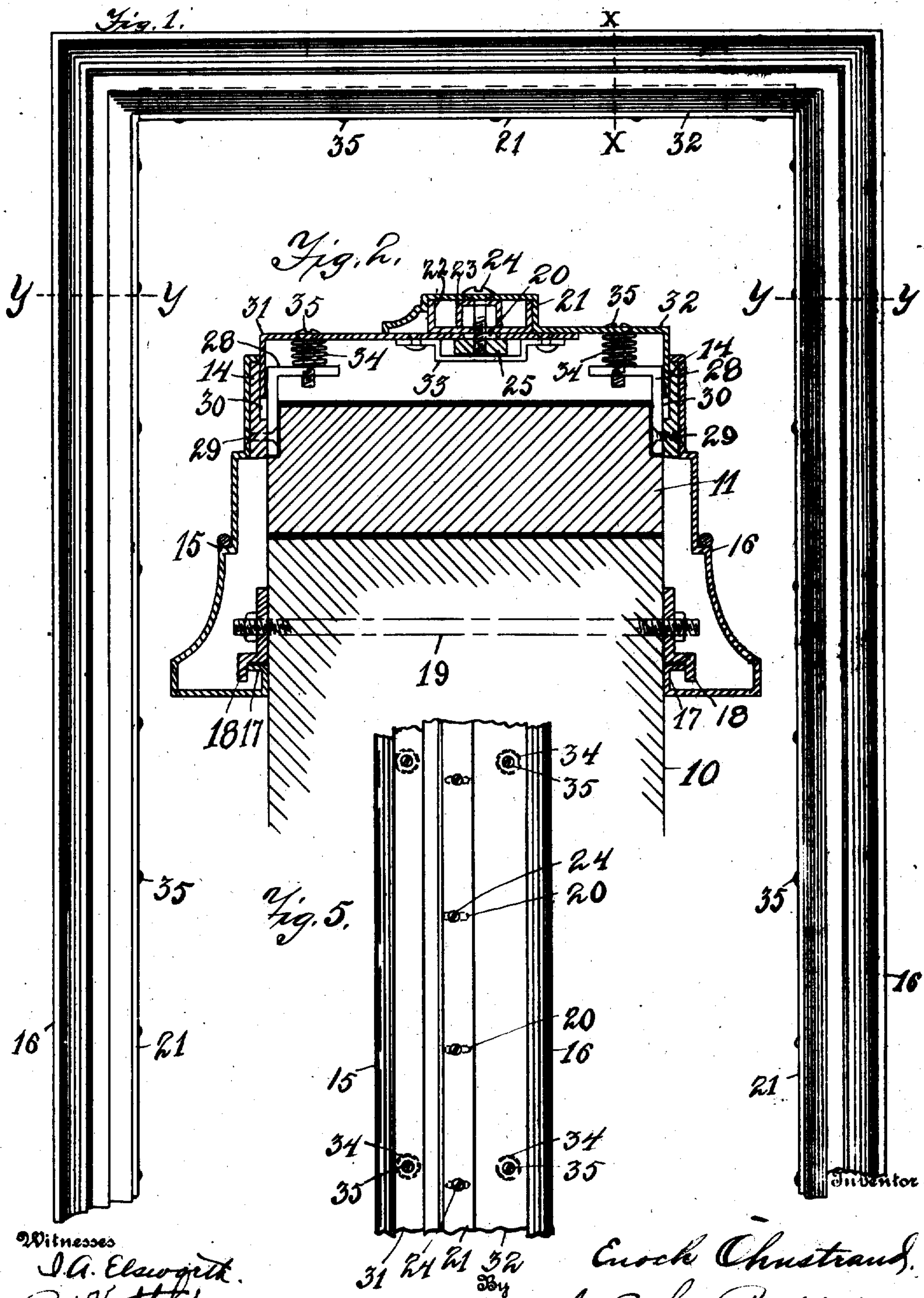


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SHEET METAL FRAME CONSTRUCTION.  
APPLICATION FILED JAN. 26, 1907.

