

No. 878,541.

W. F. KIESEL, JR.

PATENTED FEB. 11, 1908.

WINDOW SASH.

APPLICATION FILED APR. 23, 1907.

2 SHEETS—SHEET 1.

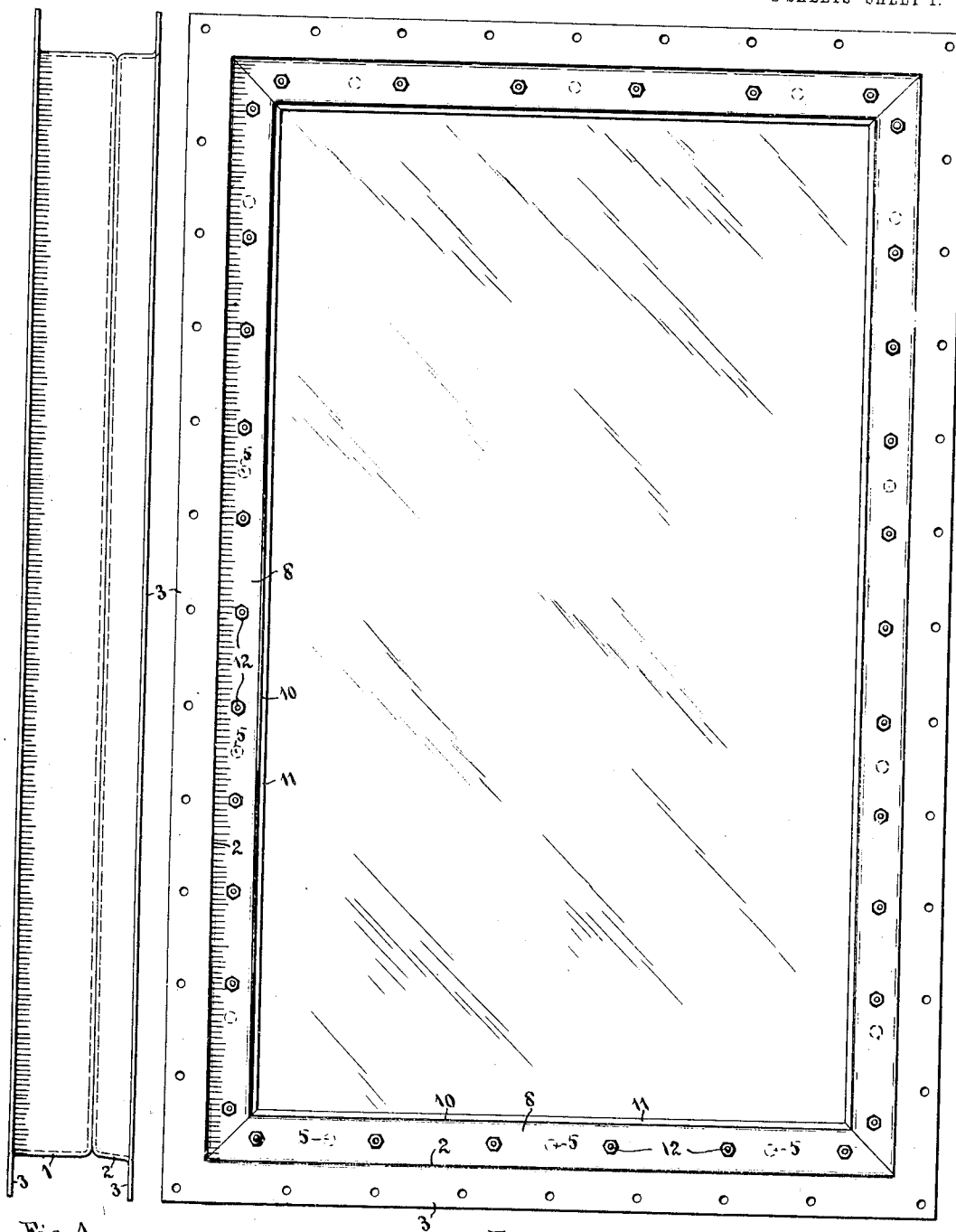


Fig. 1.

Fig. 2.

WITNESSES:

L. V. Stockton
M. E. Verbeck.

INVENTOR

William F. Kiesel, Jr.

BY

Eugene Dixon
ATTORNEY

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2 SHEETS—SHEET 2.

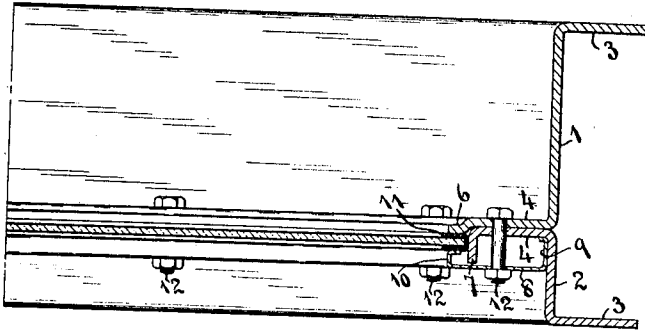


Fig. 5.

