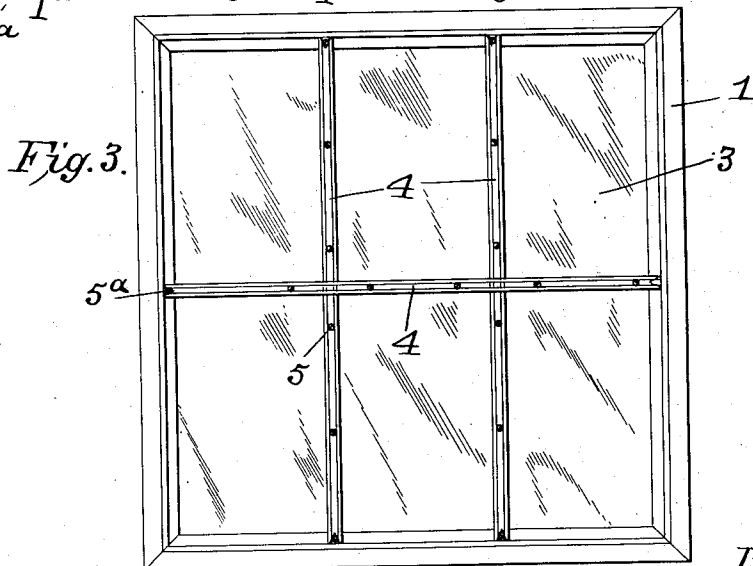
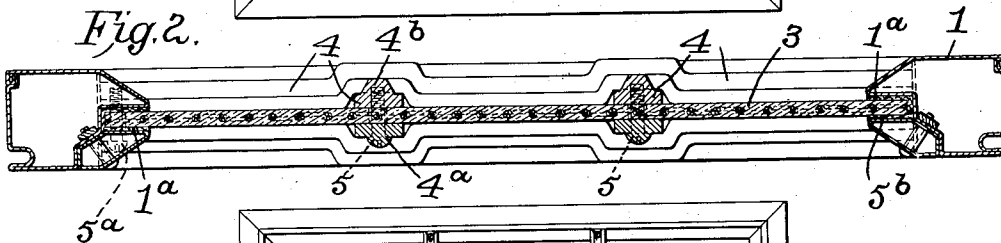
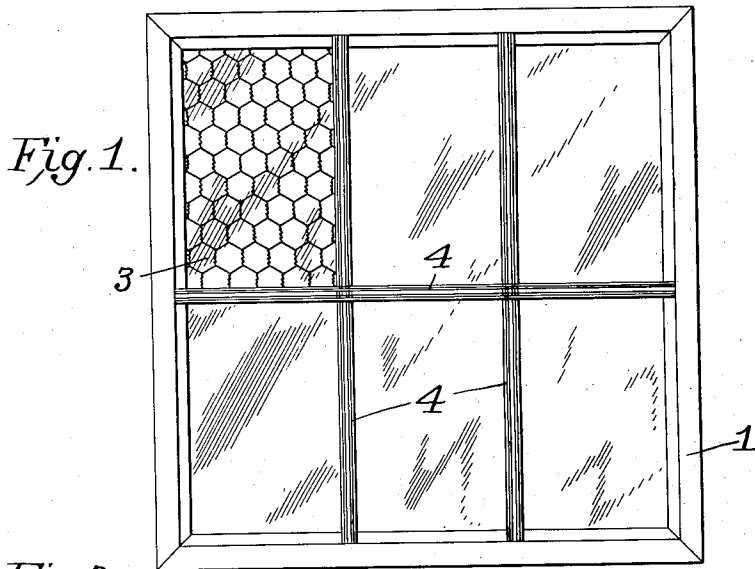


G. H. RIDDELL & W. J. ROWE.
METALLIC WINDOW SASH CONSTRUCTION.
APPLICATION FILED MAR. 6, 1911.

1,012,015.

Patented Dec. 19, 1911.



Attest:

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UNITED STATES PATENT OFFICE.

