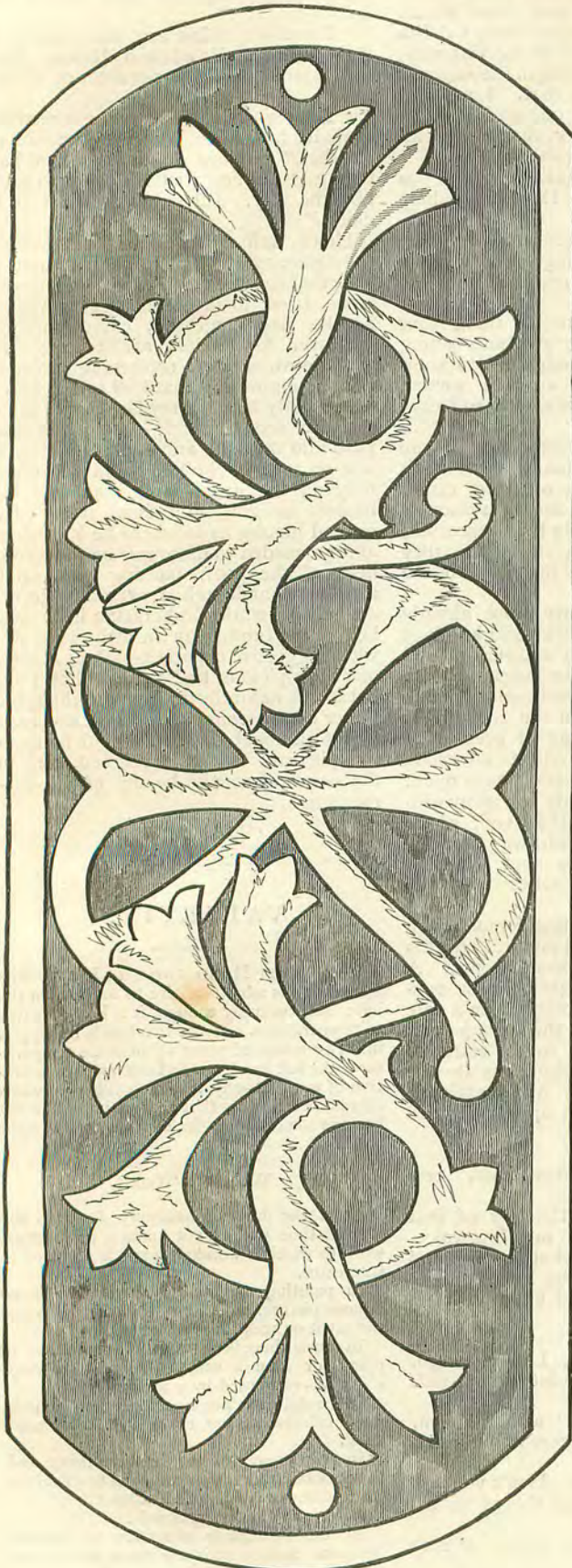


## REPOUSSÉ BRASS WORK.



DOOR PLATE.

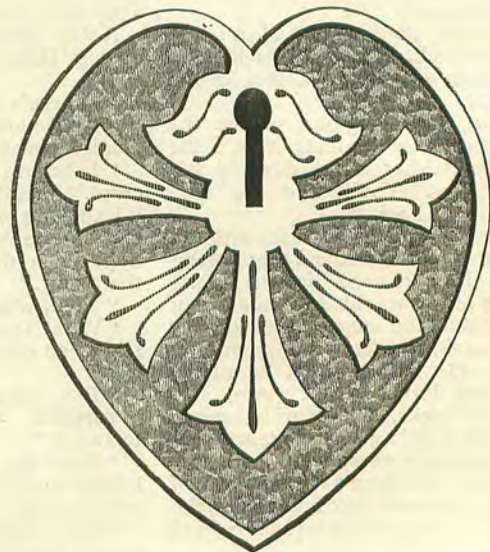
REPOUSSÉ, or hammered work, has lately attracted a good deal of attention by its own decorative excellence, and from its being an art that an amateur can learn. It is a revival of the beautiful metal industries that became so celebrated in the time of the Renaissance and that have not ceased to be laboured at in Persia, India, and Morocco. We owe the present interest in it to the efforts of a society of artists, anxious to educate the public to distinguish between good and bad work, between that work that bears the stamp of an individual mind and intelligent labour, and that which is only valuable for the material composing it, and is turned out by the dozen, either by machinery or by workmen whose efforts are entirely mechanical.

In olden days artists thought it no degradation to design and work upon metal, and many a painter and sculptor has left proofs of his skill in this work, while Benvenuto Cellini, the famous sculptor and engraver, served his apprenticeship to a goldsmith besides learning to draw at the schools, and his work in metal ranks as high as his other labours. For many years our modern painters looked down upon any art outside their particular groove, and forgot that a lover of true art recognised its presence as much in a lowly common object as in the costliest, and that by beautifying daily life a great possibility for knowledge and appreciation was opened to the many thousands who could not purchase costly pictures.

By abandoning the lesser arts of work in metal, glass, and carving, men of culture left the making and designing of ordinary objects to men who were ornamental designers and nothing more, and who, for the sake of producing something new, violated every rule of art, and taught the public to value a certain manual dexterity instead of grandeur of form and conception. It is to these men we owe the realistic groups and designs that disfigure much of the modern silver, and it is these men who have taught us to behold, without realising their incongruity, figures holding up salvers double their own size, dryads presiding over a salt cellar, and the face of the donor of a gift as a final to the figure of Mars or Jupiter that ornaments it.

Now that most educated people distinguish between true and bad art, and metal work has advanced in public appreciation, from being essentially a work done by hand, and one that can take the impress of the actual worker, we predict a long career of success to all hammered work, whether executed in silver, iron, or brass, so long as the workers will design patterns that are in correct taste and subservient to the utility of the article ornamented. But there are many good workers who are not designers; these need not despair; the beautiful specimens of old work preserved in South Kensington are open to them, so are good geometrical designs taken from well-authenticated sources, and the innumerable Eastern trays and bowls that can be found in every well-furnished house. Let the worker only select designs with judgment, and not be content with the first scroll or ornament lighted upon, and the result will be satisfactory.

