



DESIGNING A HOUSE.

A writer in the *Magazine of Art* says: In the actual process of designing a house, the plan cannot be separated from the elevation and sections; the architect's mind keeps playing backward and forward from the one to the other, so that the building grows up in his mind as an organic whole. To put it in other terms, while he is at work on the plan he is constantly considering the effect of his plan on his elevation, and vice versa. The results of the work are duly displayed in plan, elevation and erection; and this, no doubt, leads to the false impression in the lay mind that the plan and elevation can be considered apart, and are not in necessary relation to each other. As the plan is embodied in the elevation and sections—that is, in the actual walls of the building—the two must be considered together in practice. With this provision, there are one or two matters which more particularly concern the plan. The main points to aim at are simplicity and compactness of arrangement and plenty of light. A long, crooked passage, with constant changes of level, may be very romantic and admirably adapted to the habits of the "Decameron," but with the hurry of the modern household and the unworldliness of the domestic servant, it means cold dishes and disaster with crockery, and general discomforts and ill-temper. There has been a tendency lately to overdo the queer corner and the curious passages. I have a book before me, sent out by a well-known firm of furnishers, in which there are half a dozen or more designs for inglenooks and bays and recesses which do not result from any necessity of the plan, but are placed at random with no particular object but that of looking queer. The real old inglenook is quite delightful, with its great cambered oak-beam across the opening, 14 feet wide or more, and its red-brick floors and the old muzzle loader over the chimney-piece, and the little lead-glazed lattice with its dimity curtain; but how far away from this is the affectation of a modern inglenook, with its aggressive grate and mechanically stamped paper frieze and frillings of "art fabrics." If you are going to have an inglenook, at least keep it plain and solid and comfortable, and have a hearth before which you can stretch your legs, and a fire place big enough to burn a reasonable, good oak log. So, too, with the passages; let them be wide enough for two people to pass, and light enough to prevent their falling into each other's arms. In country houses the position of the sitting room is usually determined by the aspect, and in a house of any pretension there is sure to be a good-sized hall and ample stair case; but the hall is worth a sacrifice, even in smaller houses. The first impression you form of a house is very often the last, and your first impression is formed in the hall.

It is not in the least necessary that it should be two stories high. Some of the most charming little halls in seventeenth century and modern work are long, low rooms, sweet and homely to live in, places never haunted by the ennuis of magnificent dreariness. For moderate house the one-story is rather an advantage because it practically gives another sitting room, and in quite small country houses, such as those that are used, say, for summer holidays, why not return to the plan of the yeoman's house of the sixteenth century and earlier, when one great hall was the general living room, and at one end were the kitchen and offices and the servants' rooms, and at the other the solar and the rooms of the master and his family? A house costing less than \$5000 could have room enough for a billiard table or a dance, such as would be quite impossible in the stuffy, respectable house up the village built by the squire when he came of age. The reason for such a room would not be mere picturesqueness, but its manifold uses, its essential reasonableness, and the same reasonableness would not be afraid of the plainest work; of showing the rafters or the ceiling joists, or of lining the back of the fire place with honest red brick.

TO PUT ON HARDWARE.

By OWEN B. MAGINNIS.

All working parts of joinery have moveable fixtures to secure them to those parts which are fastened or permanent. So fixings, or as they are better known "hardware," are manufactured for this purpose. By "hardware" is meant the iron and brass hinges, locks, etc., which are placed on doors, windows, and such like, and the purpose of what follows is to show the carpenter how to put it on properly.