899,259.

Patented Sept. 22, 1908.

2 SHEETS—SHEET 1.



Witnesses  
J. A. Elsworth.  
Arthur

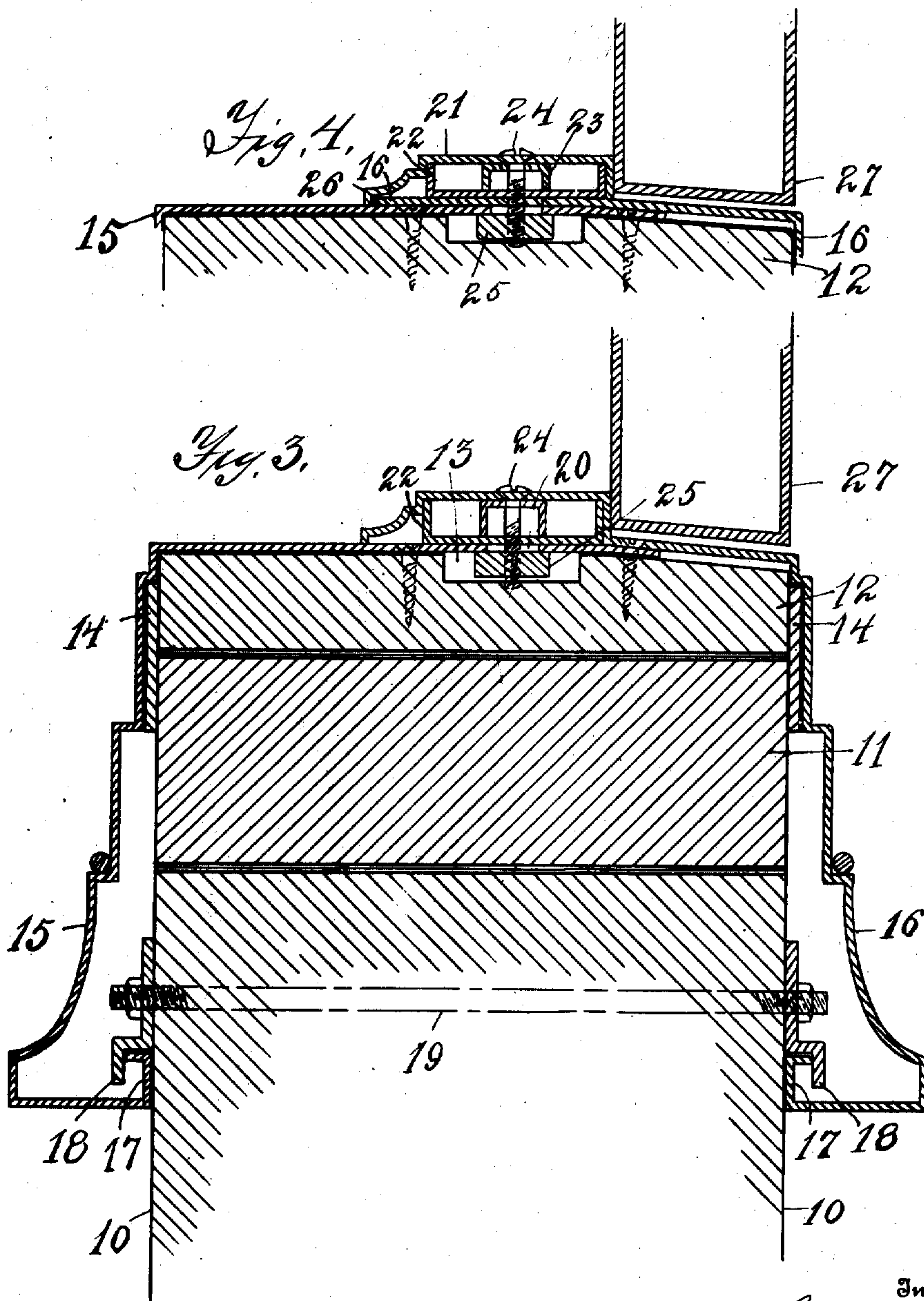
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Witnesses  
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Attorney



# UNITED STATES PATENT OFFICE

ENOCH OHNSTRAND, OF JAMESTOWN, NEW YORK, ASSIGNOR TO OHNSTRAND METAL FURNITURE COMPANY, OF JAMESTOWN, NEW YORK.