GEORGE H. RIDDELL AND WILLIAM J. ROWE, OF CHICAGO, ILLINOIS, ASSIGNORS TO
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METALLIC-WINDOW-SASH CONSTRUCTION.

1,012,015.

Specification of Letters Patent.

Patented Dec. 19, 1911.

Application filed March 6, 1911. Serial No. 612,702.

To all whom it may concern:

Be it known that we, GEORGE H. RIDDELL and WILLIAM J. ROWE, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Metallic-Window-Sash Construction, of which the following is a specification.

Our invention relates to improvements in metallic window sash, and more especially to the construction and arrangement of the muntins thereof. Under the rules of the National Board of Fire Underwriters muntins for use in connection with wired glass must be made from one and three-fourths to two and one-eighth inches wide, which makes a sash which is not only unsightly but also shuts off considerable light.

The object of the present invention therefore is to provide a wired glass sash having narrow muntins and which will yet stand the test and meet the approval of the fire underwriters.

The invention includes the novel features of construction and arrangement of parts hereinafter described and particularly set forth in the appended claim.

A window sash constructed in accordance with our invention is illustrated in the accompanying drawings in which,

Figure 1 is an exterior elevation. Fig. 2 a transverse section, and Fig. 3 an interior elevation.

Referring by reference characters to this drawing, the numeral 1 designates the frame of a window sash which is representative of any desired metallic or fire proof sash construction, and is intended to represent a size such as to require one horizontal and two vertical muntins, though of course it will be understood that if the sash were smaller less muntins would be required.

While as above stated the sash is intended to be representative of any desired construction we have, as a matter of fact, shown in the drawings a sash such as disclosed in the application of Wm. Schmidt, filed July 25/10, #573807, though it will be understood that the invention is not limited to this type of sash. The sash is provided with rabbets 1^a for holding the edges of the glass. These rabbets are of a size to give the holding surface required by the underwriters.

3 designates the glass which consists of a single pane of the size of the sash and the numerals 4, 4, &c., designate the muntins. These are made of narrow bars, preferably of solid steel located in line with each other upon the front and rear faces of the glass, as indicated at 4^a and 4^b in Fig. 2. The bars are preferably made of solid metal such as steel of any suitable design of cross section. The bar 4^a is perforated for the passage of a screw and the bars 4^b are provided with threaded openings in alinement with the perforations and similar alining openings are drilled through the glass pane, and the screws 5 are passed through the openings and screwed into the bars 4^b, as serving to draw the two bars together to hold the glass firmly between them.

The construction such as described produces a sash with the appearance of six separate panes, with narrow muntins, whereas as a matter of fact the sash has but one pane, but is as effective as the ordinary type of metal sash provided with large muntins and small panes, while it is far more attractive, producing a window which is suitable for use in any situation.

Owing to the unsightly appearance of muntin constructions heretofore used such constructions have seldom been used excepting in alley exposures. By the present construction as above described, there is little if any detracting from the appearance of the window and practically no obstruction to the light, while at the same time the muntins effectively brace the glass and keep it from bulging and pulling out of the sash. When exposed to fire the muntin on the face of the sash away from the fire adds rigidity to the one exposed to the heat and keeps the glass from the bulging action referred to.

The ends of the muntin may be held in the sash frame by screws or rivets 5^a, or simply let into recesses therein, as indicated at 5^b, and we have shown in the drawings a combination of both methods of securing the muntins at their ends. The ends, where not held by rivets, permit of expansion and contraction under changes of temperature.

Having thus described our invention what we claim is:—

In fire proof window construction, a sash, a single pane of wired glass held therein, and independent muntins upon opposite

faces of the glass in line with each other, the ends of part of the muntins being seated in recesses in the sash and unconnected therewith to allow for expansion and contraction and screws passing through openings in the glass and connecting opposing muntins together.

In testimony whereof, we affix our signatures in presence of two witnesses.

GEORGE H. RIDDELL.
WILLIAM J. ROWE.

Witnesses:

H. W. STANNARD,
E. G. CASE.