(No Model.)

H. LIEFER.

WALL FOR FRAME BUILDINGS.

No. 389,090. Patented Sept. 4, 1888.

Fig. 1.

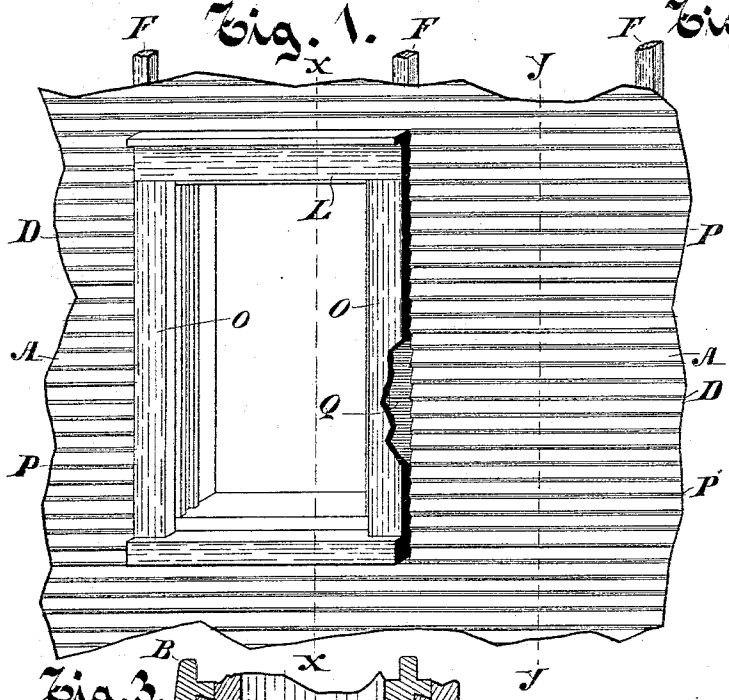


Fig. 2.

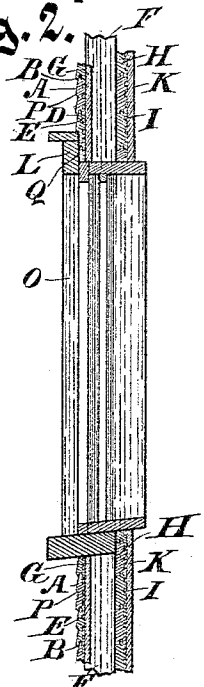


Fig. 3.

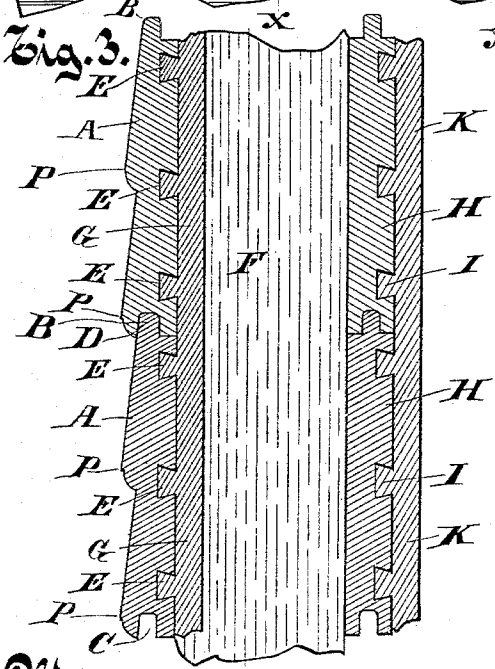
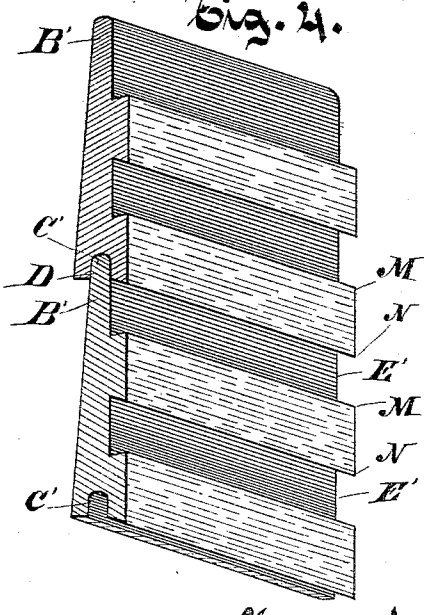


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

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WALL FOR FRAME BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 389,090, dated September 4, 1888.

