Oct. 30, 1934. J. DEAN 1,978,625

WALL BOARD

Filed July 12, 1932

FIG. 1

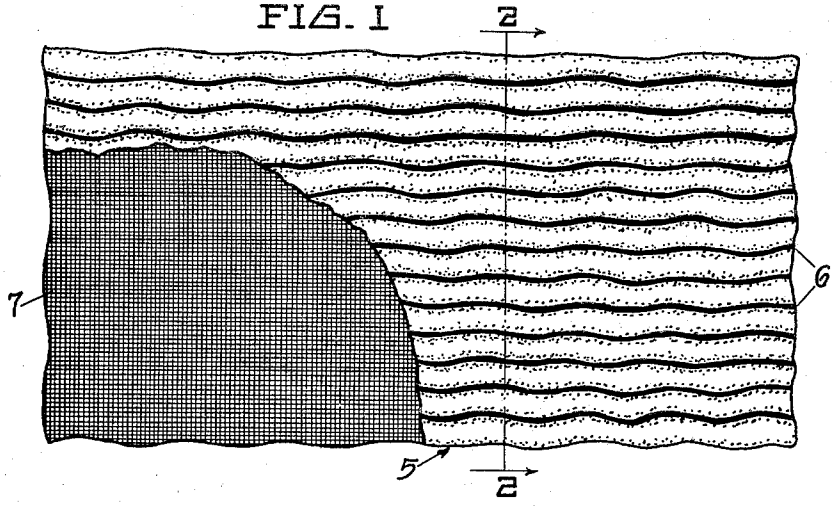


FIG. 2

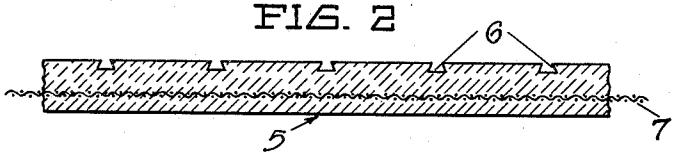
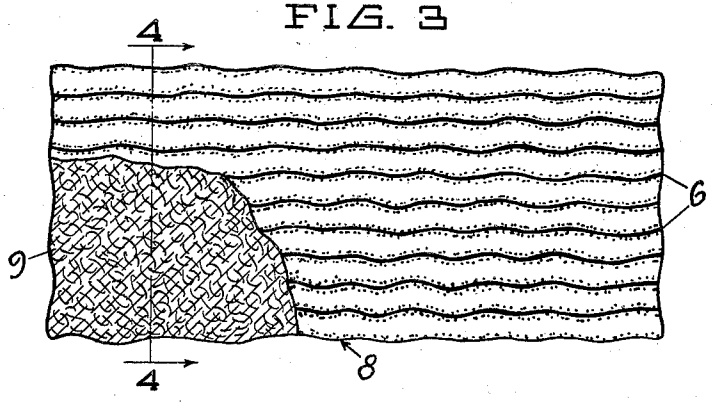


FIG. 3



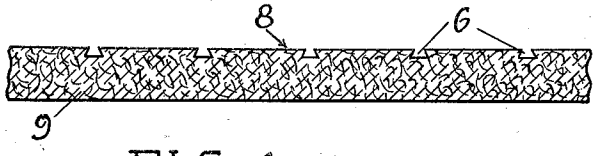


FIG. 4

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1,978,625

UNITED STATES PATENT OFFICE

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WALL BOARD

John Dean, San Francisco, Calif.

Application July 12, 1932, Serial No. 622,049

2 Claims. (Cl. 72—124)

The present invention relates generally to new and useful improvements in building materials and especially to composition wall board having dove-tail keyways for the interior construction in building structures and adds to the acoustical qualities of the structure, as produced by the machine shown in co-pending patent application, filed May 24, 1932, Serial Number 613,187 and is a modified form of the materials shown and described in my co-pending patent application filed July 3, 1931 Serial Number 548,611.

The invention is constructed from plastic materials properly mixed and molded to form slabs having a plurality of dove-tail keyways and consisting of reinforcing means in the body to properly bind the materials constituting the board formula when in a dry state firmly together.

The squares may be of suitable length and width depending on the size of the machine for manufacturing same.