## SHEET-METAL-FRAME CONSTRUCTION.

No. 899,259.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed January 25, 1907. Serial No. 353,968.

*To all whom it may concern:*

Be it known that I, ENOCH OHNSTRAND, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Sheet-Metal-Frame Construction, of which the following, taken in connection with the accompanying drawing, is a full, clear, and exact description.

The invention relates to frame construction in sheet metal; and the object of the improvement is to provide a sheet metal frame construction which may be quickly and easily adapted to any variations in the walls at the top and sides of the opening.

Figure 1 is an elevation of the upper portion of a frame. Fig. 2 is a sectional view of the lintel at line X X in Fig. 1. Fig. 3 is a sectional view of either side at line Y Y. Fig. 4 is a slight modification of the construction shown in Fig. 3. Fig. 5 is a plan view of the under side of the lintel.

Similar numerals refer to corresponding parts in the several views.

The numeral 10 indicates the brick, stone, or cement wall of which fire-proof buildings are usually constructed and upon which sheet metal frames are used. The jambs at each side of the opening to be framed are preferably first fitted with strips 11, and an inner strip 12 having the central lengthwise groove 13. Two side strips 14 are provided to fit the molding of the sheet metal facing and hold it stiff.

The sheet metal sides consist of the moldings 15 and 16 for the jamb and facings of the wall. A flange 17 is turned inwardly on the outer edges of the moldings 15 and 16. Cleats 18 are attached to the wall 10 on each side by bolts 19, as shown, and flanges 17 are held firmly in place under cleats 18, as shown. Molding 15 is first put in place and secured by suitable screws on the jambs. Slotted openings 20 are provided in molding 15 over groove 13.

Molding 16 has the stop 21 for the door or window formed on its inner edge, a channel piece 22 is provided to hold stop 21 firmly in place on the jamb and a second channel piece 23 is provided for the screw bolts 24 so that they cannot compress the molded stop 21 out of line. A strip or bar 25 is provided in groove 13 for bolts 24 to screw into. Bolts 24 pass through suitable holes in stop 21, and

channel pieces 22 and 23, and through slotted opening 20 in piece 15. It is apparent that any inaccuracies of the thickness in the wall 10 are easily adjusted by a slot 20 for each bolt 24 down the face of the interlap.

A slight modification in the construction of the sheet metal molding 16 is shown in Fig. 4, in which the sheet metal stop 21 is made in a separate piece from the remainder of the molding; the inner edge of the molding 16 extends through underneath channel piece 22, and is held firmly in place by screw bolt 24, the edge 26 of the molded stop 21 covering the inner edge of the molding 16. The form shown in Fig. 3 is preferred on account of its greater strength in holding the door or window 27.

In the metal sheathing of the lintel of the door frame it is necessary to provide for the settling together of the building, and to so provide that such unavoidable change may be easily adjusted so that the frame will not bind the door or window within it. The moldings 15 and 16 are attached at their outer edges by flanges 17 and cleats 18. Each of the moldings, instead of extending across the under face of the lintel stop just outside of the same. Angle pieces 28 are provided at each side, being secured by suitable screw bolts 29 through strips 14, and extending within the opening beneath strip 11. A slotted opening 30 is provided between angle pieces 28 and strips 14 and moldings 15 and 16 to receive the inner edges of the pieces 31 and 32 which continue the form of the door frame with slot 20 in piece 31 to receive bolt 24 and stop 21 with the channel pieces 22 and 23 within the same. A strap 33 is provided on the inner side of piece 31 to hold bar 25 in place. Coiled springs 34 and screw bolts 35 are provided at each side between angle pieces 28 and pieces 31 and 32.

