WALL ORNAMENTS.

There is a great deal of satisfaction in the possession of home-made ornamental objects, because they are the work of one's own hand, and, besides this, they are not obtained by the expenditure of money that might, perhaps, be needed for other purposes.

Ornaments belonging to the wall go a long way in furnishing and beautifying the house. Pictures, carefully selected, are highly effective. Many of the modern photographs, photo-gravures, and photo-engravings which are really meritorious can be obtained for fifty cents or a dollar each. Some fairly good etchings and imitations of water colors are also sold at reasonable prices. The great item in connection with a low-priced picture is the frame; but any one with such tools as are commonly found about the house and with a small quantity of material can readily make a variety of frames worthy of any place in the house.

The simplest frame to make is that shown in Fig. 1. This is made from a narrow flat board of chestnut, butternut, or even ash or oak, having its inner edge rabbeted to receive the glass, mat, and backing. This strip is stained and finished before it is mitered. The staining is done by brushing the strip evenly with a thin coating of asphaltum, or with a thin stain of logwood, or with a stain formed of either of the following dry pigments, burnt umber, burnt or raw sienna, mixed with turpentine and a very small proportion of boiled linseed oil. Chemical ink or writing fluid, reduced with water so as to produce a greenish-gray tint, answers a good purpose.

After the stain is dry, the tint is lightened along the inner or outer edge of the strip, as taste may dictate, by scraping the wood by means of an ordinary wood scraper, or by rubbing the surface down by means of fine sandpaper. It is obvious that the stain may be applied to the wood in such a way as to graduate the tint without the necessity of scraping or sandpapering, but this requires practice.

The tint should be so graduated as to be very light,

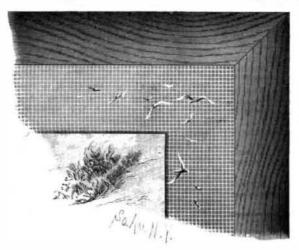


Fig. 1.-WOODEN FRAME.

or nearly the natural color of the wood at one edge of the strip, while the other edge should be quite dark. The strip may be finished by flowing over it three thin coats of shellac varnish, allowing each coat to dry thoroughly before applying the next. The first two coats should be rubbed down with very fine emery paper after they become thoroughly dry and hard. The last coat may be left bright, or its luster may be toned down by means of the fine emery paper. The moulding or strip thus prepared is mitered in the usual way by the aid of a miter box, and nailed and glued together at the corners.

The mat in this case consists of a piece of thick pasteboard in which is cut an opening of the desired form. The edges of the pasteboard are beveled around the opening, and canvas, crash toweling, or white or tinted cotton velvet is secured to the pasteboard by means of book binder's paste (flour paste with glue added). After the paste becomes dry, if desired, a design may be painted on the mat with water colors.

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The frame shown in Fig. 2 is made on a different plan. In this case the wooden moulding is half round on its face. A saw kerf is made at the inner side of the rabbet. The edge of a strip of white or "ivory" zylonite is inserted in the saw kerf, and held there by a thin strip of wood glued in. A small percentage of glycerine or even common molasses should be added to the glue used for this purpose. The zylonite is wrapped around the moulding and fastened by means of a thin strip of wood laid over it and secured by small nails or brads. The corners of this frame are formed by means of rectangular blocks of wood painted white on their sides and furnished on the front with a square of zylonite held in place by an ornamental brass nail.

If a larger frame is required, that can be made with a single strip of zylonite, the joint may be covered by means of a curved half round strip of brass well polished and lacquered, and applied as shown in the engraving

This frame may have a gilt lining as well as the mat. It has a very chaste appearance, looking much like a frame of ivory, and it is withal durable.

A very pretty and easily made wall ornament is shown in Fig. 3. It consists of a number of peacock feathers arranged radially or in the form of a fan with the quills attached to an elliptical piece of pasteboard by means of sealing wax. The pasteboard is fitted to

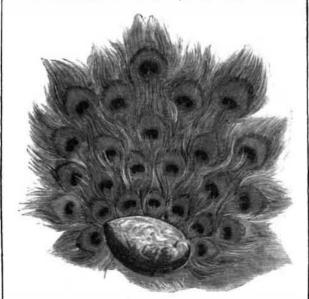


Fig. 3.-FEATHER ORNAMENT.

an iridescent shell and fastened in with sealing wax. A wire loop inserted in the pasteboard serves for hanging the ornament. It may be placed between windows, above or below pictures, and in many other places with good effect.

In Fig. 4 is shown a wall cabinet, which is not only highly ornamental, but very useful. The body of the cabinet is of pine or other soft wood. The doors are arranged to receive the beautiful zylonite bass-reliefs sold by the manufacturers of this superb material. In openings in the back of the cabinet are inserted ornaments of the same character. They resemble ivory and are very serviceable.