As a remunerative employment repoussé will, in the hands of a skilled worker, command a certain income, but we would warn all girls who are thinking of taking up the employment, that what is known as "amateur work," *i.e.*, work done in haste with blurred and shaky outlines and badly raised surfaces, will not sell, and unless the heart is in the matter and many hours of really patient work are given to acquiring the rudiments of the art, the expense of setting up the materials had



ORNAMENTAL KEYHOLE.

much better not be gone into, as the only result will be failure and peevish complaints about the difficulty of the undertaking and the uselessness of the instructions. Repoussé is by no means a difficult art; the few rules to be carried out are simple in the extreme, and any girl can remember and understand them. The difficult part consists in learning to hold the tools steady when outlining, so as to make a deep, even, continuous stroke and not a line composed of numerous jerks, made with great depth at the commencement and tailing off to a faint scratch at the end. Many an hour must be devoted to holding the tool properly and keeping it steady on the metal, before the hand learns to guide the tracer so that it executes curves, rounds, and straight lines with one continuous and even line, and when at last this difficulty is overcome, the various punches used to depress the ground will be found to be moved by the same contrary spirit that animated the tracers, and these have to be tamed with the same patience.

The chief work of tracing and punching falling to the lot of the left hand, and more particularly to the third finger of the same (the finger least brought into play in most handiworks), it is some time before the worker begins to assume any power over the instrument, but when once she does, the chief trouble is over, and the rest of the business interesting and absorbing.

For the sale of really good work, there are many openings; the trade will take that which is original and good, while for less ambitious specimens there are the institutions devoted to the sale of ladies' work, where anything out of the common run is gladly received, and there are also numerous fancy shops at well-frequented watering-places, where specimens are shown in the windows, and a small commission charged upon each sale. When the work is only taken up as a useful employment for leisure hours, there will be no difficulty in disposing of it. At bazaars it finds a ready sale. As a present it is much prized, and the decoration of the home with the articles any amateur can make will be much appreciated by the less gifted members of the family, and will serve to give that stamp of refinement to a house, and that character to it, that individual thought and labour always imparts.

The word Repoussé means raised or forced out, and it consists in working in such a manner upon a piece of thin rolled metal, that a design appears in high relief from the

REPOUSSÉ WORK.



HALF OF SMALL TRAY.



ORNAMENTAL KEYHOLE.

ground. This design is brought out by first depressing whatever part of the metal forms the background of the pattern, and by then turning the work upon its face and finishing it by working at the back of the metal. Some workmen, and more particularly the Persian and Moorish artists, commence their work at the back, and after beating it out on that side, turn it and put the finishing strokes on the right side, but the process is the same. When the pattern is thus brought out in high relief, it is perfected by lines and strokes being carefully worked out upon it with a fine tool. These lines indicate the hollow of a flower or the vein of a leaf, the markings upon an animal's coat, or the twistings of a scroll, and are called "chasing." This chasing is not necessary to repoussé work, but it very much enriches it, and serves to raise and bring up the design. The ground round the pattern is also embellished, and instead of being left a simply depressed surface, is worked with fine crossed lines, like the hatching of a crayon drawing, or is marked all over with little rounds or dots made by beating it with a specially prepared tool.

The instruments and the materials for the work are especially simple; they consist of rolled brass made of various thicknesses, and in long lengths and widths. The thinner kinds of this rolled brass are easily cut with a pair of workman's scissors to the size required for the work, while the thicker sorts, known as sheet brass, are cut to the right size, and any open part of the pattern filed out, before the hammering is commenced. Rolled brass No. 3 is the usual make for beginners to learn upon, and enough can be bought for 1s. or 1s. 6d. to work out the four designs given with this paper. It is not advisable to begin with the very thinnest brass, as a learner

is apt to be too powerful with the hammer, and if the tool in use happens to be a sharp one, it will force its way through the brass and make a hole. Besides the brass there are the various tracers and punches; these are made of different widths, some with broad and curved ends, others with finer points, or with slightly square endings. These punches, or "mats," and tracers are simply straight pieces of lead shaped out at the end, and are such as are used by all metal workers. Their individual cost is very small, about 6d., and two or three are quite enough for the beginner to procure; but as the work improves, different shaped points will be found useful so as to more effectually work over curves or make patterns when chasing, therefore a dozen different kinds of punches, etc., will not be too many for finished work. Many manuals upon hammered work recommend the beginner to use a French nail whose point has been blunted, but no one who has really tried to outline a pattern and hammer in a background will endorse the statement, as it is impossible to hold so small an instrument with any firmness, or to strike it sharply without it breaking away. A few French nails are handy to have ready to help at corners and sharp turns, but when a good instrument can be bought for 6d. it is a pity to use an inferior one. The hammer used is small, but with a heavily weighted head. The handle is made of strong wood, slight in size down its length, but finished off with a round knob that renders the grasping of it easy. A pair of pliers for turning the brass down at its edges are useful, so is a penknife in a fixed handle.

In order to hold the brass perfectly steady it is necessary to fix it into some substance that will deaden the force of the blows of the

hammer by its own pliability, and yet resist that blow. Metal workers have found that a mixture of pitch and sand is the substance that best answers their purpose, and they use no other method.

The pitch and sand are mixed in equal parts with a small quantity of tallow, and that substance is stuck on to an iron support, shaped like a round cannon ball cut in halves; this is held in a ring made of a coil of strong leather strapping, and as the iron is round it can be moved and turned about with great ease upon the leather ring, which is always steady and comfortable to work at. When it is necessary to fix the brass to the pitch, the latter is warmed until it melts, and the brass pressed down upon it so that it becomes incorporated with the composition.

Amateurs sometimes use, instead of the pitch, a hard block of wood, with or without a sheet of lead stretched over it, but professional workers always use the pitch, because it is much more difficult to hammer out a piece of brass fixed to the wood than to pitch, and because only straight work can be done upon the block, any round or curved pieces requiring to be embedded in the softer substance.

