

APPLICATION FILED JAN. 6, 1912.

3 SHEETS—SHEET 1.

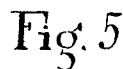
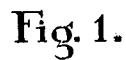


Fig. 2

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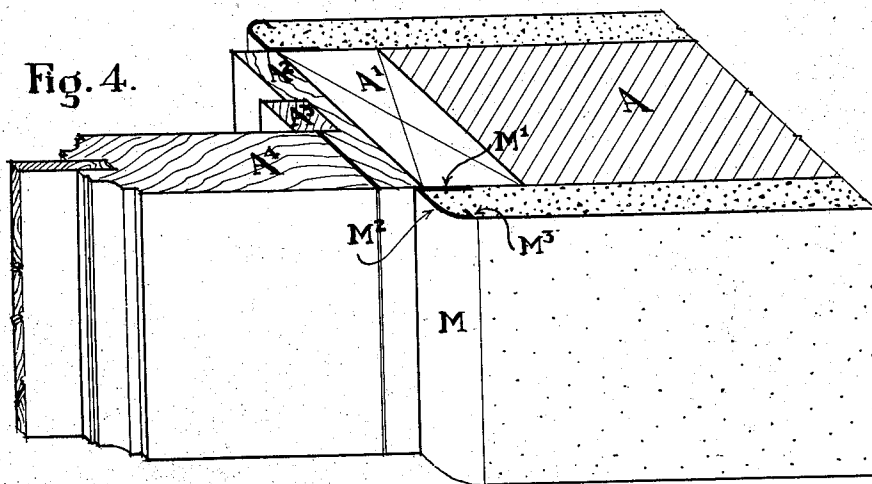
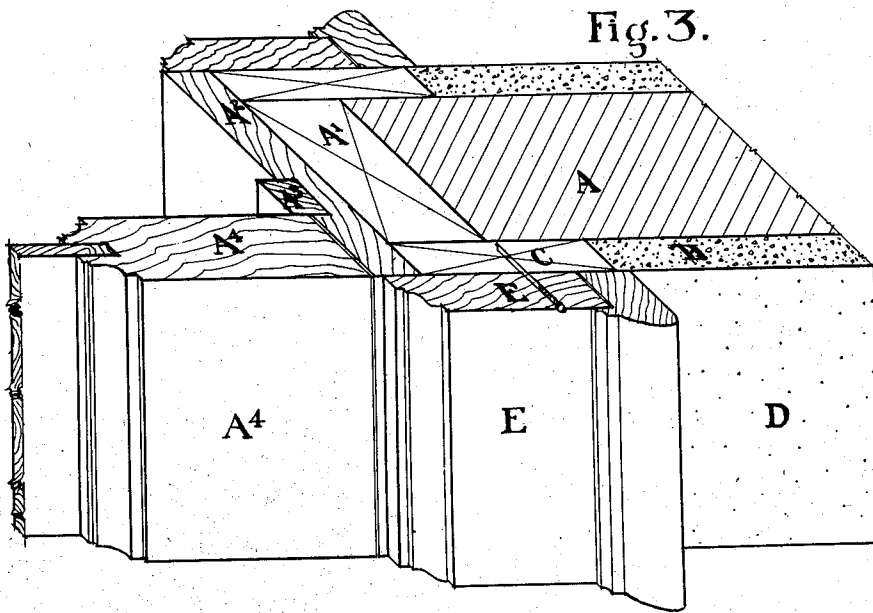
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DOOR AND WINDOW OPENING.
APPLICATION FILED JAN. 6, 1912.

1,027,460.

Patented May 28, 1912.

