It is possible to construct a partition which shall be reasonably sound proof, but the best materials for this purpose are combustible, and would not be permissible; for instance, in a room containing an oil burner.

In case it is desired to improve an existing wall which is not completely satisfactory, good results have been obtained by means of an auxiliary partition composed of two layers of celotex fibre board containing between them a one inch layer of hair felt. The first layer of fibre board should be loosely nailed to the wall by as few nails as possible, the nails passing through holes a trifle larger than the nail, the head of the nail doing the holding. The nail should not be driven tightly home.

On this is applied a one inch layer of hair felt, by means of as few nails as possible, provided with large washers such as are used in applying tar paper. The hair felt must not be compressed.

The outer layer of fibre board is loosely nailed in the same way as the first board. In this way it is not likely that sound vibrations will pass from one board to the other by means of the nails; but must pass through the hair felt if at all.

Celotex fibre board is on the market for building purposes, being used as a heat insulator. The central office of The Celotex Company is 645 N. Michigan Ave., Chicago.

Information concerning sound transmission through ordinary panels of lath or tile, finished in plaster, may be found in an article describing some recent work of the Bureau of Standards, published in the American Architect (New York) for November 5, 1925. Reference should also be made to Professor F. R. Watson's book on Acoustics of Buildings (John Wiley and Sons, New York, 1923).
It is to be remembered that the transmission of sound from one room to another does not always take place entirely through the intervening wall. Vibrations may be transmitted through the floor; especially in the case of a piano standing on the bare floor. Rugs or pads will do much to prevent sound being transmitted in this way.

Closed doors often allow much sound to pass through an otherwise satisfactory wall. Where a door is not in constant use heavy hangings may be placed over it, and weather stripping applied around it.

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