In our next article we will commence the working of the metal, taking the door-plate shown in fig. 1. as an example. This door-plate is designed with simple lines and curves of moderate lengths, so as to present the fewest possible difficulties to the amateur; the next piece of work should be the simple keyhole shown in fig. 2, while the more elaborate keyhole, fig. 3, and the section of a small tray, fig. 4, must be left until greater facility is acquired in the work.

B. C. SAWARD.

## DONALD AND I.

By NELLIE HELLIS.

### CHAPTER III.

MRS. DRAYTON was most kind, treating me more as her sister than her children's governess. My pupils were apt and docile; and altogether I found my position far pleasanter than I had anticipated.

Born of the new feeling which had taken possession of me, came the desire, painful in its intensity, that Donald would return my love. But in the short matter-of-fact notes, received only at long intervals, and in the messages he sometimes sent in his mother's letters, I could glean no shadow of hope that I was anything more to him than the little friend and "sister" of whom he always thought kindly, and wished well.

It was a bitter lesson, but I learnt it. And then, dreading the consequences of the deep and poignant sorrow that threatened to destroy the happiness which might otherwise be mine, I resolved, at whatever cost, to stamp out my love to its roots.

And after a while, though many many months had passed before that time arrived, I succeeded in putting Donald from my mind; and trusting no future, and burying the past, was able to do the present duty with a whole heart. At first the endeavour seemed a hopeless task, but with much struggling and constant striving I conquered self. And so, once more regaining inward peace and contentment, I realised in a very precious sense the truth of Donald's words, that God helps those who try to help themselves.

In this uneventful manner four years passed. Then, as my pupils had learnt all I could

teach, Mrs. Drayton decided to send them to the school in England at which she herself had been educated. She therefore no longer required a governess's services. But, when informing me of the fact, she expressed a hope that I would be in no hurry to seek another situation; and that for a time, at any rate, I would remain with her as her guest.

Grateful as I was, both to Mr. and Mrs. Drayton, I told them I should accept the first suitable engagement that offered. In order, however, to be near such true friends as I knew they would always prove, I should endeavour to find a situation in Paris; and in the meantime, if they would not think it slighting to themselves, I would spend a few weeks with Madame Dévouthon. This lady was a friend of Mrs. Drayton, and she had given me a very pressing invitation to visit her at her house at Dieppe.

Madame Dévouthon received me with great kindness, and, together with her son and daughter, did all she could to make me happy. Indeed, the attentions of M. Adolphe soon grew decidedly marked, and I had only been at Dieppe a fortnight when, coming into the garden where I sat at work one afternoon, he told me "mademoiselle" had stolen his heart, and that he should never again be happy unless she consented to become his wife.

Astonishment literally took away my breath. He interpreted my silence as consent, and raising my hand, and pressing it to his lips, began in an impassioned manner to thank me for the happiness I had given him.

"Pardon, monsieur," I gasped, but indeed

I could say nothing. I was so taken by surprise that I could find no words. "Monsieur Adolphe, I am not insensible to the honour you have done me, but—"

He stopped me, begging me not to extinguish the hopes that I had kindled in his bosom.

I had now, however, regained composure, and I told him quietly and firmly that I could not entertain his proposal.

"Oh, mademoiselle!" he cried, "you have broken my heart, and not only mine but also that of madame la mère."

"You cannot mean that you have acquainted Madame Dévouthon with your intention?" I exclaimed, in fresh astonishment.

"But, indeed, yes; and she was so rejoiced at the prospect of welcoming a daughter at once so beautiful and so amiable."

His offer was beginning to present a more serious aspect (I had been uncertain at first whether he was in earnest or in jest), and I hardly knew how to reply. Again he turned my hesitation to his own advantage. He would not press me for an answer; he would wait until the next day, and then, before I could utter a word, he had left me.

I ought not to have wavered, but I did. I was alone in the world. I had not a single near relation; no claim to any home. By marrying Adolphe Dévouthon I should, at any rate, gain a protector and a "maison" of my own.

In the midst of these thoughts, Donald's face returned to my memory. I put it away resolutely. I had done with him long, long



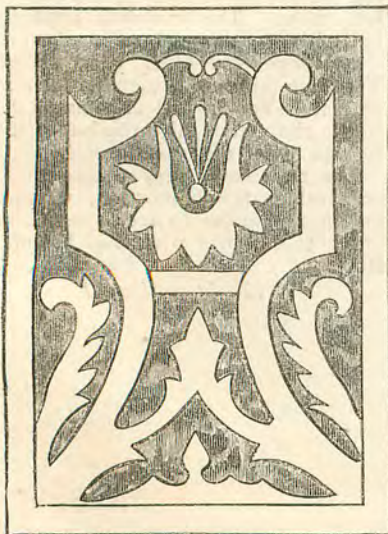
WALL LETTER RACK.

## REPOUSSÉ BRASS WORK.

## PART II.

In our last article we enumerated the various implements used in repoussé; in this we propose to take the design for a door-plate there given to illustrate our instructions in the art, it being easier to learn from directions applied to an actual and visible pattern than from general remarks.

Having procured sheet brass, pitch block, hammer and tools, commence by transferring the pattern to the brass. There are three ways of doing this: the simplest, if the worker is a draughtsman, is to pencil the outlines very carefully on to the material, but as this plan is one that can only be carried out by accurate drawers, the other methods are chiefly used.

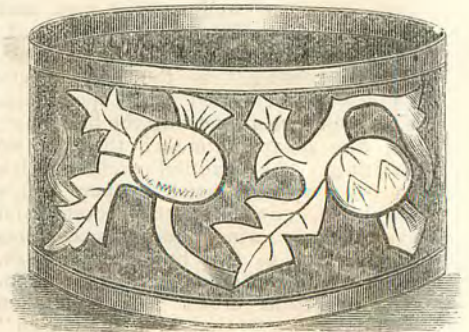


SIDE OF MATCH BOX HOLDER.