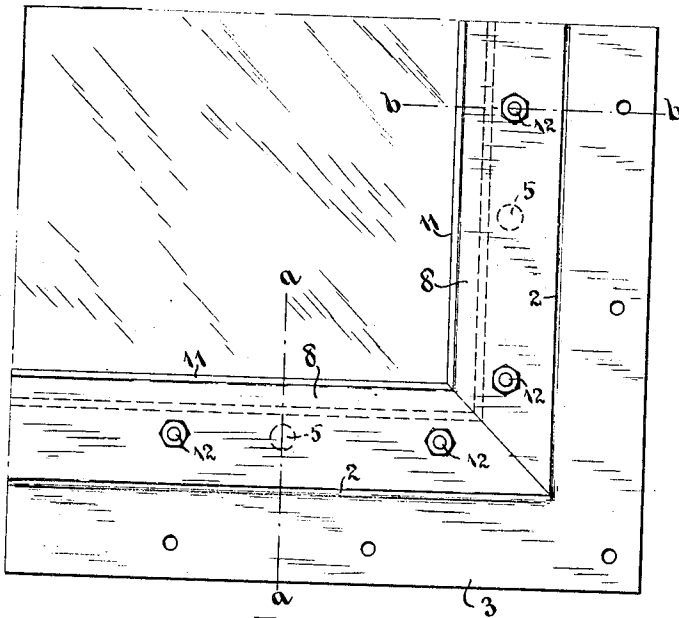


Fig. 3.

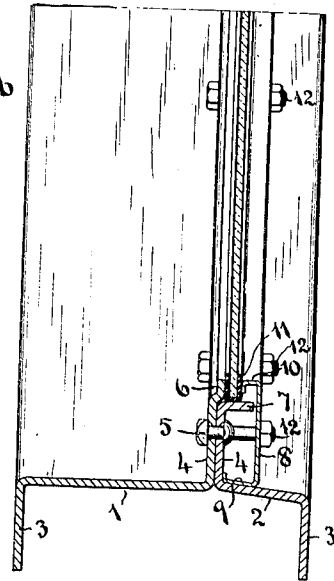


Fig. 4.

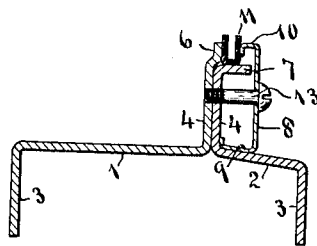


Fig. 6.

WITNESSES:

L. V. Stoetzel
M. E. Verbeck.

INVENTOR

William F. Kiesel, Jr.

BY

Eugene Diven
ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM F. KIESEL, JR., OF ALTOONA, PENNSYLVANIA.

WINDOW-SASH.

No. 878,541.

Specification of Letters Patent.

Patented Feb. 11, 1908.

Application filed April 23, 1907. Serial No. 369,750.

To all whom it may concern:

Be it known that I, WILLIAM F. KIESEL, Jr., a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Window-Sashes, of which the following is a specification.

This invention relates to improvements in metal window sashes, and more particularly to fixed sashes as applied to steel railway cars of the baggage or express type; my object being to provide a sash of this character which will be constructed of the least number of parts, and within which the glass may be readily fastened with dust- and weather-proof joints, provision being made for variations in the thickness of the glass, where it is fastened in the sash.

I attain my object by constructing the sash in the manner illustrated in the accompanying drawings, in which—

Figure 1 represents an end elevation and Fig. 2 a side elevation of the complete sash; Fig. 3, a detail on an enlarged scale, showing one corner of the sash; Figs. 4 and 5, sectional views on the lines *a—*a** and *b—*b**, respectively, in Fig. 3; and Fig. 6, a detail showing a modification.

Like numerals designate like parts in the several views.

The sash consists of two parts, namely, the inside plate 1, and the outside plate 2, said plates being provided with outturned flanges 3, and with inturned abutting flanges 4, said abutting flanges being riveted together at suitable intervals by the rivets 5. These plates 1 and 2 are continuous around the entire sash, the stiles and top and bottom rails being cut and pressed out from one sheet of metal into the Z-shaped cross-section shown in the drawings. The flanges 3 overlap the outside and inside sheathing of the car, and are riveted thereto.

The flanges 4 along their inward edges are bent at 6 and 7, to provide the rabbets into which the glass is fitted; and to secure the glass in these rabbets I provide the light clamping strips 8, of channel form, with one flange 9 resting upon the outside plate 2, and against the flange 4, the other flange 10 being

again flanged along its edge to adapt it to press against the glass in the rabbets. The edges of the glass are protected by rubber strips 11 of U-shaped cross-section, which also serve as packing strips to make the joints dust- and weather-proof. The clamping strips 8 are drawn up into place by bolts 12, positioned at suitable intervals around the sash. Instead of these bolts I may employ screws 13, as illustrated in Fig. 6. By means of these clamping strips 8, the inward flanged edges of which may be set up at varying distances from the wall 6 of the rabbets, variations in the thickness of the glass will be accommodated, and the sash adapted to receive any thickness of glass, the joint being made perfectly tight, even where a particular pane of glass varies in thickness.

What I claim as my invention and desire to secure by Letters Patent is—

1. A window sash having stiles and rails formed from inside and outside plates of Z-shaped cross-section, the abutting flanges of said plates being riveted together and bent along their edges to form rabbets to receive the glass, and clamping strips fastened to said flanges to hold the glass in place.

2. A window sash having an inset surface on the stiles and rails and rabbets to receive the glass formed at the edges thereof, clamping strips of channel form having one flange set against said surface and the other flange positioned opposite the rabbets, and means for fastening said strips in place to hold the glass within the rabbets.

3. A window sash having stiles and rails formed from inside and outside plates set one against the other, one of said plates being bent away from the other to form a rabbet open at one side, and adjustable means applied to said plates for covering the open sides of the rabbets and fastening the glass within the rabbets.

In testimony whereof I have affixed my signature, in presence of two witnesses.

WILLIAM F. KIESEL, JR.

Witnesses:

J. F. MECK,
J. C. STORM.