(No Model.) 3 Sheets—Sheet 1.

C. T. RICHARDS.

BUILDING FRONT.

No. 480,909. Patented Aug. 16, 1892.

Fig. 1.

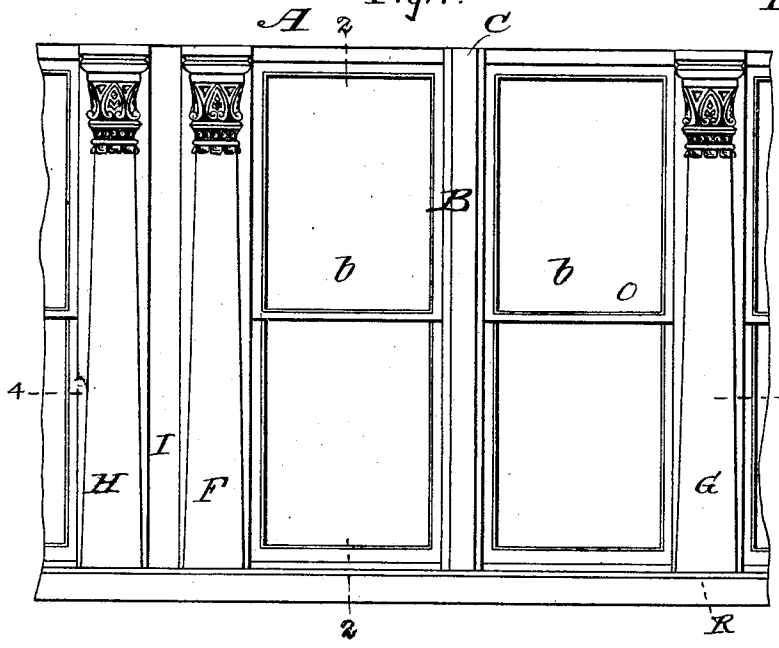


Fig. 2. Fig. 3.

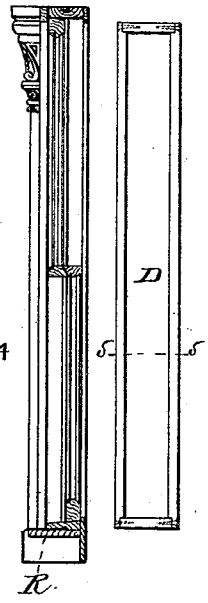


Fig. 4.

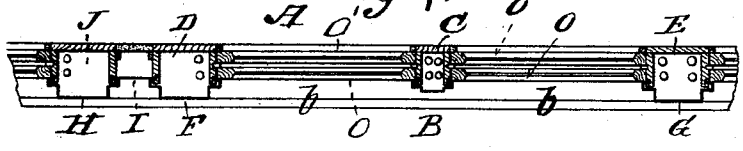
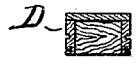


Fig. 5.



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ATTORNEY.

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(No Model.) 3 Sheets—Sheet 2.

C. T. RICHARDS.

BUILDING FRONT.

No. 480,909. Patented Aug. 16, 1892.

