

a little free-hand drawing, an original design will be a "labour of love." Another method for producing an original design we saw employed by a grammar school boy with a "mortar board" on his head: wanting a pattern for a letter rack, he doubled a half sheet of note paper together, and with a scissors in about two minutes produced an original design in scrolls, with a centre that did him great credit. Both sides of course were exactly alike, and the pattern was shaped in graceful curves. A number of patterns could be made in this way for almost any article. A very good and cheap method often employed is by placing a sheet of carbonic paper on the sheet on which the copy is to be traced, and the original on the top, when with a style or pointed stick go over the outline, and a good copy will be obtained.

We will suppose the design has been copied by the method indicated, and is now ready to lay down on the piece of prepared walnut or holly. After so doing make the holes in the pattern with the drill, as marked *B*, *B*, and in all the parts of the pattern to be perforated, and proceed to saw them out as before directed. There are a number of very sharp angles in this pattern, and to prevent breaking the saw, and difficulty in turning, do not saw into the angles, but turn round; keep as much as possible on the lines of the pattern, and when the piece is cut out return to the angles, which with a stroke or two of the saw in two directions, will clear them out. Should the wood be damp, you may find the saw clog with saw-dust, when it will be very difficult to work. Do not force or twist the saw, or you will break it, but loosen it entirely from the frame, and draw it out of the pattern. No doubt with the preliminary instructions, a pair of the bookslide ends can now be well finished, as the design is not difficult to cut; but we have not done with the pattern, as in the next chapter we shall give another illustration, and carve the leaves, which will greatly add to their beauty.

Our next illustration is a table easel, to hold a portrait or photograph. It is drawn one fourth the size it is meant to be cut out. In the engraving it measures 3 inches, while it will stand on the table 12 inches high. This must be copied as before described, but parallel lines must be drawn a quarter of an inch apart both ways on the copy, and 1 inch on the drawing paper. But little requires to be said about the easel, except that walnut would be suitable about a quarter of an inch thick. The small piece at the bottom *A* is a little shelf, and must be fastened with glue on to the cross-piece *B* for the picture to rest on.

The pattern of the easel demands a remark or two, and has been selected to this end. While it is desirable in a large majority of patterns to cut round the outside first, yet this is a pattern with small work on the outsides, which, without the support of the outside wood, would be liable to break off in cutting out the pattern of the middle. In the various patterns which come to hand judgment is required in this respect. At first in fret cutting the operator has a difficulty in cutting the centre of a scroll such as is seen in this easel, and round. In cutting these centres, handle the saw tenderly a little at a time, and keep the saw on the line.

There are many beautiful patterns the reader will be likely to cut, which will require judgment in cutting, so as to leave on wood till the last as a support for weak places, which would be surely broken off if judgment is not exercised.

If a perpendicular position is preferred by the operator, the design may be secured in a vice, and cut out, being removed from time to time to suit the action of the saw.

Full-sized patterns for almost any article can be obtained on application to the Editor of the *Canadian Mechanics' Magazine*.

HANGING FERNERIES.

On page 241, we give a beautiful ornament for window decoration. The bottom part is of hard wood, turned, and may be beautifully ornamented. It should be lined with a zinc pan, in which the ferns are to be planted, and covered with a glass shade which preserves the plants from dust and the dry atmosphere so fatal to plants exposed to its influence. They require but little care, and are easily managed. It is a very beautiful design, and will well repay the expense. They are a beautiful and pleasing ornament in any house.

GREEN GOOSEBERRIES make a nice pudding by stirring a pint of them into a pint of batter, and either baking or boiling.

HOUSE ADORNMENTS.

(See page 252.)

Nothing gives a home a more cheerful appearance than a few plants and flowers, and when they are accompanied with tasteful accessories, the fine effect is much increased. The two small illustrations which we give, will, at a glance, show how much such simple articles add to the effect of a window, particularly in towns, where anything in the form of flowers and foliage outside of a dwelling is a grateful relief to the eye when all around is brick and stone. Ornaments of this kind are within the reach of all; there is hardly a mechanic who is not capable of making shelf brackets similar to our designs, and we feel assured amateurs will feel grateful for the hint who wish to present to their lady friends specimens of their workmanship in beautiful brackets for window gardening.

THE PALACE HOTEL, BUXTON.

(See page 249.)

LARGE DRAWING-ROOM.

This room has been decorated and furnished on a scale seldom adopted, in similar establishments. The arrangements of the carpet and furniture are such that the room can be speedily converted into a ball-room, the flooring having been specially prepared for that purpose. The room is 70 ft. by 40 ft., and is lighted by six large windows, the entrance being obtained from the corridor on the west, with an exit to the croquet lawn. The furniture is in the style of the last century, and one is struck on entering with the rich, yet subdued effect which is obtained by the low-toned covering of the furniture, draperies, and decorations, relieved from monotony by the masses being broken up with hand-painted panels of birds and flowers on gold ground. The ceiling is divided into panels of cool buff and pale blue, the ornament being of the same period as the furniture, some of the members being picked out in colour and gold. The large cove over the cornice, extending round the room, is divided into panels, with the signs of the zodiac, and flowers, fruits, and birds, typical of the months, painted by hand.

The walls are covered with an all-over pattern in different shades of neutral green; the furniture is ebonised, with mouldings picked out in gold, carved frieze, bevelled edged mirrors, and panels of figures, peacocks and other birds, and flowers, painted on gold ground. The principal pieces of furniture are a large cabinet, console-table, jardinière, chimney-glasses, and centre ottoman. The architectural woodwork has been carried out in the same spirit, the panels of the doors being filled with stained glass of appropriate design. The carpet is of Wilton manufacture. The room at night is lighted with gas, having a ten-light chandelier of polished brass, with a five-light chandelier on either side, and lights fixed to the mirrors in various parts of the room.

THE CHIRONECTIFORM OR ANGLING FISH.

(See page 248.)

The chironectiform is found in the vicinity of New Zealand. There is also a neighbouring European genus, the lophius, or angler.

This curious fish gains its livelihood by fishing for his fellow fish, and sets a trap with which nature has provided him in the shape of an extraordinary apparatus located on the top of his head. The appendage is a flattened, bony member, covered with a granulated skin, and working on a universal motion joint, and having a thick muscular base. At the free end of the bony shaft is a semispherical gland, resembling much in form the seed vessel of the gum tree (*encolypus*) covered in its front aspect with a brilliant nacreous integument, and having an aperture connected with its interior.

From this gland rise several soft branched appendages with white shining vermiform filaments at the top of each branch. It is stated to crouch close to the ground, and by the action of its fins to stir up the sand or mud. Hidden in the obscurity thus produced it elevates its appendages, moving them in various directions by way of attraction or as a bait. The small fishes which may approach, either to examine or seize, immediately become the prey of the fish.