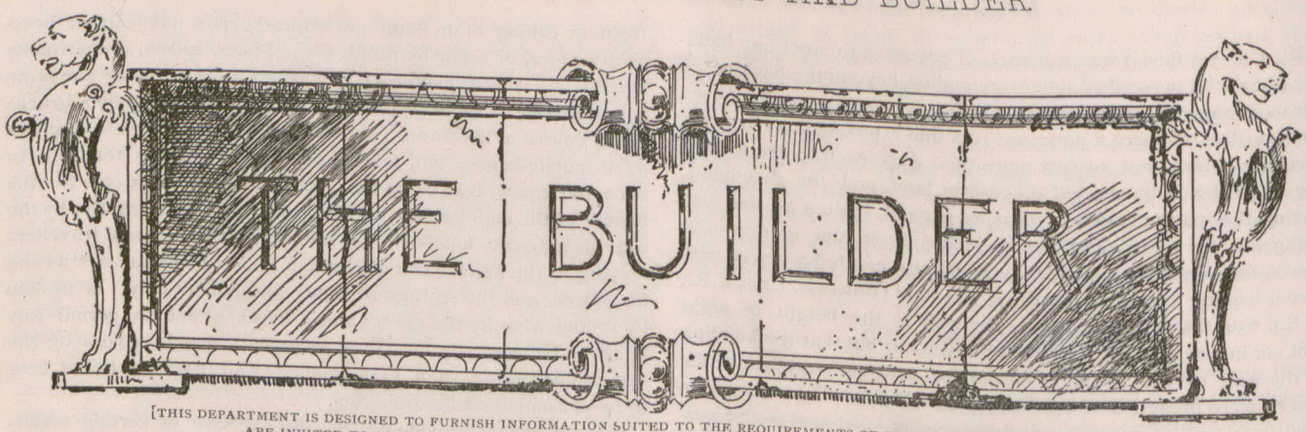


[THIS DEPARTMENT IS DESIGNED TO FURNISH INFORMATION SUITED TO THE REQUIREMENTS OF THE BUILDING TRADES. READERS ARE INVITED TO ASSIST IN MAKING IT AS HELPFUL AS POSSIBLE BY CONTRIBUTING OF THEIR EXPERIENCE, AND BY ASKING FOR PARTICULAR INFORMATION WHICH THEY MAY AT ANY TIME REQUIRE.]

**Outside Boarding.**

Our neighbors to the south have a better way of boarding the outside of their baloon frames than is generally practiced on this side of the line. As a rule, stuff fairly seasoned is used, and instead of placing the boards on the wall horizontally, as is the common practice with us, they are nailed on diagonally, at about an angle of 45 degrees, reversing the angle on the different sides. This method has the effect of making the frame very much stiffer and rigid than when the boards are nailed on horizontally. Of course, the boards, to serve their best at stiffening the building, should be laid on the building with their joints close together and well nailed to each and every stud. A house boarded this way inside and out, with the order of the direction of boarding reversed, and the work fairly well done, will never budge in itself. It cannot be blown to pieces nor shaken by the wind. It may be blown over like a dry-goods box under heavy wind pressure, but such a thing as being torn to fragments would be out of the question. If the house is intended to be veneered with bricks, the necessity of boarding diagonally is much greater than if it is intended to be sided or rough cast, as the wind pressure on the roof and gables is apt to cause a movement in the framework, which would act detrimentally to the brickwork, cracking the walls and causing other serious defects. If the house is to be rough-cast, the boarding should by all means be nailed on diagonally, and the lathing also should be put on the same way, only in reverse order to the boarding. The cause of cracks and breaks in rough-cast houses is because the frames have not been made rigid enough, or because the foundation was not sufficient and has settled, or because the material was unseasoned and shrinkage resulted. A rough-cast surface on a stiff frame will last a lifetime.

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**Seating Space.**

It often happens that a country contractor is called upon to make a rough sketch for a rural school, church or hall, and he is instructed to design the building to accommodate a given number of persons, and in order to construct his building to the proper dimensions to meet the requirement, a knowledge of the space required by a single person to be comfortably seated will be requisite. There is no general rule in universal practice that covers this question. Boards of education, architects, chairmen of church boards and others, in this and other countries, have endeavored to formulate certain dimensions to be used for each individual present in a hall, church or school, but, from some cause or other, unanimity of figures seems impossible. Generally, the following figures will be found to answer all ordinary conditions: For halls, allow 18 inches frontage and 24 inches depth. This gives ample room, and in cases of emergency could be reduced to 15 x 20 inches, but this would necessitate some crowding. Of course, a great deal depends on the style of seat used. If orchestra chairs are used the space may be reduced somewhat, but if the old-time wooden seats, benches or pews are provided, then the full dimensions of 18 x 24 inches should be maintained. Desks used for scholars in the public schools should be, for two scholars, 3 feet 10 inches long, with a seat the same length. Here it will be seen that a new condition arises—desk room as well as seating room will have to be provided for, and to give the greatest amount of comfort and allow for passage ways between desks, each scholar will require a space of 33 x 33 inches. Seats for scholars five years of age should be 9½ inches high; ten years of age, 13¼ inches high; fifteen years of age, 15½ inches high; over 15 years of age, 16¼ inches high. Besides the space allotted for an audience, congregation or scholars, ample provision should be made for a platform, on which will be situated pulpit, reading desk, choir stand or other necessary furniture, according to the uses for which the building is intended. A little study of the foregoing will enable the country contractor to strike very nearly the size of the building required.

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**Seasoned Lumber.**

All country contractors should, wherever possible, keep a stock of well-seasoned stuff always on hand. A few thousand feet of fairly good inch lumber kept in stock and well piled will not only come in handy, but will be a good standing advertisement for the contractor. Everybody knows that good lasting work can not be made with lumber or timber that is only half seasoned, or not seasoned at all, and the contractor that can say to his intended client, "I have all the stuff in my yard stacked up that will be required to build your house," stands a much better show of getting the work, and getting a better price for it, than the man who has to go to the mill and order his stuff to be cut from the green logs. This not only applies to planks and boards; it is equally applicable to joists, studding and rafters. It is just as important to the fixedness of work, that the joists and studding should be well seasoned, as that the doors, flooring, sashes and wainscot should be formed of good dry material. The shrinking of joists is often the source of much trouble, as all the floors, from attic to main floor, settle down to meet the changed conditions, causing doors to bind at either top or bottom, changing the relationship of locks and keepers, breaking plaster at angles of walls or cracking it over doorways, dropping wainscot and base-boards on partitions below wainscot