The wall board is particularly adaptable to inside finish work in all building structures and is a substitute for wood and metal lathing now commonly used in such structures, the board in reality is nailed to the building uprights as is the general practice in lathing and the interior plaster finish is then applied to the surface of the board, the dove-tail wavy keyways serve to grip the plaster firmly to the surface constituting a board that will never shed the plaster finish.

The principal object of the invention is to provide a composition wall board of the class described which is cheap to manufacture, durable, and highly efficient as a substitute for lathing in finishing structure interiors.

A further object of the invention is to provide a composition wall board of the class indicated which is provided with a plurality of wavy dove-tail keyways or grooves providing an efficient retaining base for a plaster finish.

A still further object of the invention is to provide a wall board that may be easily and quickly applied to the structure by the building mechanic.

A still further object of the instant invention is to provide a wall board having diagonally cut edges thereof constituting fire and sound proof construction.

Another object of the invention is to provide a composition wall board that is pliable in form enabling the board to be used where coves or arches are prevalent in the construction of building structures.

Still another object of the invention is to provide a composition wall board of the class indicated which adds to the acoustical qualities or other sound reflecting vibrations usually encountered in building structures.

Other objects and advantages of the invention will become apparent with reference to the subjoined specification and the accompanying one sheet of drawings in which:—

Figure 1 is a plan view partially broken away illustrating a slab of the composition wall board showing the wavy dove-tail keyways in which the reinforcing element consists of burlap, a section of which is disclosed;

Figure 2 is a cross section of the slab as indicated by the section line 2—2 of Figure 1 and showing the wavy dove-tail keyways and reinforcing material;

Figure 3 is a plan view illustrating a slab having fibrous reinforcing material as in Figure 4;

Figure 4 is a transverse section of another slab in which the reinforcing material consists of fibrous material, the section being indicated by the section line 4—4 of Figure 3.

The formula for producing the wall board slabs is as follows:—

The ingredients of the composition consist of a mixture of gypsum, pumice, sawdust, piassaba and granulated cork, the latter ingredients being utilized for strengthening the composition and also to enable the operator to readily form the dove-tail keyways or grooves in the surface of the plastic material by the use of a comb therefor.

The above ingredients are properly mixed together with a suitable liquid and formed in slabs in a suitable mold, the composition as thus produced being provided with reinforcing material such as burlap or other fibrous reinforcing materials.

In the drawing a section of a slab has been illustrated and consists of the composition body 5 having a plurality of wavy dove-tail keyways 6 formed in one surface thereof, and embodying in the slab a reinforcing mesh 7 such as burlap as shown in Figures 1 and 2.

While the material or plastic board 5 is in the mold a suitable comb having dove-tail shaped teeth not shown is drawn across the soft surface in a wavy path to form the depressions 6 as described in Figures 1 and 2.

When dry the material is nailed to the building structure with the keyed surface facing outwardly and the plaster interior finish is then applied to the keyed or grooved surface.

In the modified form shown in Figures 3 and 4 the slab 8 consists of the same composition

of plastic material but the reinforcing consists of fibrous materials 9 as indicated in Figures 3 and 4 of the drawing.

The plastic composition enters the wavy dove-tail keyways 6 and is keyed to the slab 5 and held in fixed relation therewith and when the plaster is in a dry state it actually becomes an integral part of the slab or board.

A wall board as thus constructed consists of a unit having considerable tensile or ductile strength and while not pliable in structural formation it will not crumble or crack when nailed in place and will stand considerable pressure per square inch of exposed surface.

The wall board is also very light in weight per unit and is easy to handle and transport from place to place without danger of breakage due to the granulated cork contained therein.

What I claim and desire to secure by Letters Patent of the United States is the following:—

1. In a wall board of the class described, a composition building slab having reinforcing material embedded therein, and a plurality of wavy irregularly shaped key-ways of irregular spacing relative to each other extending throughout the length of the board and providing means for keying interior finishing material thereto, said key-ways being substantially of dove-tail formation in cross section.

2. In a wall board of the class described, a composition slab having a plurality of wavy-like key-ways molded in one face thereof, said key-ways being of irregular spacing relative to each other and being substantially of dove-tail formation in cross section.

JOHN DEAN.