It is now apparent that the pieces 31 and 32 may be quickly adjusted by screw bolts 35 and thus accommodate the frame to the settling of the building without buckling or bending the sheet metal casing thereby spoiling its contour as well as its metal finish.

It is apparent that the form of casing shown in Fig. 3 might be continued across the lintel in the place of the form shown in Fig. 2 and serve a good purpose, but it would not accommodate the settling of the building, and accordingly the form shown in Fig. 2 is preferred. The construction shown in Fig. 2



forms a spring or resilient lintel which may be easily adjusted to the natural changes in the building and which may be used with any good form of sheet metal casing and not depart from this invention.

I claim as new:—

1. In sheet metal frame construction, a casing composed of two lengthwise interlapping parts, said parts slotted at the interlap, a suitable tie piece within said lap, and screw bolts in said parts and tie piece to adjustably hold the same.

2. In sheet metal frame construction, a casing composed of two parts interlapping on their inner edges along the jambs and lintel, intumed flanges on the outer edges of said parts, cleats on the wall to hold said intumed flanges, one of said interlapping edges having crosswise slots, a suitable tie strip within said lap, and bolts in said slotted interlapping parts to adjustably hold the same.

3. In sheet metal frame construction, a casing composed of two parts interlapping on their inner edges, the outer interlapping edge formed in a door or window stop, an inner channel piece to hold said stop, the inner of said lapping parts slotted crosswise at the lap, and screw bolts to adjustably hold said parts.

4. In sheet metal frame construction, a suitable casing for the jambs, a lintel casing consisting of side facings for the wall, an adjustable inner facing dependingly supported below said side facings, and springs within said inner facing to adjust the same to a door or window.

5. In a sheet metal frame construction, a lintel casing composed of two outer parts and means for attaching them to the wall, angle irons attached to said outer parts having a space between said angle irons and facings, a lintel under facing having flanges to enter said space between said angle irons and outer parts, screw bolts attaching said lintel under facing to said angle irons, and coil springs around said screw bolts.

6. In a sheet metal frame construction, a

lintel composed of two outer parts and means for attaching them to the wall, angle irons attached to said outer parts with a space between the angle irons and outer parts, a lintel under facing having flanges to enter said space between said angle irons and outer parts, screw bolts and coil springs to attach said lintel under facing to said angle irons, said lintel under facing formed in two interlapping parts, the inner interlapping part slotted, the outer interlapping part having a door or window stop formed therein, channel irons within said stops to hold the same, and screw bolts to adjustably hold said interlapping inner facings.

7. In sheet metal frame construction, a lintel composed of the two outer facings 15 and 16, cleats 18 on the wall, flanges 17 to engage said cleats and hold said facings, angle irons 28 attached within said facings having a slot 30 between said angle irons and said facings, the lintel under face composed of parts 31 and 32 having flanges thereon to enter slots 30, part 31 having slots 20, part 32 having stop 21, said parts attached to angle irons 28 by coil springs 34 and screw bolts 35.

8. Sheet metal frame construction consisting of facings 15 and 16 for the jambs and lintel, cleats 18 on the wall and flanges 17 on said facings engaging said cleats, said facings having interlapping inner edges, the under interlapping edge having crosswise slots 30, the outer interlapping edge formed in a stop 21, screw bolts 24 to hold said parts together, the lintel under face formed in a separate part 31 32 having upwardly projecting flanges, angle irons 28 on the inner sides of facings 15 and 16, and coil springs 34 and screws 35 to adjust said lintel under face.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ENOCH OHNSTRAND.

Witnesses:

A. W. KETTLE,  
I. A. ELSWORTH.