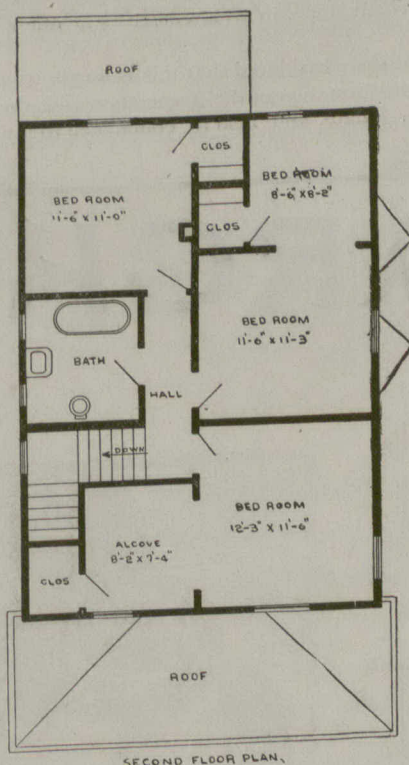
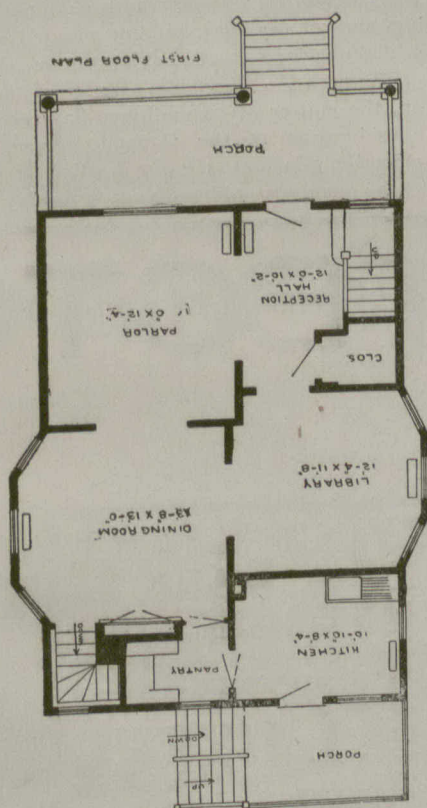
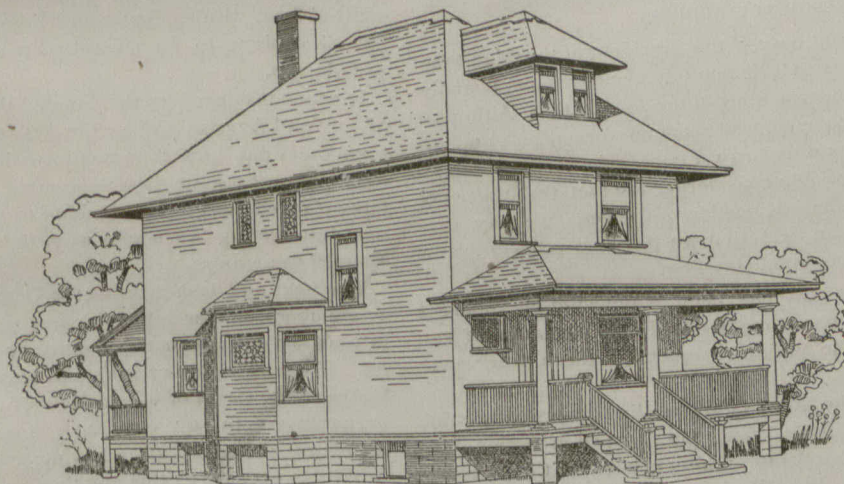


are burned in a down draft kiln. The sawdust soon catches the fire, and helps to burn the blocks, and after burning out, the small pores are left, making the blocks quite porous or vesicular, so much so that the blocks are very light and can be used for ceilings, arches, domes, roofs, partitions, etc., or for any of the purposes to which heavier timber would be used. These blocks are so porous that nails, screws, spikes, etc., can be driven into them with about as great ease as into timber. The rough porous blocks serve admirably to plaster onto, so that a building of any shape may be covered by them and plastered over and painted. For this reason most of the interior decoration now seen in large buildings is accomplished in this way.

The discussion of grogs so far has been confined to different substances that are added to the raw material. There is one

coal takes fire and helps to burn the brick, and at the same time creates an extra draft through the heads, which soon draws more of the kiln fire to those parts. This act should be repeated every hour, letting only a little of the coal trickle down each time, so as not to choke the drafts or cause too much fire in the heads. By this process your kilns can be burned right to the scoving. I have seen them done, and good red face brick shipped from against the scoving. In down draft kilns, of course, the fire can be drawn to any part of the kiln by the use of dampers.

I have confined all my remarks to this one division of clay manufacture, because I am convinced that it is a most important matter to you all, and I am sure it is one that has not received its share of consideration on your part. These are not experiments, they are points that are in use by suc-



DESIGN FOR A MODERATE COST HOUSE.

new use for grogs now which may not be well known to you all. All of you who are working with the ordinary scoved kiln or dutch clamp kiln have experienced the difficulty of burning the brick right to the outside of the kiln. This has been aided in many ways, e.g., by leaving the heads more open in piling, to cause more draft in that part; or again the centre of the kiln may be covered on top by mud, or by asbestos sheets, thereby throwing the draft to the outside around the edges. But a new and much better method may now be used. This consists in placing a row of hard coal screenings, which are cheap, around the edge of the kiln on top. The ridge of hard coal is about 18 inches wide and rounded up like a potato ridge. In setting the kiln the heads are left open as usual, and a row of skintlers are usually placed on the very outside row. After the kiln has burned up considerably in the usual way, and when the heat begins to get up through the heads, the kiln man goes up on top and by the use of a small wedge like a poker he works the brick a little and allows a little of the coal to trickle down into the kiln. This

successful clay workers, and I hope I have been able to arouse your interest in this great department of your work.

DESCRIPTION OF DESIGN FOR A MODERATE COST HOUSE.

Frame house of seven rooms, two alcoves and bath. Basement walls are of concrete to grade and cement blocks from grade to first floor. Bath is extra large in size being seven feet and four inches by eight feet and six inches. Main body of house 24 feet wide and 34 feet long. Plain oak to be used for finish of first story except in kitchen and pantries and finish of second story is of red birch. Plain oak floors are provided for first story except in kitchen and bath room. Maple floors are used for balance of house. Building is heated by steam. Estimate cost is \$2900.00.