

No. 738,939.

PATENTED SEPT. 15, 1903.

J. W. RAPP.
FIREPROOF WINDOW SASH.
APPLICATION FILED FEB. 26, 1902.

NO MODEL.

Fig. 1

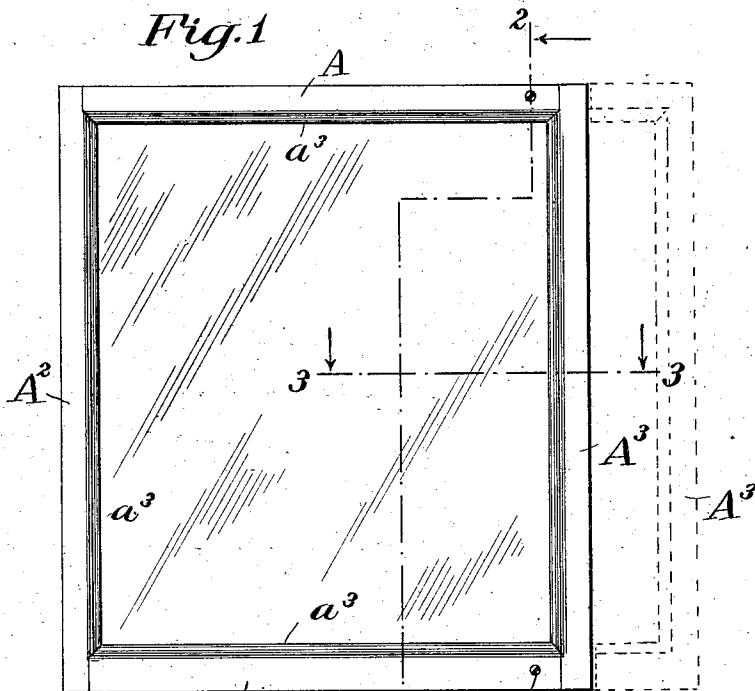


Fig. 2,

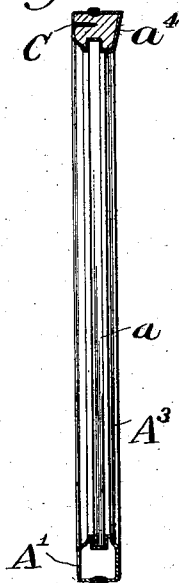


Fig. 3,

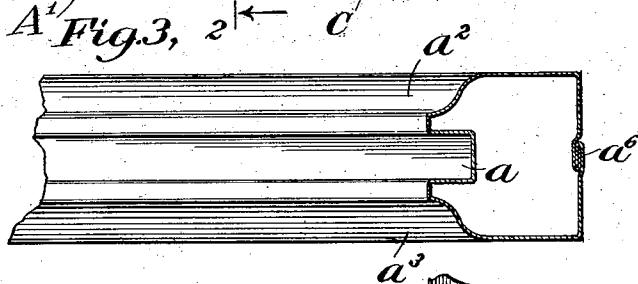
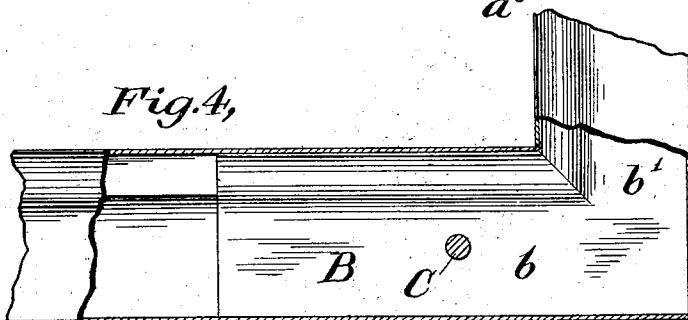


Fig. 4,



WITNESSES:

Harry Cross
W. E. Cross

INVENTOR

John W. Rapp

BY

Dickerson, Brown & Magner

HIS ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN W. RAPP, OF NEW YORK, N. Y.

FIREPROOF WINDOW-SASH.

SPECIFICATION forming part of Letters Patent No. 738,939, dated September 15, 1903.