For the first, cut out the printed design from the paper, and with a pin prick through every line, making holes an eighth of an inch apart, and following every stroke, lay the pricked pattern upon the brass, and pounce through the holes charcoal dust or crayon dust. Lift off the design with great care, and with a pencil trace the pattern on the brass, carrying the pencil lines from one clot of charcoal to the other. The third plan is, trace over the pattern with ink upon a sheet of thin tissue paper, and gum this to the brass, so that it lies flat and straight upon it. The drawback to this way is, that the paper remains on the brass during the working, is rather liable to come off when the brass is heated with contact with the hot pitch, and the blows upon the background parts cannot be seen until the worker pulls off the paper laid over the places, otherwise this last plan is the one most in favour with amateurs.

The pattern secured, cut the piece of brass round with a pair of metal-worker's scissors; leave a margin of half an inch round the door-plate beyond the design, and indent this with the file, turning it slightly inwards, and then oil the brass at the back. To make the brass plate adhere to the pitch the latter requires to be warmed. This is best accomplished by an indiarubber gas tube, with a flattened jet affixed to any gas jet in the room. When lighted, pass the flame of gas rapidly backwards and forwards over the surface of the pitch, never allowing the flame to touch the pitch or to remain steadily on one spot, as, if the pitch becomes burned in the process of warming, it is hurt. The pitch will soon melt and begin to run; turn out the gas and lay the plate on the pitch, press it down hard, and use a damp towel while doing so, so as not to touch the brass with the fingers, and never touch the burning pitch.

Allow the brass to cool, and begin the work by tracing the outline of the design as a deep continuous line. The tracing tools are now required. The tracers have slightly curved points, and some of the points are broader



NAPKIN RING.

than the others. A beginner should take the broadest pointed instrument, as the fine tools are more likely to cut through the brass. Use the broad tool for all the widely-curved lines, and only take up the finer pointed ones when the sharp turns or curves will not allow of the broader tool being used. Tracing the outline is one of the most difficult parts of the work, and in badly-executed work this line is often omitted. In good work it is always done; and anyone wishing to learn repoussé thoroughly must do it.

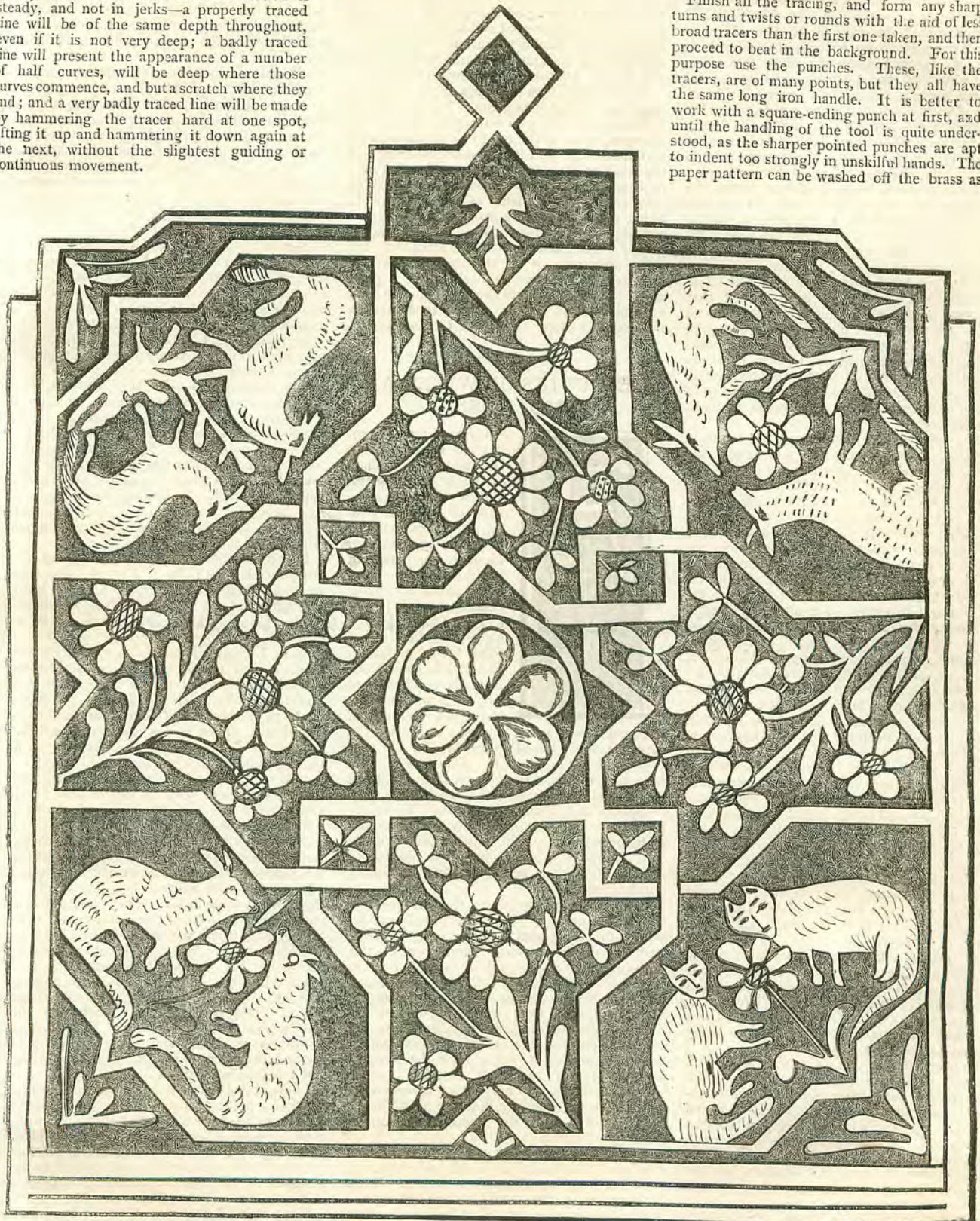
The position of the fingers is very important when holding the tracer. Hold the tool in the left hand; put the little finger (slightly thrown out) upon the metal, the third finger round the tool, but a little behind the back part of the point (so as to guide it), and just touching the metal, the other two fingers round the tool, above the third finger, and the thumb grasping the tool. The tracer is held nearly, but not quite upright, with the back of the broad point touching the brass line to be made, and the front point a little elevated; the right hand holds the hammer, grasping it at the knob, so as to throw all the weight of the hammer into the blow given on the top of the tracer. Press the tracer evenly along the

line, working along the curves from left to right and inwards, and striking the head of the tracer as it moves with the hammer, so as to give out a sharp click—not a dull one. (By the sound made by the blow a workman can detect if the tool is being held correctly.) Keep the tracer moving, but very slowly, and be careful that the motion is steady, and not in jerks—a properly traced line will be of the same depth throughout, even if it is not very deep; a badly traced line will present the appearance of a number of half curves, will be deep where those curves commence, and but a scratch where they end; and a very badly traced line will be made by hammering the tracer hard at one spot, lifting it up and hammering it down again at the next, without the slightest guiding or continuous movement.