The body of the cabinet is neatly covered with canvas, toweling, or lightly tinted cotton velvet, on which are painted designs in water or oil colors. The edges of the shelves are preferably covered with sheet zylonite, although they may with good effect be covered with the material used on other parts of the cabinet. Ornamental brass hinges and taimmings should be applied to the doors, as shown in the engraving.

Between England and the Continent.

The Building News thinks there won't be any Channel tunnel ready for the holiday exodus of architects and students to the Continent this summer; but since Carlyle's well-known and oft-quoted saying seems wonderfully applicable to a large portion of the English nation, who, having a "right little, tight little island," would literally undermine its tightness and rightness by constructing a dry thoroughfare from it to the Continent, there seems some reason to believe that in days that have grown yet more evil, the tunnel will be commenced with serious intentions, be it ultimately finished or left incomplete. Of ideas and schemes there are plenty. What with tunnels and bridges, and a combination of the two means of crossing the silver streak, not to mention the marvelous designs for blowing up or flooding a tunnel at a moment's notice-a fascinating subject to reflect upon, one would think,



Fig. 4.-A WALL CABINET.

when in the bowels of the earth, midway between Calais and Dover!

The latest scheme, the details of which have been and costly list of cash premiums. put before an admiring public, who take it all in for gospel, is that of M. Varilla, a Frenchman, who, aclover the United States and Canada.

cording to the Daily News correspondent, "singularly resembles Napoleon." M. Varilla's scheme consists of bridges, combined with a tunnel. Piers or "bridges" would run out from the shores of either country, and at their extremities would be lifts to lower the trains into the tunnel. There is no denying the originality of the idea, which, it is to be supposed, was conceived with the object of rendering seizure of the end of a tunnel on the Watkin model impossible. Otherwise it might be docketed along with many other schemes as issuing direct from an inventor in Bedlam. The trains on this system would be run some way out to sea, let down 160 feet or 170 feet, run along the tunnel, up the lift in the twinkling of an eye, along the other bridge, or pier, and there you are—if nothing goes wrong with the works.

Electrical Railways.

In a recent lecture at the Franklin Institute, Philadelphia, Capt. Eugene Griffin said: "The success of electrical propulsion has been established beyond a question. It is only a matter of time, and that a short time, when it will replace the horses on the majority of our street railways. It is only a matter of time, a somewhat longer time, perhaps, when it will be the propelling power on all our elevated roads, for the elevated roads possess ideal conditions for the application of electricity. It is within the bounds of possibility that our steam roads will be run with electricity; certainly this power offers many advantages for the suburban traffic in the vicinity of the large cities. The possible utilization of hitherto neglected water powers will be one of the factors in determining the extension of electrical propulsion in this direction. Already we see the beginning. The West End Company, of Boston, are building longer cars, with radial and double swiveled trucks. The New York elevated roads are anxiously seeking a solution to the problem of how to enlarge their carrying capacity without rebuilding or materially altering their superstructures. Longer trains

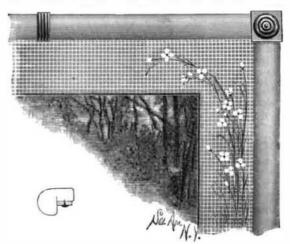


Fig. 2.-ZYLONITE FRAME.

are requisite to meet the increased demands. The limit of the capacity of the present locomotives has been reached. Increased weight in the locomotive means an immense expenditure for strengthening or practically rebuilding the roadway. Cables are not feasible, as the strain on the grip would not permit of long trains, and it would be difficult to combine speed and safety with any considerable increase in the number of trains. Cables would not permit of satisfactory switching arrangements at the termini and elsewhere. Electricity offers the best solution. Equip each car with motors. Flexible electrical connections can easily be made from car to car, as is now done on surface roads, to light the tow cars, and the whole train controlled by the driver on the front platform of the leading car. Electric, vacuum, or air brakes can be used in the same way. It matters not how many cars we have in a train-one or fifty. Each car adds its own power and all work together. There is no dead weight to pull, as in the case of the locomotive. The passengers themselves furnish the weight for traction. The switching arrangements present no difficulties whatever. The motors can be reversed and run equally well in either direction. The train can be controlled from either end and any increase or decrease in the number of cars will not affect the controlling mechanism.

"It is difficult to conceive of a more flexible system. It seems to be the ideal system for the elevated roads, and is bound to be adopted in the near future."

The Detroit International Fair.

Among Western enterprises of large note and importance this year, in which many readers will find departments of direct interest to their business, is the Detroit International Fair and Exposition, to be held in Detroit, Mich.. August 26th to September 5th inclusive. The grounds of this exposition are among the finest, and its buildings among the largest and handsomest of any fair or exposition in the country. It offers a large and costly list of cash premiums. This great fair is continental in its scope, and embraces exhibits from all over the United States and Canada.