Application filed December 10, 1887. Serial No. 257,531. (No model.)

To all whom it may concern:

Be it known that I, HENRY LIEFER, of Hinsdale, in the county of Du Page and State of Illinois, have invented new and useful Improvements in Walls for Frame Buildings; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a wall for a frame house in which much less material is used than has heretofore been customary, and by reason of its peculiar form and construction enables me to build a house much less expensively than has heretofore been done, the walls of which are sufficiently strong and may be made more warm and comfortable than those of houses built by the methods heretofore in use.

In the drawings, Figure 1 is a perspective view of a portion of a wall of a frame building, showing the outside of my improved form of wall. Fig. 2 is a vertical cross-section on line X X of Fig. 1. Fig. 3 is also a vertical cross-section of a small portion of the wall shown in Fig. 1, taken on line Y Y. Fig. 4 is a modified form of the siding used in my improved wall.

Like parts are represented by the same reference-letters throughout the several views.

The clapboards or siding A A for the outside of the wall are constructed with a flat inside surface to fit upon and lie against the straight edges of the studding, while the outside surface is inclined laterally to the inside surface, whereby the board is thicker near one edge (intended for the bottom, as secured to the studding) than it is near the other edge, and is provided with a tongue, B, along one edge and a groove, C, in the other edge for constructing a joint, as seen at D. The siding A is also provided on its inner surface with longitudinal grooves E E, which grooves are made wider at the bottom than at the top of the groove at the surface of the board. The siding A is secured to the studs F by nailing them thereto. The grooves E E in the siding A are intended and adapted for receiving and holding the plaster G, which is spread while in plastic condition directly onto the siding on its inner surface, and is retained thereon by the plaster entering the grooves E E and hardening or setting therein, whereby it is permanently held in place. By thus spreading the plaster directly on the siding I do away with the use of lath and obviate the expense of the lath and the nails to attach the lath and the time required for securing the lath to the studding. Also, when laths are used it is common for obtaining sufficient support for the laths to place the studding not more than sixteen inches apart, whereas in my improved form of construction the studding may be placed not less than two feet apart. A house may be constructed which is very warm and comfortable by using only the outside siding, A A, and a coat of plaster thereon, G G; but it is more common to line the wall on the inside of the studding; and for this purpose I use matched boards H H, also provided with grooves I I of the same general character as the grooves E E. These matched boards are secured to the studding on the inside, as shown in Fig. 3, and plaster K is spread thereon and secured thereto in the same general manner as described with reference to the plaster G on the siding A A. In this way a very strong, warm, and inexpensive wall is constructed.

In Fig. 4 is shown an improved form of siding, in which the tongue B′ is made so long as not only to enter and fill the groove C′, but also forms the bottom of a groove, E′, the walls of which grooves E′ are formed by edges or shoulders of the siding M and N of the tongued and grooved edges, respectively. This form of siding, having tongued and grooved edges, respectively, is much more quickly secured to the studding than the ordinary overlapping style of siding, for the reason that when the first piece of siding has once been secured in correct position the siding adjoining it needs only to be placed against the piece already in position and pressed up tightly thereto to put it in proper place, which can be done more quickly than to secure it in its proper overlapping position, when a guide or gage is required to ascertain its proper place.

To insert a window-frame, L, the proper-sized aperture is cut out through the wall, and the overlapping casing O of the frame is made

to fit tightly against the side of the wall by cutting away the projecting parts P P of the siding, whereby the rear side of the casing O is brought tightly and closely against a smooth straight surface on the siding A A, as shown at Q in Fig. 1.

What I claim as new, and desire to secure by Letters Patent, is—

The wall of a frame building, constructed of clapboards or siding A thicker near one edge than near the other edge, and having longitudinal grooves in the inner flat surface for a key for the plaster, which clapboards are secured to studding on the outside thereof, with the inner flat grooved surfaces of such boards toward and against the studding, and plaster spread on such clapboards on the inside and secured thereto by entering said grooves and setting therein, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY LIEFER.

Witnesses:
JOHN PFEIFER,
ERNST BOHLANDER.