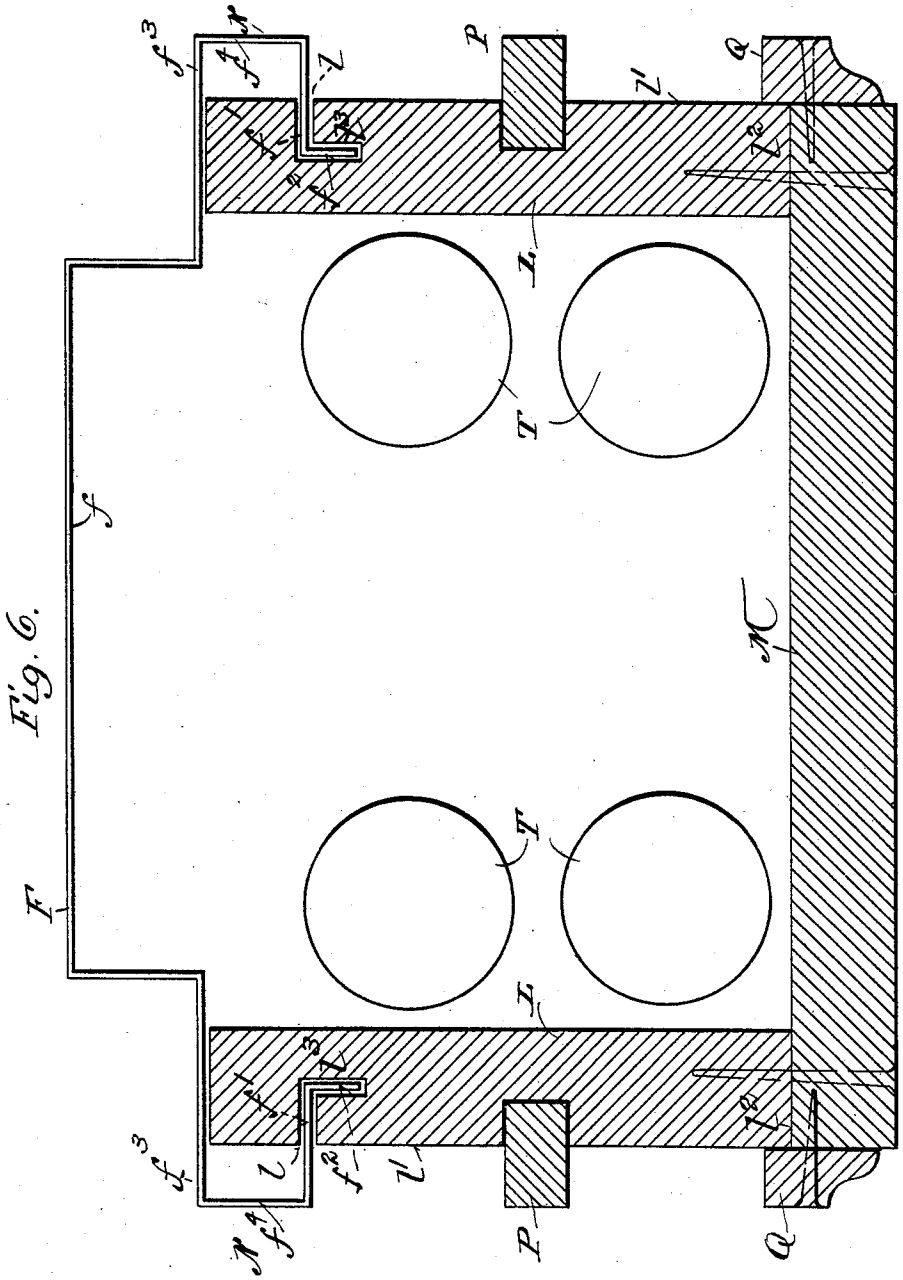

Fig. 6.

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(No Model.) 3 Sheets—Sheet 3.

C. T. RICHARDS.

BUILDING FRONT.

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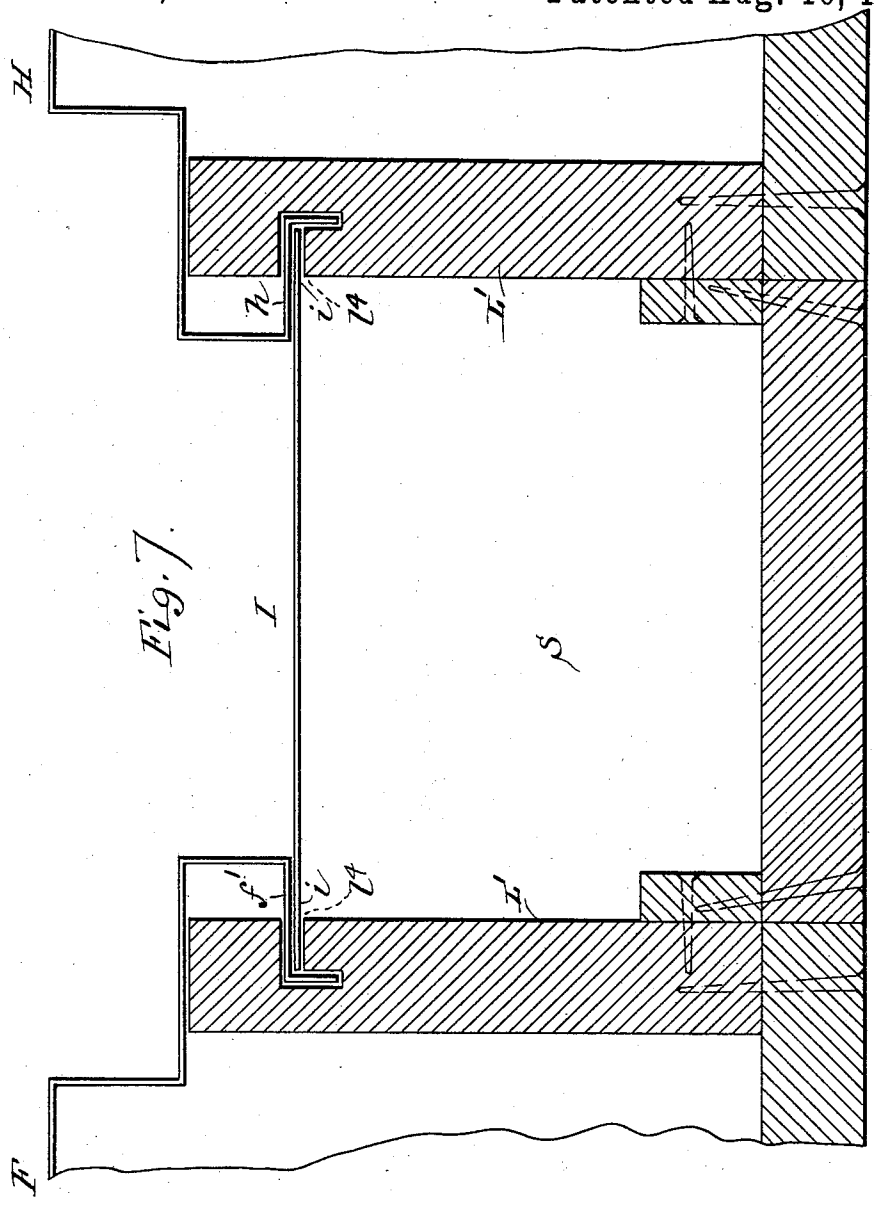