The traced line can be gone over several times if necessary, in order to deepen it, but it should not be considered finished until it is well driven in and broad. The advantage of the pitch block over the brass nailed down to the wooden one is very apparent in the tracing—

the hammering is not such labour with the former, the lines helped by the pliable background are more easily shaped into curves, and the noise made by the hammering much lessened—the latter being an especial boon to those who must work at home and not at a factory.

Finish all the tracing, and form any sharp turns and twists or rounds with the aid of less broad tracers than the first one taken, and then proceed to beat in the background. For this purpose use the punches. These, like the tracers, are of many points, but they all have the same long iron handle. It is better to work with a square-ending punch at first, and until the handling of the tool is quite understood, as the sharper pointed punches are apt to indent too strongly in unskilful hands. The paper pattern can be washed off the brass as



BACK OF CANDLE BRACKET.

soon as the tracing is finished: it simply requires to be thoroughly wetted and taken off with a duster.

Hold the punch in the same manner as the tracer, but hold it over the centre part of any space to be beaten in, not near any of the deeply grooved-in lines; if the work was commenced at these places, and heavy blows struck there before the other parts of the brass had been flattened, the plate would split. However small the part to be hammered, always work from the centre towards the sides: thus, place the punch in the middle of the space, and slowly guide it towards the outer edge, beating it with the hammer the whole time; lift it when it reaches the edge, replace it in the centre, and guide it towards another part of the edge, and continue until every part is once gone over; then return to the first stroke, and recommence, being careful to flatten the whole space evenly before beating in one part to the required depth. The process of beating in the ground is a tedious one; the work does not require so much manual skill as tracing the outline, but the eye and the attention is concentrated so much when working at the latter upon the shape of the lines being formed, that the time passes more quickly than it seems to do when the tool is merely guided from the centre to an outside line. While the background is thus being beaten in, any defects in the deeply-traced lines can be smoothed over; this is accomplished by hammering close up to the traced lines and over any weak and imperfect strokes.

The deeper the background is beaten in and the longer time spent upon bringing it to perfection, the more raised and *repoussé* the design stands out; therefore, no amount of labour is thrown away when working at this part. Simply beating down the ground is enough for the first piece of work, but when backgrounds with patterns upon them are required, punches shaped like crescents at the point, or as circles, stars, crosses, will be required; these are used, not to flatten in the ground, but to embellish it after the ground has been sufficiently hammered down. These fancy punches can be bought at the metal-workers' shops for the same price as the plain ones, or for a very little more, and they are technically called "mats." When, however, the worker takes a fancy to using a device for the background that is out of the common run, it is not difficult to make, or to have made at an ironmonger's.

Steel rod or wire, an eighth of an inch square and of any length, can be procured. This is cut into four-inch lengths, one of the lengths taken and its upper end smoothed with a file until the edges are pared away, and it can be handled without discomfort. The lower end is then filed until it is slightly smaller than the upper, and on the point a small device shaped with the file. This end is then made quite hot and plunged into oil, by which means it is hardened, and works better and longer.

After the background is finished the very few chased lines shown on the design are indented with a chaser—a tool which resembles a fine chisel; but unless the worker feels confidence, and can draw a steady firm line, these lines had better be omitted at first, as a badly chased line is worse than none.

To take the plate off warm the pitch, pick up the plate with a pair of pinchers, oil its face, rewarm the pitch, and press it face downwards again upon the block. The background will now appear, as the raised part and the pattern will be depressed. To depress this more, and to obliterate any uneven hollows, take the punch known as a "flattener," and use it to press inwards the pattern and to smooth it over.

The "flattener" has a broad point, and is worked from the centre of the brass to the

side, and struck lightly with the hammer. By rewarmed the pitch when the design has been well gone over, the plate is removed. To make it up as a door-plate it is backed with a plain piece of metal; this is done at a shop; it is then polished, the brass being dull-looking when bought by the sheet. To polish, first wash the plate with a mixture of vinegar and salt, then apply a coating of cream of tartar; this is a powder, and is wetted and laid on as a thick layer; leave it until dry, brush it well off with a short-haired brush (an old plate-cleaning brush will do, but a rather harder brush is better).

The designs given this week work out in the same way as the door-plate. The match-box holder is useful for two sorts of holders, either the upright or as the top to a case for holding matches. The wall letter-racket is the first of the series of letter-holders in a wall racket; the other holders need not be so much worked, or may be left quite plain, as the letters hide them. The dinner ring make of thin brass, as a straight piece, and then solder its ends together. The back for candle bracket is the most ambitious of all the designs. When executed it requires an oval piece of plain metal affixed on to hold the candle, or a pair of candle arms at the side. It should be finished at a shop.

B. C. SAWARD.

## THE DUTIES OF WIVES AND MOTHERS.



So very large a proportion of women are destined to remain single, from the seclusion of their lives, the lack of sufficiency of means, the preponderance of the female over the male population, ill health, and the frequent selection of wives from widows, it is well to regard marriage as a mere possibility, rather than as a certainty. But, judging not alone from the revelations of our correspondence columns, but from personal observation, to marry seems the supreme end in life of a very considerable proportion of the population. This fact is more especially remarkable amongst the daughters of professional men and tradesmen, shop assistants, and domestic servants. To marry for mere bread-sake is, nevertheless, becoming a discarded idea of the past in the ranks of well educated women, and the desire to render themselves self-supporting is rapidly gaining ground.