3 SHEETS—SHEET 2.



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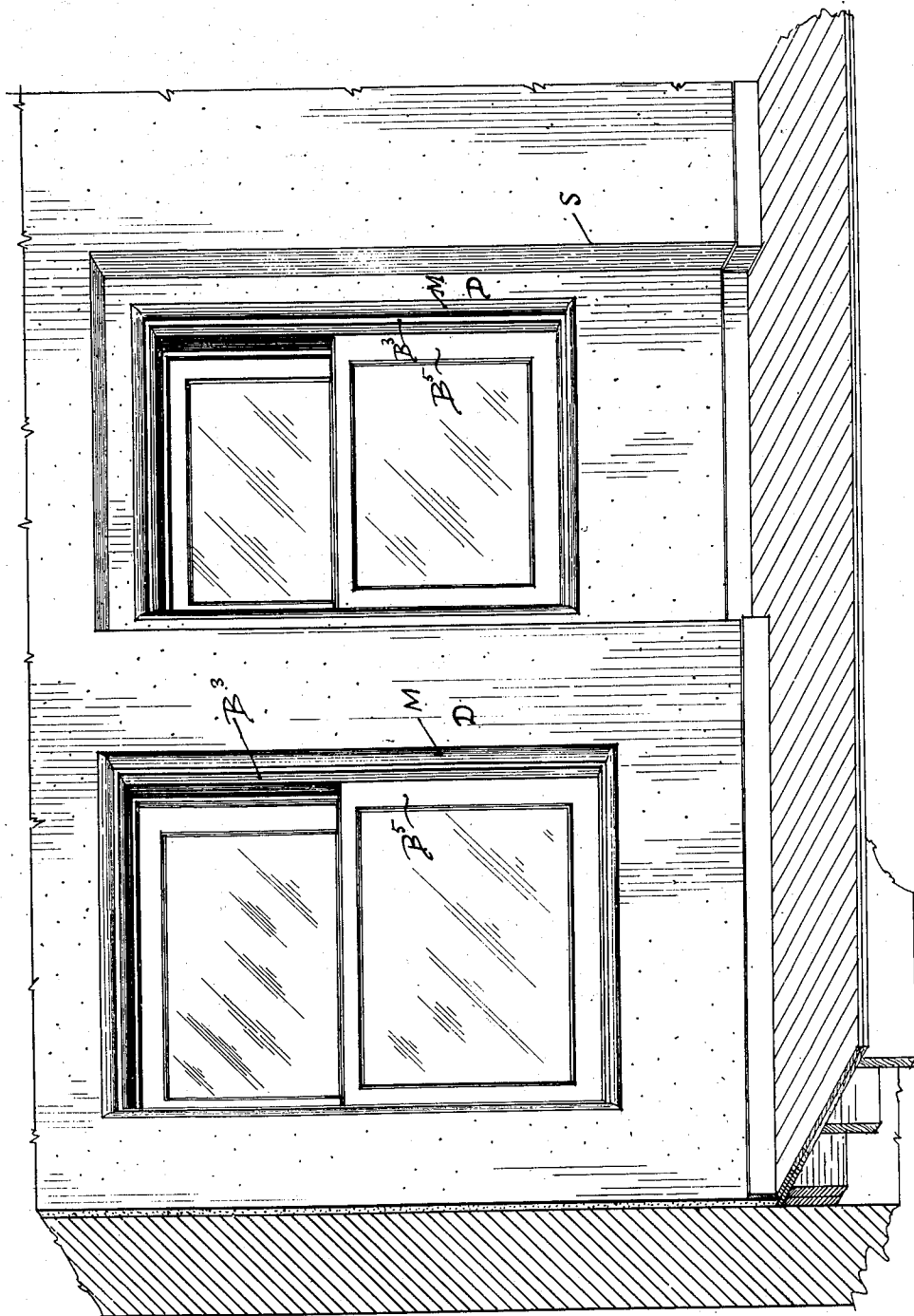


Fig 6

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UNITED STATES PATENT OFFICE.

GEORGE A. BERLINGHOF AND ELLERY L. DAVIS, OF LINCOLN, NEBRASKA.

DOOR AND WINDOW OPENING.

1,027,460.

Specification of Letters Patent.

Patented May 28, 1912.

Application filed January 6, 1912. Serial No. 669,804.

To all whom it may concern:

Be it known that we, GEORGE A. BERLINGHOF and ELLERY L. DAVIS, citizens of the United States, and residents of Lincoln, Nebraska, have invented a new and useful Improvement in Door and Window Openings, of which the following is a specification.

Our invention relates to the building of door and window opening in houses, more especially in schools and hospitals and the like, where neatness and freedom from dust and freedom from corners in which dust may gather are desiderata.

In the method now usually adopted, after the wall is up, a ground of cheap, soft wood is nailed about the edge of the opening left in the wall, the thickness of which is equal to the depth of the plaster which is ultimately to line the wall. In fact one of the two main functions of such a ground is to have its outer edge, away from the opening and away from the wall, to act as a guide for the trowel which slicks or smooths the plaster into place. After the plaster has been applied to the wall flush with the ground, and has dried, the window casing is put into place and nailed down against the ground. This ground thus exercises its second function of acting as a support for the nails which secure the casing to the wall. There are then three sets of steps involved in the process of manufacture, the securing of the ground to the wall, the plastering, and the securing of the casing to the ground. Again the casing projects beyond the plaster, creating a recess or corner therebetween, in which dust may lodge and from which dust may only, with some difficulty, be removed. Then, too, it is quite difficult to make a tight joint between the casing and the plaster so that the air and dust which may have filtered from the outside between the wall and window frame may thence pass between the frame and plaster into the room. In our invention, we substitute a two step process of building for the three step process above described and we produce an opening, such as a door or window, in which the edges are flush with the plaster, in which the objections above stated are overcome and in which the comparatively expensive door or window casing is replaced by a far cheaper length of narrow metal molding.

In the drawings Figure 1 is a sectional perspective of the present form of window structure; Fig. 2 is a similar view of our im-

proved window; Fig. 3 is a sectional perspective of the present style of door; Fig. 4 is a similar view of our improved door; Fig. 5 shows a modification; Fig. 6 is a perspective view of a wall having two windows each embodying our invention.