Fig. 7.

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UNITED STATES PATENT OFFICE.

CHARLES T. RICHARDS, OF ST. LOUIS, MISSOURI, ASSIGNOR TO MESKER & BRO., OF SAME PLACE.

BUILDING-FRONT.

SPECIFICATION forming part of Letters Patent No. 480,909, dated August 16, 1892.

Application filed July 2, 1891. Serial No. 398,296. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. RICHARDS, of St. Louis, Missouri, have made a new and useful Improvement in Building-Fronts, of which the following is a full, clear, and exact description.

The improvement relates more especially to that class of building-fronts in which sheet metal is employed; and it consists in the mode of constructing and combining a metal facing with the inner woodwork of the building-front, substantially as is hereinafter described and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is a front elevation of that portion of the building-front with which the improvement is more directly connected; Fig. 2, a vertical section on the line 2 2 of Fig. 1; Fig. 3, a front elevation of one of the box-frames of the front, the metal facing being removed; Fig. 4, a horizontal section on the line 4 4 of Fig. 1; Fig. 5, a horizontal section on the line 5 5 of Fig. 3; Fig. 6, a horizontal section of one of the box-frames, including the metal facing; and Fig. 7, a horizontal section of that part of the front which is included between adjoining box-frames. The last two named views are upon an enlarged scale.

The same letters of reference denote the same parts.

Certain features, more or less in combination, characterize the present improved construction. A sheet-metal facing, which in itself may take the form of a column, pilaster, finish-piece, or what is termed a "sub-column," is used in conjunction with the wooden pulley stiles or boxing of an otherwise ordinary box window-frame or other wooden framework used in a building-front, said facing being connected with said stiles or other part of the building-front by slipping it endwise thereonto and interlocking it therewith, to which end the parts of the metal facing and their respective supports are suitably relatively constructed. The interlocking is of such a nature as to obviate the need of nails, bolts, or other fastenings for uniting the metal facing rigidly to the woodwork, thereby not only cheapening the construction, but also making ample provision for the facing to expand and contract without straining its connection with its support, and in turn enabling the boxing under the influence of the weather to swell and contract without affecting the facing. The facing may be wider than the inner part of the front, to which it is immediately attached, to enable it to form the outside stop for the sash used in the window-frame to which the facing is applied. Another advantage derived is that the work can be shipped in a knockdown form, and the facing can be attached in the manner described to its support after the parts of the front have reached their destination. A further benefit is derived in this respect. Whenever greater widths are required than are provided for in the stock window-sash and columns, they can be obtained by the use of intermediate sheets of the metal facing, which by means of the present improvement can be quite readily embodied in the front, and that, too, in a manner which enables the metal to expand and contract freely without buckling or straining the parts.

A, Fig. 1, represents a building-front of the class under consideration.

B represents a double window therein, whose parts *b b* are separated by the mullion C, and D represents the box-frame at one side of said window, and E represents the box-frame at the opposite side of said window. The first-named box-frame is finished in front with a metal facing in the form of a column F, and the last-named box-frame has a similar facing in the form of a column G. Another column is shown at H, and I represents a sub-column between the columns F and H.