I by no means underrate the happiness to be found in marriage; which, so far as possible, ought to be ensured before facing possible and unavoidable adverse contingencies. But I absolutely deny the truth of that mischievous assertion of Dr Johnson's, that "if matrimony has more cares, celibacy has no pleasures." The standpoint from which he viewed the relative advantages of the two conditions was false. Were the former what it was divinely designed to be, it would offer the most of happiness; but that "if" should bespeak extreme caution on the part of a woman of common sense, and preclude the possibility of her regarding it as the grand climax of her youthful ambition.

Banish the impression that a single woman need be a despondent, aimless, joyless being, regarded as "superfluous" in society. Were all married, where would be the sisters and aunts that are so much in request, when ill-health, over-work, and poverty follow in

the wake of large families? So much depends on their unselfish devotion; and, even if the duties be arduous, no truer happiness exists on earth than in filling the honoured place of a second mother.

Change the picture a little. What a privilege and satisfaction to be the stay and comfort of beloved parents, when the other children have dispersed and left them alone; and the daughter, vulgarly stigmatised as an "old maid," proves the support of their declining age!

It might naturally be supposed that mothers would know the special duties of their position by a natural instinct, without needing suggestions from others. They have, or ought to have, attained mature age, completed a fair education, and developed sufficient judgment to check the vagaries of the imagination; under such circumstances their children need no other monitor, nor lack that sympathy that should accommodate itself to the pleasures or troubles peculiar to the tenderest years or to riper age.

Surely I do not expect too much! If the judgment be not matured, the grave duties of the wife, and the still more absorbing and extensive ones of maternity, should not be undertaken: nor the mere scholar venture to assume the place of teacher and ruler of others.

In point of fact, what is the picture usually presented to us? A young fledgling leaving the parental nest, her studies of art, her lawn tennis, and garden parties, her rides, and boating, and evening entertainments, all enjoyed with the happy *insouciance* of a young daughter of the house—rushing into the unknown responsibilities of a matron, as often for the *prestige* of owning a house, as for the sake of one with whom she will be suitably and happily matched. As for the possibility of the step being taken "for worse," such a peradventure never shadows the brightness of her self-selected future prospects.

Lest the chances of happiness be against you, arm yourself at all points. The intending wife, and possibly future mother, has much to learn, and many aids and safeguards are within her reach. On returning home from school at eighteen, she should commence practical, as well as theoretical, studies of a perfectly new kind. These pursuits must, to a considerable extent, substitute those of art, science, and literature, which should hold a secondary place until this supplementary education be completed. They are by no means without interest, and some of them offer attractions that lighten the work of a learner. In any case, a well-regulated mind will find compensation for any dryness or difficulty experienced in the consciousness of advantage gained, if not by herself, at least by others.

Young girls fresh from school or college pride themselves on being "grown up," possibly distinguished for their scientific or literary attainments, and more or less free to choose their own course in life. They should then at once begin a judicious preparation for every contingency that may and will arise. In my article on the duties of children, entitled "Honour thy Father and thy Mother," I entered into the question of this supplementary education, viewed as of filial obligation. I now take a different standpoint; and treat this training in manual work, and this practical utilisation of intellectual culture, as duties to themselves; to render them eligible as wives, and possibly as mothers.

I have already observed that her first business should be to lift as much of the burden borne by her mother upon her own shoulders, while usurping none of her authority in the household. Quite apart from the filial element in this question, let us proceed to enter into an investigation of the several departments to engage her attention.

First of all I recommend my young friend to study the questions of general expenditure,

## REPOUSSÉ BRASS WORK.



FIG. 1.—FINGER BOWL.

In the instructions as to the practical working of repoussé given in our last article, the two points of the most importance were the correct holding of the tools and the depth and form of the beating in. So important is the position of the hands when working upon brass, that we again call attention to this matter, and no amount of reiteration can impress upon our readers too strongly that the left hand must exert the same force as the right, and that on the third finger of that hand (the weakest of all) rests the guiding of the tool along the lines.

In most manual labour the left hand is used merely as an accessory to the right, and its strength, not being called out, is not developed. As in repoussé this strength must be exerted, every effort and watchfulness is needed, or the guiding of the tool will almost insensibly be slurred over and forgotten, and the hammer be more exercised than the punch. Practice, constant and unremitting, is the only means that will enable both hands to work in harmony, and several years' toil will be needed before work equal to a professional's will be produced. Remember that to hold the tool properly the thumb and first finger grasp it, the first finger only slightly bent; the second finger rests on the tool below the first, and touches both the third and first fingers, but not the brass; the third finger rests on tool and brass, and steadies the tool without holding it, and directs its course along the lines being made, while the two fingers and the thumb attend to keeping the tool upright but slightly slanting backward. The little finger is not brought into play, but it is allowed to rest on the third finger and to strengthen the latter's hold on the metal.

Again, with the methods of beating down the background and forcing up the pattern into full relief. In our first article we mentioned that certain tracers and punches were required to elaborate the designs, and vary the backgrounds; but in the instructions given for working out a door-plate, in order that the beginner should not become confused, only a few tools were brought into requisition. Other tools, both for finishing back-

grounds, tracing curved lines, and completing the relief, are employed when the student is more advanced. These are the following:—

For outlining the design beside the straight punches or tracers with broad or fine points, there are the slightly curved, the curved, the half-round, and the round-pointed tracers.

The slightly curved tracer is required when a line only deviates imperceptibly from the direct perpendicular, but in so doing makes a bold curve. This tool is made with a broad point, straight at one end and slightly curved at the other, and when placed upon the metal with the curved end forward will accurately follow any rounded line, the curve, whether outwards or inwards, being made by turning the rounded edge of the point to the outside or to the inside of the work. This slightly-curved tracer is required when outlining some kinds of leaves, and for any conventional or arabesque designs, where large rounds or bold half-circles are introduced.