Should the doors be of various heights, take two standard distances, say nine from the bottom and six from the top, or if desired, place the hinge just below the bottom edge of the top rail, and above the top edge of the bottom rail. Mark the two ends of the hinge with the point of a penknife, then set a gauge to suit the width which will be necessary to let the hinge into the door-edge, which width will be regulated by the width of the hinge itself and the thickness of the door, in order that the screws which are to hold the hinge may be turned solidly into the wood and still leave a $\frac{3}{4}$ or $\frac{1}{2}$ margin. A second gauge will require to be set to the thickness of the hinge, allowing a little margin, that when it is let into the beveled edge of the door, it will come about square to the face. It must not, however, be so much sunk as to cause it to hinge-bound when hung. When the sinkage is made in the edge, the hinge can be inserted, and if it be a loose jointed or loose pin hinge, one piece may be set in and the pin side kept up. Should the hinge be a cast iron or japanned one, the end of the handle of the hammer might be used to knock it into place, but if it be of lacquered, bronzed or buffed brass finish, a neat clean block of soft white pine must be brought into use to avoid injuring the polished surface.

The hinge should not be made to fit too tight, as it may be found necessary to take it out again, and if it fit too closely there is a liability of spawling the corners in doing so.

Brass screws must always be driven with a firm, square edged screw driver and care must be taken, that the point does not jump out of the slotted head of the screw, so as to mark and scratch the wood.

In hardwood finish, brass screws should be well bored for with a German bit, and they should be slightly greased with a little soap or beeswax before being placed in the hole.

It is scarcely wise to hammer brass very much as brass is a soft metal, and the screw is liable to bend under the stroke of the hammer.

When the hinges are screwed on the door edge, place the door in the frame in the rebate, and wedging it up from the bottom so that the top edge will be an easy point, mark the positions of the hinge sinkages, (with a pocket knife) and cut out the wood as before, avoiding sinking it too deep, lest it should be found necessary to block out the hinge again with shaving or paper. It is better to pare out a little than do this, but care must be taken that it is not what carpenters call "hinge bound" which means that the hinges are sunk in too much, and the hinge joint is too close.

The only way to become an expert door-hanger is by practice, and care should be exercised while learning in order to put the hinges on without injuring them and make the door work properly.

Single and double action hinges are much more difficult to put on than ordinary single action butts, still the makers give the carpenters great assistance by sending printed directions with sketches in each box showing the lock in position and in parts. This enables him to comprehend the way they should be set, and the directions and sketches ought to be thoroughly studied and understood before making a mark or using a tool. On no account should metal hinges be struck with a hammer as they are liable to fracture. Those of brass will stand a blow, but usually show the effect in bruise or dent.

Ordinary brass-faced mortise locks need nice fitting and require to be set in flush with the door's edge, and not project if the edge is beveled. Brass door-knobs and escutcheons ought, in all cases, to be covered with linen, to prevent rough, sandy hands from scoring their polished surface. Tie the keys to the knobs or, if this be risky, put a marked and numbered tag on each, in order that its lock may be readily found.

Patent door springs have printed directions, which must be adhered to to insure satisfactory working. Yale and other special locks need special cutting, and, therefore, a good mechanic to put them on right; but the sketch in the box is a wonderful aid to novices. These locks ought never to be taken apart, on account of their intricacy. An error of this kind once cost the writer much expense and delay and a good wetting bringing it to the manufacturer's depot for readjustment.

In regard to sash locks there is little to be said, except that they require to be put on so as to rattle lock the window—namely, bind it close together at the meeting-rails, besides preventing the sash from being moved. Fasten on escutcheons perfectly plumb and drawer-pulls level, and the slots of the screws in a line with the work. For instance, in escutcheons, finger-plates, hinges and lock-faces all the slots should be kept plumb, and no drawer-pulls, door-pulls, or any brass, iron or silver work, kept level or horizontal. English ship-joiners never put their screws in any other way but this.

The hardware of sliding-doors run on a track on the floor consists of the sheaves or rollers, the track on which they run, the lock and fittings and the iron door-stop above.

In fitting in the sheaves, the main thing is to get them in the centre of the edge, to bring the two doors fair and to have them project equally. The doors ought, of course, to be fitted till the joint comes, and when the inside wood stop is mortised in and cut the two can be set on the track—which, by the way, comes in two lengths—and the sheaves regulated till the doors close tightly. Enough should be allowed from the floor for carpet