The various box-frames D E J are of the usual form, substantially—that is, having the stiles L L or equivalent parts and the inside finish board M, which are suitably united, substantially as shown. The metal facing F, so far as its central portion *f* is concerned, may be variously shaped to produce any desirable architectural effect, and in the present instance said central portion projects outward, substantially as shown; but at its side edges the facing or column is adapted to be slipped longitudinally onto the stiles of the

box-frame and to become interlocked therewith, so as to be held in place against either an inward or outward strain and also against a lateral strain either from the right-hand or from the left-hand direction. This is accomplished by relatively shaping the facing and the stiles at their point of connection, so that whether the facing is pushed inward or pulled outward or pushed to the right or to the left some shoulder or shoulders upon it shall encounter some part or parts of one or the other or of both of the stiles, and the facing in consequence held from moving out of place. What I consider the most desirable, but not the only form, to this end is shown in Fig. 6 more distinctly. A slot l extends from the outer side l' of each stile inward into the stile, substantially as shown, and then toward the inner edge l^2 of the stile, substantially as shown at l^3. The facing F is correspondingly shaped, having a flange f', which engages in the stile-slot l, and an additional flange f^2, which engages in the stile-slot l^3. By this means if the facing is pressed inward its described flanged edge encounters that portion of the stile which is at the inner side thereof, and if the facing is drawn outward its flanged side edge encounters that portion of the stile which is at the outer side thereof, and whichever way the facing is strained laterally its flange f^2 encounters a portion of the stile, and thus the facing is retained in position. At the same time the facing can be readily secured upon the stiles, as shown, by simply slipping it longitudinally thereonto after the stiles are formed into the described box-frame.

To carry out another feature of the improvement the facing F at each side thereof is extended to a greater width than that of the box-frame to form a suitable sash-stop N, substantially as shown—that is, the facing, instead of being turned in directly against the outer face l' of the stile, is extended past said outer face, substantially as shown at f^3, and is then turned inward, substantially as shown at f^4, and is finally shaped to form the flanges f' f^2, substantially as shown.

The outer sash O works between the stop N and the parting-strip P, and the inner sash O′ between the parting-strip and the inner stop Q, in the ordinary manner.

In practice the frames D, &c., and the facings F are shipped separately, and after reaching their destination the facings are applied to the frames in the manner described, and after the frames and their respective facings are in position the facings are held in place vertically upon the frames by reason of the customary sill R beneath and the customary lintel (not shown) above the frames and facings. The parts—namely, the stiles and the inside finish-board of the box-frame—are of wood, and the stiles in consequence are sufficiently stiff for the purposes for which they are intended, and making the facing of sheet metal the combined column and box-frame is a comparatively light as well as strong structure.

An additional feature of the improved construction is the sub-column I, held in the stiles by inserting its edges i i in the slots l^4 in the wooden parts L′ L′, which are analogous to the stiles L L, but which are modified in form, in view of the fact that the space S, inclosed by the sub-column, is not intended for sash-weights T T, nor the parts L′ L′ for sashes. Said slots l^4 are wide enough to admit the flanges f' of the columns F H, respectively, as well as the edges i i—that is, said columns F H and said columns I are applied to their respective supports in the same manner as that in which the facing F is applied to its support—namely, by slipping them longitudinally upon their respective supports.

I desire, as stated, not to be restricted to any special mode of relatively shaping the sheet-metal facing and its support at their contacts, so long as provision is made for holding the facing as described. Therefore I do not wish to be limited to any particular shape, place, direction, or angle in forming the facing-support slot or slots and the coacting facing flanges or projections. Such slot or slots may enter said stiles or support variously, and said flanges or projections be correspondingly extended. Accordingly, for instance, the flange f^2 of the facing and the stile-slots l^3 in the particular construction illustrated are not absolutely necessary, as the flanges f' f' in themselves suffice to hold the facing in place, and said flanges f' f' need not necessarily enter the stiles at the particular angle shown.

I claim—

1. A building-front comprising a metal facing, in combination with the stiles, said metal facing having its inner side edges slipped upon and interlocking with right-angled slots in the stiles, substantially as set forth.

2. A building-front having a metal facing, in combination with the stiles, said facing being extended laterally to form the sash-stops and having its inner side edges slipped upon and interlocking with right-angled slots in the stiles, substantially as specified.

3. A building-front having a metal facing, in combination with the wooden box-frames, said metal facing forming columns and sub-columns and interlocked with right-angled slots in the stiles formed by the sides of said frames, substantially as specified.

4. A building-front having a metal facing, in combination with the stiles having right-angled slots in their sides, said facing having its inner side edges provided with right-angled flanges to engage and interlock with said slots as said facing is slipped vertically upon said stiles, substantially as set forth.

Witness my hand this 8th day of June, 1891.

CHARLES T. RICHARDS.

Witnesses:
PAUL BOILEAU,
FRANCIS VALLÉ.