The curved tracer and the half-round tracer are used for smaller and more decided curves; they are required when outlining such fruit as small apples, for some kind of leaves, for chased lines on the design indicating shadows, and for the marking out in the same parts of the work the scales of fish, feathers of a bird, or the curves of the joints in grotesque animals. The half-round tracer makes a more decided curve than the curved, as it completes a half-circle; it is used upon the same markings as curved, but upon those that match it in outline.

The round tracer is a tool whose point



FIG. 2.—SMALL TRAY.

makes an exact circle; its use is varied, as it does equally well to punch out a border to a pattern formed of a succession of rounds, or to indicate with one clear cut holly or hawthorn berries in clusters on the design, or other small circles. The blows struck out with this tool must be sharp and decisive, and if repeated the tracer should be placed accurately over the first-made impression.

Any of the above tools may be used to form designs upon the background, and besides these there are the star and chequer already mentioned; the triune, with three lines diverging from a common centre; the crescent, shaped like a moon in its first quarter; the light point that makes small dots, and any other device the worker's fancy desires, and that he can have made at an ironmonger's, or file down himself.

To produce an effective background is one of the great secrets of success in repoussé; to simply beat down the spaces left between the designs will not satisfy after the handling of the tools is learnt, and when this is acquired the worker seeks to render his articles perfect by the minute and careful arabesques upon the background, the high relief of the pattern, and the delicate lines chased out upon the latter to indicate the form of the object or shading.

To illustrate some of the backgrounds that can be attempted fig. 1 is given. This design gives the third of a finger-bowl or round flower vase. To reproduce it the round piece of brass should be procured, and its interior filled with pitch before the design is traced. When the outlines have been marked out with clear lines, the ground behind the figures, animals, and birds is beaten down well so as to throw these objects into high relief, and when sufficient relief is thus obtained, fine lines are made with the edge of a pointed tool just beaten haphazard over the spaces. The parts between the medallions are treated in a different manner; their straight or curved lines are traced with a pencil, and then beaten down by using the straight or curved tools that have already been mentioned. Only upon the places heavily shaded in the illustration is it necessary to beat down the ground in the ordinary manner.

In fig. 2, representing a small tray, of a size useful as a pin or cigar ash tray, or as a tray for holding small flower vases, match boxes, etc., the dots made by using the round tool are shown. The round circles shown on the beaded border and the dots ornamenting the double triangle in the centre are produced by repeated blows upon round tools whose size corresponds to the circles made. To produce sharp and clear impressions, the tool must always be held exactly over one spot while that particular round is being beaten down. Most good work is surrounded by some kind of narrow border, and that made with a succession of fine rounds, either close together or at set distances apart, will always be found effective.

The cut-out edge of the tray shown in fig. 2 is managed by tracing its outline and cutting it round with a pair of shears, then turning the work wrongside upwards and beating the parts with a hammer. Unless the amateur is expert, he had better leave this edge to a professional to finish, or make it as an uncut into circle.

After the outline lines to the pattern, and the delicate working up of the background, have become easy, the next stage is the bringing out of the design in its various parts into more or less relief. By beating down backgrounds, the brass left untouched by the tools will form the depression of the other parts, and stand out as if pushed forward, but this relief will be uniform, and no particular part will be raised above the whole surface.

Such extra relief is required when working out faces, to bring into prominence the cheeks, nose, and brow; it is also required to imitate the roundness of plums, oranges, cherries, and other fruit, and to bring out in landscapes the trunks of trees, and other foreground objects, or the figures of birds.

This extra prominence is managed when the work has been removed from the pitch, and replaced with the beaten-in side upwards. The parts to be thrown into higher relief are now the depressed portions, and tools of peculiar make are used upon them to increase their depression. These tools are of various sizes to fit their various duties, and their finals are round and convex. Upon the spot that is to be most prominent, the convex tool that fits it is placed and gently beaten with the hammer until it becomes more prominent than the parts surrounding it. The tool is shifted a little now and



FIG. 3.—CABINET PANEL.



again, so that the relief is graduated from the highest part to the sides.

A tool similar to the rounded one, also made in various sizes, is used to force into relief such fruit as almonds, pears, figs, and objects that are smaller at one end than the other, and yet round in form. This tool is also useful to push out stalks of flowers, any flowers of a bell shape, patterns of mouldings and borders, oval leaves, and parts of the wings of birds and conventional animals. The tool is of an oval shape, and though convex at the end, less so than the rounded tool.

After the work has been thrown into higher relief the chasing of fine lines upon the pattern may require touching up. These fine lines, that give with their few touches so much expression to the design, are worked with any fine-pointed tool lightly beaten down on the surface. They can be done after the outline is worked and the background finished, and before the work is turned, if the relief is not required to be great; or the brass can be again fastened to the pitch, and the lines chased as the final working. These lines consist of the features in heads, with details of limbs, drapery, and jewellery, the shading of rounded fruit by a few round strokes, the marks upon flowers, the scales of fish, feathers of birds, etc. When making these chasings, work in as few lines as possible, and indicate what is intended by a few clear and perfect strokes in preference to a number of blurred and unmeaning lines. The amount of chasing required upon small figures, birds, and animals is shown (fig. 1 and fig. 3). The cabinet panel illustrated in fig. 3 is a difficult design, and only intended for good workers to copy if attempted in the size given; but it is a design which is capable of being enlarged to twice its original size without losing in attractiveness. Four specimens of groundwork are introduced into this cabinet panel in order to show some of the fancy backgrounds that can be done. The design, besides being used for a cabinet panel, is fitted for an over-mantel space, or for the back of a candle bracket; it could also be used for a door-plate, but is rather too elaborate for the latter, a simple pattern like that shown in the first article being good enough for that purpose.

When the piece of brass is sufficiently worked up, and is warmed and finally removed from the pitch, it will sometimes appear uneven, and curled up at one side, instead of being quite flat. To remedy this, place the piece upon a flat board, and beat down its sides and edges with a wooden mallet until they are straight, and should the beaten-down ground look crinkled, touch that also with a small and light hammer. The edges of brass objects cut out at home from sheet brass require to be flattened, thickened, and finished by being beaten down, and slightly curled over on the wrong side, while door-panels, mirrors, and other flat articles are backed with a plain sheet of metal to hide the beaten-down under-surface. This background is generally attached for the amateur at an ironworker's; there is no particular difficulty in attaching it neatly, but the process must be learnt.

