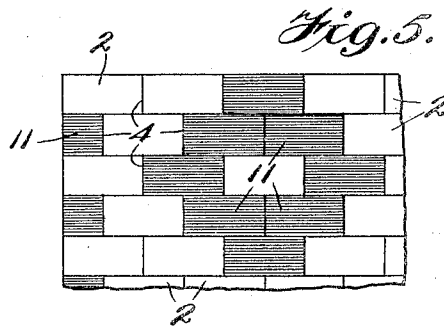
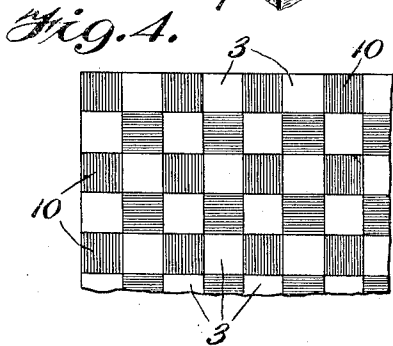
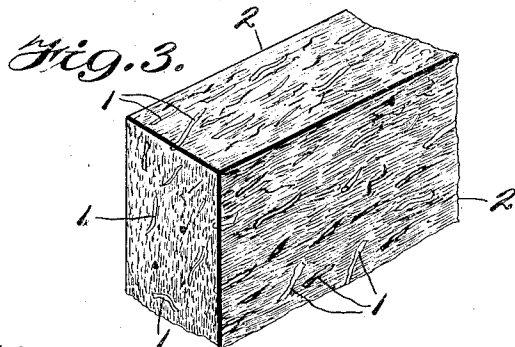
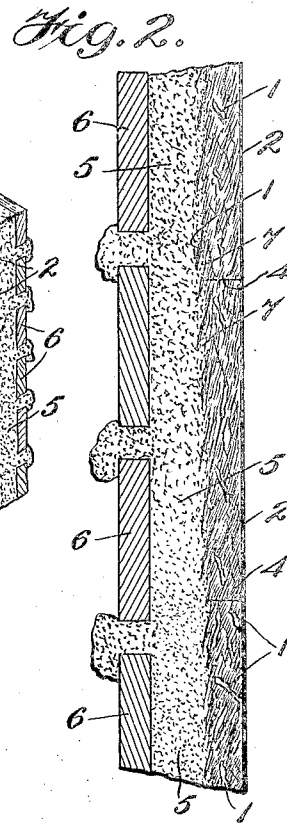
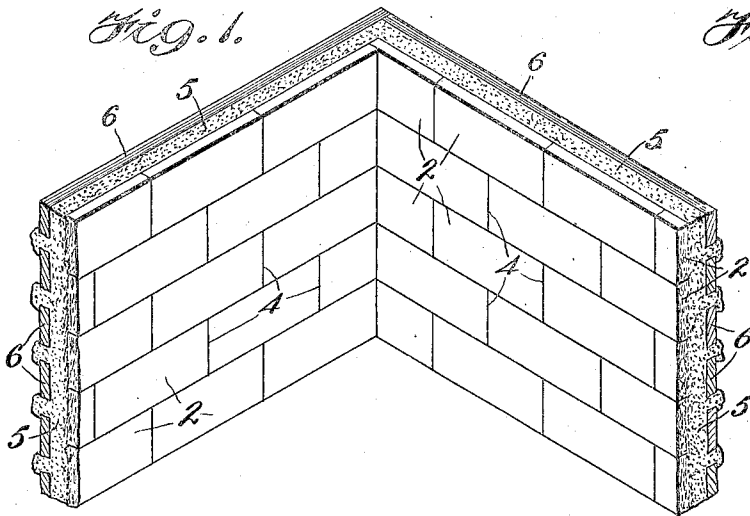


J. K. SHAW.
WALL OR SURFACE FOR DEADENING SOUND.
APPLICATION FILED MAY 23, 1918.

1,383,344.

Patented July 5, 1921.



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WALL OR SURFACE FOR DEADENING SOUND.

1,383,344.

Specification of Letters Patent.

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Application filed May 23, 1918. Serial No. 236,159.

To all whom it may concern:

Be it known that I, JOHN K. SHAW, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Walls or Surfaces for Deadenng Sounds; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a wall or surface especially adapted for deadening sounds, and has for its object to provide a structure of this kind which will be comparatively inexpensive to construct, will be highly ornamental in appearance, and will be more efficient in use than those heretofore proposed.

