubbed and smoothed and polished until it feels like glass. Should there happen to be a weak or rotten place at its core, that is skilfully bored out, and the hollow filled up by a neat little wooden plug, which, smoothed over with the rest, would never tell of its whereabouts. Then perhaps the block is squared most accurately to allow of its being joined to others, for of itself it must be small, and some subjects require a larger space than any one slice of wood can produce. If an extra large block is wanted to be engraved on in a hurry, a number of these smaller blocks are *bolted* together, by means of screws and nuts, in such a way that in a very few minutes they can be divided into pieces, worked on, and then bolted together again, very much after the manner of a Chinese puzzle, and quite as securely, too. We are shown some double-page blocks, that—hey, presto!—revolve themselves by means of a key into twenty smaller ones, and then again into one solid and firm tablet, kept in readiness to record pictorially some unexpected event of national importance.

At length, large or small, the block passes into the hands of the artist, whose magic touch is to give it value and importance. The said artist works quietly in his own studio, and is quite unaware that we are watching him as he proceeds to prepare the wood, upon whose shiny, slippery surface it would be altogether impossible to draw. So the first thing he does is to coat it with Chinese white, or most likely some mixture he thinks unequalled—for most artists have private professional fancies of their own, just as most people have about poking a fire; and while it is drying—the block, not the fire—he traces his design, and next transfers its outline on to the block. Not that he could not draw it there at once, but that the whole thing must be reversed, otherwise all his figures would appear left-handed when printed.

Having got so far, he makes the drawing, using hard H H H H pencils, and washing in the shadows

with Indian ink, and touching up the lights with white paint, until he has produced so pretty a result that it seems a pity to meddle with it; however, where it can now only please one set of lookers-on, it will very soon gratify a thousand—nay, many thousands of persons all the world over.

If it be on a large *bolled* block, and is wanted very quickly, it will in a very short time be divided and scattered about in as many hands as there are pieces—say a dozen; and each worker will be cutting away so as to leave a slight margin round his piece, and when all the pieces are ready they are screwed together, and the several rough margins worked through, so that there should be no unevenness in the joins where the lines of the drawing meet each other. Of course you see the aim of all this is, that a dozen men should be getting on with a single block at once, and the double-page engraving be ready in much shorter time than it otherwise would be. With smaller and choicer engravings—such as you have in LITTLE FOLKS, for instance—each block is usually engraved by one worker, who brings his own individual taste and talent to bear on the whole.

Let us look over the shoulder of one of the engravers who is just taking up the block he has to cut. It is a tiny thing—a landscape; yet, as the process of cutting it will be exactly the same as though it were three feet square, we can get as good—nay, a better idea, for in that case most likely the work will be subdivided: one cutting all the sky, another undertaking the foliage, another—more advanced—the figures, and a master-hand finishing the whole. So we will remain with our solitary worker, and watch him carefully rubbing bees' wax round the edges of the little block. What is that for? Just to keep down and hold fast the square of blue with which he neatly papers up the top of the block. That is to protect the drawing, and his own eyes too, I fancy, until I see that he has a glass, such as a watchmaker uses, partly for that purpose and partly to magnify the lines.

Next he places his block on the top of a pile of little leather sand-bags that bring it to a convenient level, and, tearing an opening in the paper cover, begins to work at the sky, which is represented by sundry dashes of Indian ink and white paint, into which he digs his shining steel.

But, oh, the tool slips, and away into his thumb! Too sharp; no, too blunt. Don't you know it is always blunt tools that fly off on their own account? So he puts a few drops of olive oil on to a Turkey stone, and rubs, rubs, rubs, till the steel is pointed.

The sky is all straight lines; for this he uses a *tint-tool*, digging it in and running it along, and sending up straight chips so small you can

scarcely see them at all—line under line, and line under line, changing his tint-tool now and then, taking a broader pointed one when he wants to get a lighter sky, a finer one for a cloud effect. For every line he cuts away means "white," and every line he leaves standing means "black." You know if he did not cut any away, and printed the square block itself, it would be a black square, and if his tool runs through any of those many black lines, it will leave a white space in them.

But he outlines a mass of these, and for this he uses a fine *graver*, or lozenge-shaped tool, the point of which slides round about, and in and out, just as his hand twists it. A graver will not cut long straight lines any more than a tint-tool will cut curves. When he wants to clear away a good deal of the solid boxwood, he takes a *scorper*, of which he has a store of different sizes, and handles it firmly, so that out come huge pieces half the size of his nail, and with this, too, he lowers round about his block—no solid edge wanted there—and cuts into this lowered wood, so that when paper is laid on it there should be no ugly rim; or perhaps he cuts a straight line all round his work, though, if he likes, the printers can effect that by means of a brass rule.

But here we are almost at the end of our time, and may only just linger to see our engraver take a rough "proof" of his work. This he does by the aid of a sort of little kid dumpling, called a *dabber*, which he pit-a-pats on to a morsel of printing-ink beaten out on a marble slab. Then he pit-a-pats the blackened dabber on to the block till all its raised lines are moistly black, and, putting it on the table, proceeds to cut a square of India paper, something like very fine hot-pressed blotting-paper, and, laying it on the surface of the engraving, puts a square of smooth card over that, and rubs as hard as he can with a long, flat, steel burnisher.

Now and then he lifts one corner and peeps to see if it is "coming," then turns it and rubs again, and dabs on a little more ink with his finger. Presently he takes off the paper, and lo! the pretty landscape has not come off the block, but is on paper also. It is a rough "India proof" that will show him where to correct his work before trusting it to the printer's mercies.

Do not fancy that *they* will go through all this slow performance; for the block having gone through the various other stages necessary to prepare it for them, they can print engravings in the steam printing-press at a rate of many hundreds an hour, though the finer kind, worked more slowly in a hand-press, will look very much nicer, especially if printed on one side only of good paper.

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