

The Workshop.

ENGRAVING BRASS NAME PLATES.

Slight engravings on brass is not hard to manage, and may be done with trifling cost by those who possess care, patience, and perseverance. The process is as follows:—

Thoroughly clean and polish the plate, and rub it well over with chalk to remove the grease, then take it up in a hand-vice, holding it where no engraving is to come; lay the plate upon a covered charcoal fire (such as is used in the streets for roasting chestnuts); when it is warm cover it with soft varnish, and when this is fluid, and the plate warm, dab it over every part of the plate, using a dabber made of cotton wool tied up in fine soft silk. Make the varnish from Mr. Lawrence's recipe, thus: Virgin wax and asphaltum, 1oz. each; black pitch and Burgundy pitch, ½oz. each. Melt the wax and the pitch in an earthen pot and add the finely powdered asphaltum by degrees. Let the whole boil until a drop taken out of the pot will, when cold, break on bending it double; then pour the varnish into warm water, and make it up into a round ball, which cover with soft silk. When the varnish is evenly laid over the surface of the plate, take that off the charcoal fire, and hold it with the help of the hand-vice over the smoke of four smoky candles, or a petroleum lamp. The candle flame must not touch the varnish, but the smoke must become incorporated in the varnish and blacken it through. The plate can be returned to the fire and re-heated should the varnish cool before it is blackened, but it is better to prevent this by the use of plenty of candles, as the plate and varnish may burn. Make an exact tracing in every particular, of the letters to be engraved upon transparent tracing paper, and rub the underside of this with finely powdered red chalk; rub off with a rag any chalk that does not adhere, and then lay the chalked side upon the varnish. Touch the four corners of the tracing paper with wax, so that it can there stick to the plate. Place a wooden handrest over the plate, or make a wall round it, and lay a ruler across, to prevent the hand touching the plate while tracing; take a very fine knitting needle, and with its point go lightly over every traced line, so as to reproduce it upon the varnish. Remove the tracing paper and work with the etching needles. Use blunt, round, and well polished pointed needles for making strokes that are to be thick, and very fine instruments as sharp as a sewing needle for the thin strokes. Polish the points of the gravers from time to time upon the sole of a shoe, so as to keep them sharp. Fill up any strokes and marks that are badly done, or not required, by brushing over them some Venetian varnish mixed with lampblack; use a camel's hair paint brush for this purpose. Having worked in all the lines required, proceed to "bite" them into the copper. Place the plate upon a wooden board, build around its outside a wall of wax an inch high, with a lip at one corner to pour off liquid from; make this wax wall with beeswax, rendered pliable by the addition of Venice turpentine and tallow; then take enough aquafortis to cover the plate (refiners' aquafortis), and dilute it with half its quantity of pure water; pour this upon the plate until it is half an inch above the surface, and watch the plate carefully. When the copper becomes visible through the finest lines of the graving the mixture must be poured away; the strongly touched lines will show first, then the weaker ones. Wash the plate in pure water, dry it before the fire, then cover it with a coat of Venetian varnish laid on with a fine paint brush. Pour on the aquafortis as before, let it stop on until the graved lines look all sharp and distinct, then pour it off, and wash the plate with clean water. While the aquafortis is on the copper plate, verdigris will rise to the top of the liquid; remove this at once with a brush, or feather of a quill pen. The plate washed, warm it in front of the fire, and remove the wax walls as they melt; then make it quite hot, so that the varnish on its surface melts, wipe that off with a cloth, and well rub the copper with olive oil. Examine it thoroughly, and deepen any lines that may require it with the etching needles, and polish it.

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other novels, and we think ourselves that it was a pity that this class of works should have been so prominently brought forward. At least ninety per cent of the catalogues now issued, consists of works of fiction; whereas, in our opinion, the more solid works should have been classified first, and then, as of less importance, the works of fiction, if it is absolutely necessary to introduce them at all. In the British Museum library a watch is kept on the class of reading selected, and persons who confine themselves to volumes of *Punch*, novels and kindred works, are politely requested to resign their tickets and places to persons possessing more solid tastes. It is distinctly stated on the form of application that the use of the library is restricted to study, reference, and research, and we cannot but think it would be well if the same rule were applied here.

Another improvement, which we hope to see in time, and which would very materially add to the use and comfort that readers would find in the establishment, is a reference library. Dictionaries, Encyclopædias, Gazetteers, Directories, and other kindred works should be placed on shelves in the reading-room for frequenters to consult at their convenience. Authors, and heavy readers would be incalculably benefitted by this arrangement, and the librarians would see, as time went on, the books required in this department. Of course, the works selected should be heavily bound, and as often as practicable, in several volumes, which lessens the danger of theft.

Glancing for a moment, *en passant*, at Dr. Mulvaney's correspondence on "Spiritual Wives," we must honestly confess that we have scarcely patience to discuss so absurd a theory as the one he advances. In the name of right feeling and common sense was the public library instituted for girls in their teens, or for men and women of the world? If the former, the sooner all classical and standard works be removed the better, while their places should be filled with "Horatia's School-days," "Rosamond's Trials," and kindred notions. If girls are allowed free access to a public library, their negligent parents should take the consequences. Surely the proper persons to overlook and guide their reading are their parents and guardians, not the librarians of public institutions. We cannot but suspect that from what we have seen of Dr. Mulvaney's journalistic correspondence in this and other matters, his first motive is to bring himself into prominence, while the ostensible one of preserving the purity of the school-girl mind, and championing widows burying their husbands, comes a very long way behind indeed.

To conclude our first subject we are anxious that our readers should understand that, in offering the previous suggestions with respect to the library, we do not do so in a captious or fault-finding spirit, nor is it our desire in the slightest degree to impugn the excellent management under which the Public Library has reached its present state of efficiency. We are aware that the institution is as yet but a new-born babe, and it would be absurd to expect it to spring all at once into perfection with, to continue the simile, all its teeth in its head. We simply offer the foregoing remarks as hints of what yet may be done, while we express our cordial wishes, that a long and prosperous future may make the institution a power, through the dominion, to which persons may come from far and near to taste the fruit of the "tree of knowledge."

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