



[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.]

#### Items in Estimating.

THE tendency of the country builder is to overlook small items when estimating cost of a building, or to "bulk" a lot of small things together. Both these methods are wrong and likely to prove embarrassing and costly in the end. Every item should be figured on, then the style and finish should be considered, also the quality of material used. A few items are given herewith in a general way, merely to show the manner of dealing with them as they present themselves. Get the entire surface of the floors in square feet, add one-fourth for waste in fitting, etc., and if the stuff is more than one inch thick, make provision for extra thickness. Two men working together will lay more flooring in one day than one man alone will lay in two days. Two men working together will lay five or more squares a day. Five pounds of nails are required for each square of flooring. Ordinary 2" x 4" partitions should not cost more than two cents per foot running measure for labor. Doors and door frames should be estimated at so much an opening, including door, hanging, fitting and completing, exclusive of cost of material and fittings. As doors on each flat vary in size, finish, and style of fittings, each door should be estimated separately. Estimate cost of materials, locks, hinges, nails and screws according to specifications. Don't overlook closets, but make provision for shelves, wardrobe hooks, hook strips and such other fittings as specifications call for. Linen closets are often fitted up with drawers, shelves, small cupboards with doors, etc.; figure on each item, including hardware attachments. Base should be figured on as moulded, unless it is perfectly plain, then it may be put down as dimension grade lumber. Cost of laying base will vary with the style and number of members in the base. Where rooms are wainscotted (matched stuff), take surface measure and add one-fourth; count cap and shoe as mouldings. Bathroom finish should be estimated carefully according to specifications in the absence of details; top for bath tub and front, weather panelled or ceiling; water closet seat and front, wash stand front, drawers and door, water-tank and covering for pipes, and all cutting for pipes usually done by the builder. Mantels of wood or other materials should be carefully figured, ascertaining as nearly as possible the design and work necessary to place them. In estimating stairs, if the builder intends building them himself, he should figure the lumber in the wall and face strings and center bases, cost of housing and cutting same, lumber in treads and risers, and cost of preparing same; figure all newels separately, hand-rail by the foot, balusters by the piece, labor and nails for setting up if soffit is panelled or ceiled with matched stuff or prepared

for plastering. Fitting and hanging sashes: Cost of hanging may be ascertained by the number of pounds in the weights, cost varying by cost of iron. Plastering is measured by the yard, and great care should be exercised in estimating it in order to get the correct measurement. Angles, closets, spandrils, soffits, and everything, should be measured. If it is desired to estimate the lath separately, about 14 lath will cover one yard. One man will put on about 300 yards of lath in one day. Plastering, including lathing and furnishing all materials, is frequently done from 20 to 30 cents per yard, according to the number of coats and style of finish. These may be accepted as pretty low figures. Plaster courses are estimated by the foot running measure, the cost varying according to style and width. Angles and mitres count so much a piece, measurement always taken from the longest points. Painting is estimated by the yard, and requires as careful measurements as plastering. Special work, such as graining, staining, varnishing or polishing, is paid for by the piece or by special arrangement. These are but a few things, but they will give the estimator an idea of "how to proceed" in estimating.

#### Chimneys and Flues.

It is a well-known authenticated fact that nearly 75 per cent. of all the fires that occur in dwellings, and very many other buildings, have their origin in defective flues. This percentage could be greatly reduced if the builder would exercise a little more care in the construction of his chimneys and the proper distribution of the woodwork around them. Chimneys should be built from foundation to coping clear and independent of any woodwork. Where the stack passes through a floor or roof, the trimming timbers should work clear of the brick or stone work at least one inch, and the roof boards and flooring should clear the stack nearly as much. The slate or shingles will of necessity be close to the brickwork, but should be so put as not to interfere with the chimney's settling—for all chimneys will settle a little—for should the roof covering prevent the upper part of the chimney from settling along with the lower part, the stack will break at the line of junction with the roof, and the crack may be large enough to admit sparks and smoke, and the house may take fire from this cause. The same argument applies to the floor; the woodwork must be kept clear of the chimney. No flue should be less than 8 x 8 inches, or the length of one brick square in the clear, and this size should be maintained from bottom to top, regularly built—not contracted at some points and expanded at others. The walls adjacent to the flue should be laid close, and every joint of the