Application filed February 26, 1902. Serial No. 95,667. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. RAPP, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Fireproof Window-Sashes, of which the following is a specification.

My invention relates to fireproof window-sashes.

I will describe a fireproof window-sash embodying my invention and then point out the novel features thereof in a claim.

In the accompanying drawings, Figure 1 is a view in elevation of a fireproof window-sash embodying my invention. Fig. 2 is a vertical sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a detail horizontal sectional view, on an enlarged scale, taken on the line 3 3 of Fig. 1. Fig. 4 is a detail view, partly broken away, of a corner of the fireproof window-sash shown in Fig. 1.

Similar letters of reference designate corresponding parts in all of the figures.

A A' designate the top and bottom rails of the fireproof window-sash, and A² A³ the vertical side rails thereof. Each of these rails is of metal. As here shown, each rail is hollow and consists of an angular body portion *a*, three sides of which are plain, while the fourth side is formed with a groove or channel *a'*, extending longitudinally of the rail, which is adapted to receive an edge of a glass pane. On each side of the groove or channel *a'* the metal may be bent to simulate molding, (designated by *a² a³*.) One surface *a⁴* of the top rail is inclined, as shown. This surface is adapted to coact with the inclined surface of the adjacent rail on a second sash, which is usual in window-frames.

B designates an elbow, which is preferably of wood. Four such elbows are employed in forming a rectangular window-sash. One member, *b*, of each elbow is introduced in an end of a rail, while the other member, *b'*, of each elbow is introduced into the adjacent rail. Screws or other devices C may be employed to hold the rails on the members of the elbows.

In forming the window-sash three of the four rails are permanently fastened together on two of the elbows B, while the fourth rail,

carrying the other two elbows, is capable of being detached from the other three rails. The sashes are manufactured in this manner in order that the glass pane may be easily placed in the sash. When the glass is to be placed in the sash, the fourth rail (which is here shown as being one of side rails A³) is detached from the other three rails (see dotted lines in Fig. 1) and the glass inserted in the grooves or channels *a'* of the other rails from that side of the sash. The rail A³ is then permanently connected with the other three. This is done, it will be understood, by introducing the projecting members of the elbows carried by fourth rail into the top and bottom rails and then passing screws or other fastening devices C through the rails into the members of the elbows.

While I have shown and described a fireproof window-sash comprising four rails, it is obvious that three rails may be used or more than four rails, according to the shape of sash desired. In some instances it may be necessary to have more than one rail detachable in order to introduce the glass pane. The members of the elbows will also diverge at different angles, according to the shape of the sash. The cross-sectional contour of the members of the elbows will preferably be the same as the cross-sectional contour of the rails.

I have described and shown the rails as being hollow. It is obvious that a core may be employed in the rails of such length as to leave sufficient space in the rail at the ends of the core to receive the members of the elbows.

The rails may be formed in any desired way. Sheet metal in strips is preferably employed. The sheets are preferably first stamped or bent in any desired manner and the edge surfaces brought into such position as to form a lock or other joint *a⁵*. The sheet in its stamped form may then be drawn through a die to finish it.

Having thus described my invention, what I claim as new is—

1. A fireproof window-sash comprising a plurality of rails, each made from a single piece of sheet metal formed into a tubular body having a glass-receiving groove upon its inner side, moldings extending therefrom, and wooden corner-pieces adapted to be in-

serted within adjoining rails to support and secure them together.

2. A fireproof window-sash comprising a plurality of rails, each made from a single
5 piece of sheet metal formed into a tubular body and having a glass-receiving groove upon its inner side, moldings extending therefrom, a seam upon its outer wall, and wooden corner-pieces adapted to be inserted within
10 adjoining rails to support and secure them together.

3. A fireproof window-sash comprising a plurality of rails, each made from a single piece of sheet metal formed into a tubular
15 body and having a glass-receiving groove

upon its inner side, moldings extending therefrom, and a seam upon its outer wall, wooden corner-pieces adapted to be inserted within adjoining rails to support and secure them together, and wooden cores within the tubular
20 bodies intermediate the ends of the corner-pieces.

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

JOHN W. RAPP.

Witnesses:

GEO. E. CRUSE,
CHAS. H. SHAW.