## Chapter 21

# FINISHING THE ATTIC AND BASEMENT

WHEN the time comes for you to finish off the attic, you will find that if you made the necessary provisions when doing the house framing and setting in the utilities, the job will not be hard.

#### **Dormer Windows**

The first step is to install the dormer windows. As the rafters have already been framed to take dormers, you have very little extra work to do besides the actual building of the dormers themselves.

As it will be necessary to make an opening in the roof, this sort of work should be done in mild weather and you should have a large piece of canvas on hand so that the opening can be covered up in case of rain.

If you are careful in removing the roofing at the point where the dormer is to be installed, you may be able to use a lot of this material for the dormer. Do not remove any more of the roofing or roof boards than is necessary. If you take off too much, you will have to spend a lot of extra time getting it back on.

Once the opening has been made, the rafter that was set in at the dormer

opening in the roof frame can be removed. As this was only nailed in place, it will not be difficult to take it out. After it is out of the way, the opening in the roof is ready for the dormer and you can go ahead with the job just as if it were being built during the original construction. See Chapter 8.

#### **Side Walls and Partitions**

Step number two in finishing off the attic is to build up the side walls and the partitions. The side walls are made by first tacking a  $2'' \ge 4''$  sole plate to the attic floor 5'5'' from the eaves. This will give the sidewall a height of 4'6''.

When the sole plate is in place, the vertical studding is put in. This will be nailed at the base to the sole plate and to the side of the roof rafters. Fig. 1 shows the manner in which the tops of these studs are cut so that they can be nailed to the roof rafters. Study the framing plans for the attic and notice that some of the sidewall studs have been omitted. This is to leave large openings into the area in back of these walls for storage purposes.

The partitions in the attic are framed just like the house partitions. A 2"x4"

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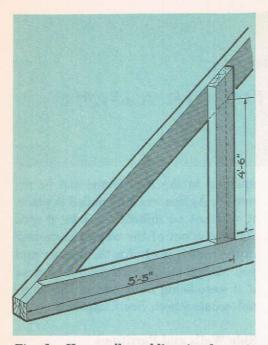


Fig. 1. How wall studding in the attic should be cut to join with the roof rafters.

sole plate is nailed to the floor and a top plate is nailed to the edges of the collar beams. Studs are spaced 16" on center.

## Insulation; Wiring; Plumbing

Once the partitions have been put up, the attic space should be insulated. Of course, if you have insulated along the rafters and across the collar beams, further insulation will not be necessary; but if the attic floor was insulated, then the attic rooms should be treated in the manner outlined in the chapter on insulation.

Electric wiring can now be installed in so far as bringing in the wiring and wiring in the outlets is concerned. Plumbing and heating lines should be brought up into their proper location and the position of the plumbing fixtures should be roughed out.

Note in the attic floor plan that to get the necessary headroom, the shower stall has been pulled out towards the center of the bathroom. Be sure that you do not use a shower stall that is any higher than the one given or, if you do, that you bring it out to a point where it will fit.

If you wish—and it is a highly desirable feature—a window can be installed at each end of the attic. They will provide a good deal more light and air.

From here on out, finishing off the attic is just the same as for the other rooms in the house. Interior wall and ceiling materials go up, and these can be the same as used elsewhere. Interior trim and flooring go on and the attic is ready for living purposes.

#### FINISHING OFF THE BASEMENT

This is the sort of job you can do after the rest of the house and grounds have been completed, or you can wait even longer and do it whenever you have the energy. For the most part, it is not a good idea to try to do anything with the basement for several months after the house has been completed because, in the first place, the poured-concrete masonry may not as yet be completely dry and the dampness will be difficult to get rid of no matter how hard you try. Second, by not covering up water and heating lines, you will make it a lot easier on yourself in case there are a few little errors here and there that show up after you have lived in the house for awhile.

The first thing to do before you make any plans for the future use of the basement is to make certain that the floors and walls are dry. You are very apt to find that they are damp, but this is more likely the result of condensation than of a leak in the concrete. In most cases, after the concrete has had time to become dry throughout, the dampness can be taken care of by providing the basement with plenty of fresh air.

If you do not plan to use the basement for anything more than a workshop, storage area and so forth, you can finish it by merely giving the walls a coat of cement paint. This will make the place a good deal lighter and the walls will be easy to clean when necessary. If the floor appears to be sanding or dusting, a coat of concrete hardener will take care of this condition.

If a portion of the basement is going to be used as a play or game room, you should partition this part off from the space containing the furnace, hot-water heater and other utilities. The same sort of construction is used here as required for interior partitions discussed earlier in the book. The side of the partition facing the furnace should be covered with asbestos board, and the ceiling too. This will provide a certain amount of protection against the possibility of fire in this area.

The ceiling in the game room should be covered with either wallboard or plywood, and it is a good idea to insulate between the ceiling joists as this will reduce the amount of sound coming up through the floor. You may find that it is necessary either to recess some of the pipes running across the ceiling into the joists or to make a false ceiling under the pipes. Be sure that you will have sufficient headroom after the false ceiling is in position.

The walls of the basement should be lined with some type of wall material and it should be furred out from the masonry. Sometimes plaster is applied directly to the masonry, but this often becomes damp and musty through condensation. It is better to keep the interior wall material away from the masonry.

Be sure to leave openings in the wall so that you can get at plumbing valves and the like without having to remove an entire section of the wall. Small openings for this purpose can be fitted with doors.

As for the basement game-room floor, it can be painted with special floor enamels suited for this purpose or covered with clay tile. If you are absolutely sure that the floor will not become damp, it can be covered with wood or some type of composition flooring that is recommended for this purpose.

## Steps

Basement steps should have treads about 9" wide and risers 8" high. You can make the stairs out of pre-cast concrete stair units, but for rough work of this type a poured staircase is suitable.

The first thing to do is to make a form. This can be done with lengths of 8" wide stock set on edge to act as forms for the risers. No form on top for the treads will be necessary as the concrete can be mixed thickly enough so that it will not flow over. The forms can be held in place by driving wood wedges between their ends and the foundation wall. Additional bracing can be made from lengths of any odd stock you have on hand. Place it from the middle of the form to the rear wall of the stair well.

When all the forms are in place, the concrete can be poured. The surface should be troweled to a rough texture to provide a firm footing.