With these and other objects in view the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claim.

Referring to the accompanying drawings forming a part of this specification, in which like numerals designate like parts in all the views:—

Figure 1 is a diagrammatic sectional view of a wall or surface made in accordance with this invention;

Fig. 2 is an enlarged detail sectional view of a portion of the parts shown in Fig. 1;

Fig. 3 is an exaggerated perspective view of a portion of the "insulite" or paper board material out of which the panels are made;

Fig. 4 is a diagrammatic view showing a modified form of "insulite" blocks suitable for this invention; and

Fig. 5 is another diagrammatic view showing a form of block similar to those illustrated in Fig. 1.

In order that the precise invention may be the better understood it is said:—Some of the problems to be overcome in this invention are set forth in Patent #859,488, July 9, 1907, to Dolmetsch; but this invention differs from the disclosure of said patent in that the paper board, or "insulite" material from which the deadening surface is to be formed differs very materially from ordinary paper board and from other materials which have been heretofore used for this purpose.

That is to say, the paper board is composed partly of relatively very large fibers

or slivers 1 which are sometimes as much as one eighth of an inch wide and one half an inch long. These said slivers are mixed with other fibers which are more of a thread-like appearance, they being say from one thirty second of an inch in diameter to one sixty fourth of an inch in diameter, and one or two inches long. These said sliver-like and thread-like fibers are further mixed with a third class of fibers which are more hair like than anything else which may be said to be from one hundredth of an inch in diameter, to one two-hundredth of an inch in diameter, and one or two inches long.

The above mentioned three classes of fibers are further mixed with other finer fibers and shorter fibers which are or may be identical with those used in the making of paper. All of these various fibers as well as other fibers, not necessary to mention, are felted or compressed together into boards or panels which are of an exceedingly porous nature, and closely resemble cork in their physical properties.

The porosity of this said board material is so great that its specific gravity is not often more than .2 to .3. The result is the board constitutes a heat insulating material of very high quality, and owing to its very great porosity it also constitutes a sound deadening material which is not only comparatively inexpensive to produce, but it is of a very high efficiency in action.

The material is conveniently made in a manner similar to the making of ordinary paper board and is easily formed into blocks or slabs, such as 2 illustrated in Fig. 1, or such as 3, illustrated in Fig. 4. These said blocks or slabs 2 make joints 4 with each other which are preferably staggered as shown, and they are conveniently set in asphalt, paste, pitch, glue, plaster, cement or other suitable material 5 which is conveniently anchored between the laths 6 or on other supports.

Owing to the very porous nature of the said blocks or slabs 2, and owing to the very great differences in the coarseness of the fibers going to make up the said blocks 2, the plaster 5 or other plastic material is enabled to readily penetrate into the interstices between the fibers as is diagrammatically illustrated at the point 7 in Fig. 2. It results from this structure that a firm and very tenacious bond is had between the plas-

tic material 5 and the "insulite" blocks 2, so that the said blocks may be readily laid upon the wet or sticky plastic material 5 and the sound deadening surface thus readily built up. In addition to this, the blocks 2 may be readily colored to imitate stone, wood or other material, and the various blocks may be differently colored as indicated at 10 in Fig. 4, and at 11 in Fig. 5, in order to enhance their ornamental appearance.

In practice it is found that a wall or surface provided with a plastic material such as that illustrated and surfaced with the above mentioned "insulite" blocks is found to deaden the sound with an efficiency equal to that of cork and therefore, it is very useful in hospitals, churches, halls, auditoriums, and in fact everywhere where it is desired to combine quietness with ornamentation.

It is obvious that those skilled in the art may vary the details of construction as well

as the arrangement of parts, and the uses to which this invention may be put, and therefore, I do not wish to be limited to the above disclosure except as may be required by the claim.

What I claim is:—

A sound deadening wall comprising a supporting structure; plaster applied to said structure; a surfacing material in the form of blocks ornamented in keeping with their surroundings and provided with pores applied to said plaster while in its green state, said plaster adhering to said blocks and entering said pores; said blocks being each composed of four sets of fibers differing in coarseness to such an extent that their specific gravity is less than four-tenths and a large proportion of air is entrained in their body portions to impart to said blocks unusual sound deadening qualities, substantially as described.

In testimony whereof I affix my signature.

JOHN K. SHAW.