The wall A in the old style window, as shown in Fig. 1, has secured thereto a weight box B having an outside stop B¹, a staff bead B², an inside stop B³, and a parting stop B⁴ between which two stops slides the window B⁵. To the weight box B is secured the guiding and nailing ground C. The plaster D, being applied and troweled flush with the outer edge of the ground, is allowed to dry whereupon the casing E is nailed to the ground C and the window is finished. But, as we see, there is formed a troublesome corner F in which dirt may lie and from which it can only be removed with some difficulty. Besides the air which filters around between the wall and the parts attached thereto can gain ready entrance into the room through the joint formed by the casing E and the plaster in the corner F. This makes such structures unsuitable for hospitals and schoolhouses and undesirable for dwellings.

In our invention, as shown in Fig. 2, the window box and its several stops remain the same; but the ground C and casing E are dispensed with. Instead we secure to a convenient portion of the wall adjacent to the opening, in this case to the side of the weight box, a metal molding M constituted of a base flange M¹ for nailing to the wall, a projecting and preferably curved flange M² sometimes making an angle therewith and, also preferably, a reëntrant flange M³ for locking the plaster. The molding having been secured in place, it merely remains to apply the plaster flush with the outer edge M⁴ of the molding and to let it dry and the job is finished. It is thus seen that our molding acts as a guiding ground for applying the plaster, but that the feature of having it act as a ground to which something is nailed is dispensed with. We note also that our plaster wall is smooth and unbroken by projecting casings right up to the window opening so that there is presented a smaller number of corners in which dust may lodge. That the plaster and metal surface D, M, of Fig. 2 will stay cleaner than the corresponding plaster and wood or metal surface D, E, of Fig. 1; and that it may be more readily cleaned when

dirty, is obvious. We thus gain greater efficiency at less expense, for the molding M is not only cheaper to manufacture than the corresponding casing E of Fig. 1, but it is applied with one step less in the process of building, thus saving labor cost of installation. If the plaster wall D is painted then the paint is run to the angle between the parts M¹ and M². If the plaster wall is papered, then the paper is run to a corresponding point. The projecting flange M² of the molding M is, in fact, a flush continuation of the plaster wall surface around the window corner.

In Fig. 3 we have shown an old style door opening in which the wall A has secured thereto a rough door frame A¹ to which is nailed the finished door frame A² which carries the door stop A³ and the door A⁴. We again have a plaster guiding ground C, C, to which the door casing E is subsequently nailed. In our invention, however, as shown in Fig. 4, the wall A carries the rough door frame A¹, the finished door frame A², the door stop A³ and the door A⁴. But the nailing ground C and casing E are dispensed with. Instead we use the same metal molding M, as before, having a base flange M¹ secured to the wall, a projecting and curved flange M² which acts as a guide for plastering, against which the plaster abuts and with which it is flush, and the reentrant flange M³ for locking the plaster. The advantages of the neat, unbroken, flush and dust-catching-corner free boundary wall of the door opening in Fig. 4 are about the same as those above specified in the corresponding case of the window.

In the modification shown in Fig. 5, the base flange M¹ and the projecting flange M² are in line and not at an angle. This permits us to vary the thickness of the plaster coating.

It will thus be seen that we take a door or window opening which is supplied with the usual frame set within the opening and that we place, in juxtaposition to the frame, the base flange of our molding, the project-

ing flange of which defines the thickness of the plaster coat. In this way we dispense with nailing grounds, we have the molding act as a guide for the trowel in plastering, we do away with objectionable corners in which dirt may lodge and we substitute for an expensive door or window casing a far cheaper piece of narrow metal molding. When our invention is used on inset windows, as shown to the right of Fig. 6, we may employ on the salient angle S, thus formed, any common form of corner bead which, however, constitutes no part of our invention.

We claim:

1. A wall having an opening; a frame in the opening; a molding having a base flange in juxtaposition to the frame and a projecting flange; and a plaster coat on the wall abutting against the molding, flush with its outer edge, which thus acts as a substitute for the casing, substantially as described.

2. A wall having an opening; a frame in the opening; a molding having a base flange in juxtaposition to the frame and a curved projecting flange; and a plaster coat on the wall abutting against the molding, flush with its outer edge, which thus acts as a substitute for the casing, substantially as described.

3. A wall having an opening; a frame in the opening; a molding having a base flange in juxtaposition to the frame, a projecting flange defining the thickness of the plaster and a reentrant flange for locking the plaster; and a plaster coat on the wall abutting against the molding, flush with its outer edge, which thus acts as a substitute for the casing, substantially as described.

In testimony whereof, we have signed our names to this specification, in the presence of two subscribing witnesses.

GEORGE A. BERLINGHOF.
ELLERY L. DAVIS.

Witnesses:

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SAM'L. J. TUTTLE.