Brass, when sold in rolls or sheets, is dull in hue, and must be polished and cleaned after the work upon it is done if its surface is to be bright and shining. Wash it thoroughly with vinegar and salt, and then dry it. When perfectly dry, warm the article, and while still hot rub it with rag steeped in oil and rotten-stone, or in methylated spirits. Put on several coats of one of these mixtures, and do not discontinue the process until a bright surface is obtained. When the brass article is in constant use, clean it every week by laying on a coating of cream of tartar made into a paste with water, and when the paste is

dry, rub it off with a small but hard brush, then wash with soap and hot water.

*Articles that cannot be regularly cleaned are lacquered.*—After cleaning these once, and bringing up the surface, buy some shellac, dissolve this in spirits of wine, and lay a thin coating over the article. Use a large brush, and work quickly, as the varnish dries and looks uneven unless applied with rapidity. Methylated spirits are used to thin the shellac, or spirits of wine, if it is made too thick, also to clean off the varnish when it has been badly laid over the brass surface.

There are many ornaments that are enriched by hammered brass-work, and that can be made by amateurs. Amongst these, for flat work, are candle wall-brackets. These are made of all sizes and shapes, but always flat. The designs most suitable are fruit and flower subjects and arabesques.

*Brass Trays*, oval or round in shape, flat with a small raised rim. The largest size tray is useful for a tea-tray, the smallest to place small vases upon, and the intermediate sizes for wall decorations, salvers, and card trays. The designs upon trays are always either Moorish or geometrical.

*Over-mantel panels* are either long or square shaped designs for the long panels, figures, birds, or flowers; for the square, fruit or geometrical.

*Blotting-book Cases.*—The flat piece of brass is made to fit a strong wooden or velvet blotting-case, and is attached to its upper side with small brass nails, for which small holes are punched in the border of the design. These blotting-cases shapes are easily made, are most useful, and can be attached without professional aid. The designs upon them are fruit, flowers, Moorish, or landscape, with large figures as foreground. A variety in shape is an oval piece of brass fixed to the centre of the case, and allowing the velvet or wooden background to show beyond it.

*Newspaper Rack.*—A long square piece of brass is here required. This is beaten out, backed with plain brass, and hung on the outside of a plain brass newspaper stand. It is attached to the rack by holes punched in its upper surface, through which a brass wire is run, and fastened to the outside support.

*Medallion upon Drawing-room Bellows.*—An ordinary pair of small wooden bellows, or a black *papier maché* pair, forms the background, the piece of rolled brass is cut to the shape of the bellows but smaller, holes are punched at regular intervals along the edge and small nails hammered through these holes and into the foundation when the pattern is worked out.

Fruit and flower designs are the best; any design selected is enclosed in a plain border of an inch or three quarters of an inch in depth.

Squares of brass to ornament the front of a coal-scuttle are made and put on like the bellows ornament, as are squares for a four-sided flower pot, and for letting into the sides of boxes.

For round articles the shape is hollowed out at a shop and then filled with pitch, and the patterns are designs that fit the surface, and enlarge or contract as the curves of the article require. The most useful articles are finger bowls, ornamental drinking cups (used for holding flowers), round flower pots, oval and round jardinières, round card-trays and bread-baskets.

Any brass object used for holding flowers in earth should be fitted with a tin lining, while breadbaskets require a plain brass lining to them. The open round coal-scuttles are made of brass of extra thickness to that required for less heavy articles.

Instructions in the work are given in London by Mr. Karl Krall, metal worker to the Ecclesiastical Society, and of the firm of

Barkentin and Krall, 289, Regent-street, also by Madame Amélie, 40, North Audley-street. B. C. SAWARD.

## HOW I KEEP HOUSE ON £250 A YEAR.

OUR DRAWING-ROOM BAZAAR, AND WHAT  
WE MADE FOR IT.



o have a profitable drawing-room sale it is necessary to be very careful about the outlay; it is possible to procure all one requires for a very little money, if one makes up one's mind to suit the work to the materials, not the materials to the work.

I generally apply at the shops at which I deal, for patterns to be used for charity work; in doing this it is best to make the application by letter, as your name is then

entered, and you will probably receive a parcel at the next distribution; it may be of cotton or it may be of woollen pieces. The last packet I received was a large bundle of patterns of French merinoes, of some of which I made little petticoats, matching the shades of colour as nearly as I could; of the remainder I made a quilt. I cut the pieces into nine-inch squares, joined them together with the sewing machine, and lined the whole with unbleached calico. At the sale a lady bought it as a gift for a poor woman.

I have also bought patterns and cuttings from dressmakers and upholsterers. In one parcel I received a lot of strips of cloth and coarse serge; these I made into boys' turban caps—they were too narrow for anything else. As I machine-stitched them and lined them with black cotton twill (at threepence-halfpenny a yard), they were not much trouble to make, and sold easily at eightpence each.

As I made a point of mentioning my intended bazaar to all my friends and acquaintances some time before it took place, at the same time informing them of the object to which the money received was to be devoted, I received several contributions of work, and, what was better, orders for various articles, such as illuminated texts for bedrooms. These I executed to the dimensions wished, and with the texts selected. A crimson plush cushion, on which I embroidered white passion flowers, was also an order. I drew the design on the plush myself in Chinese white, and then worked the flowers from an Easter card.

As regards the best and most saleable articles to prepare, I find nothing sells better than clothing for the poor. There are so many people who have all they want in the way of fancy work, who willingly purchase things they can give away, but these things must be well cut and put together, made to fit a living being, not, what one often sees, a frock apparently for a child of four or five years, with a waist or armhole suited only for the said child's doll.

Children's print frocks sell well, also little washable woollen frocks for babies and children, little coloured petticoats made with high unbleached cotton bodies, boys' thick woollen blouses trimmed with cheap braid and buttons, and children's bodices made out of scraps of flannel, lined. These I make three-quarters high without sleeves; they are very much