

S. W. POPEL.
 GUARD FOR ROOFS.
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935,055.

Patented Sept. 28, 1909.

Fig. 1.

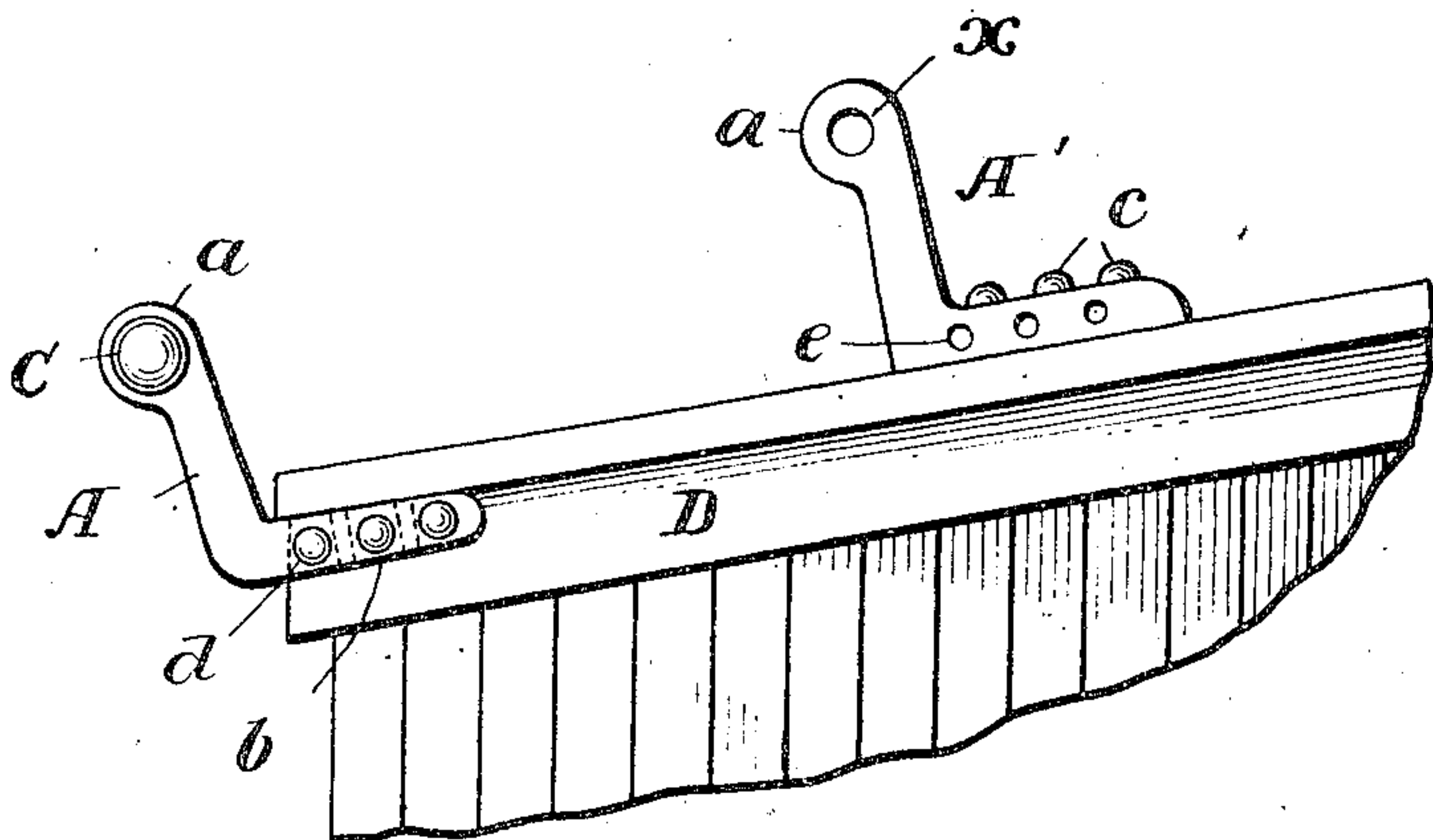


Fig. 2.

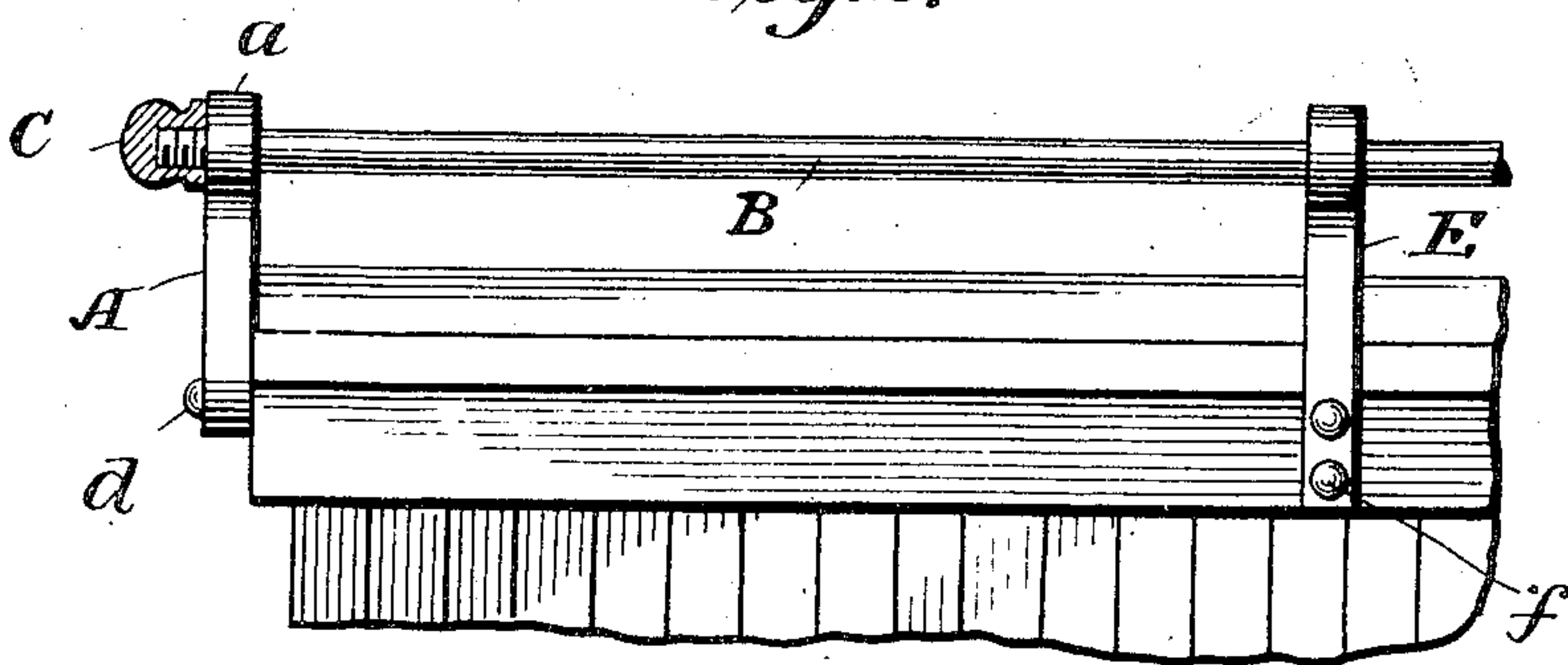
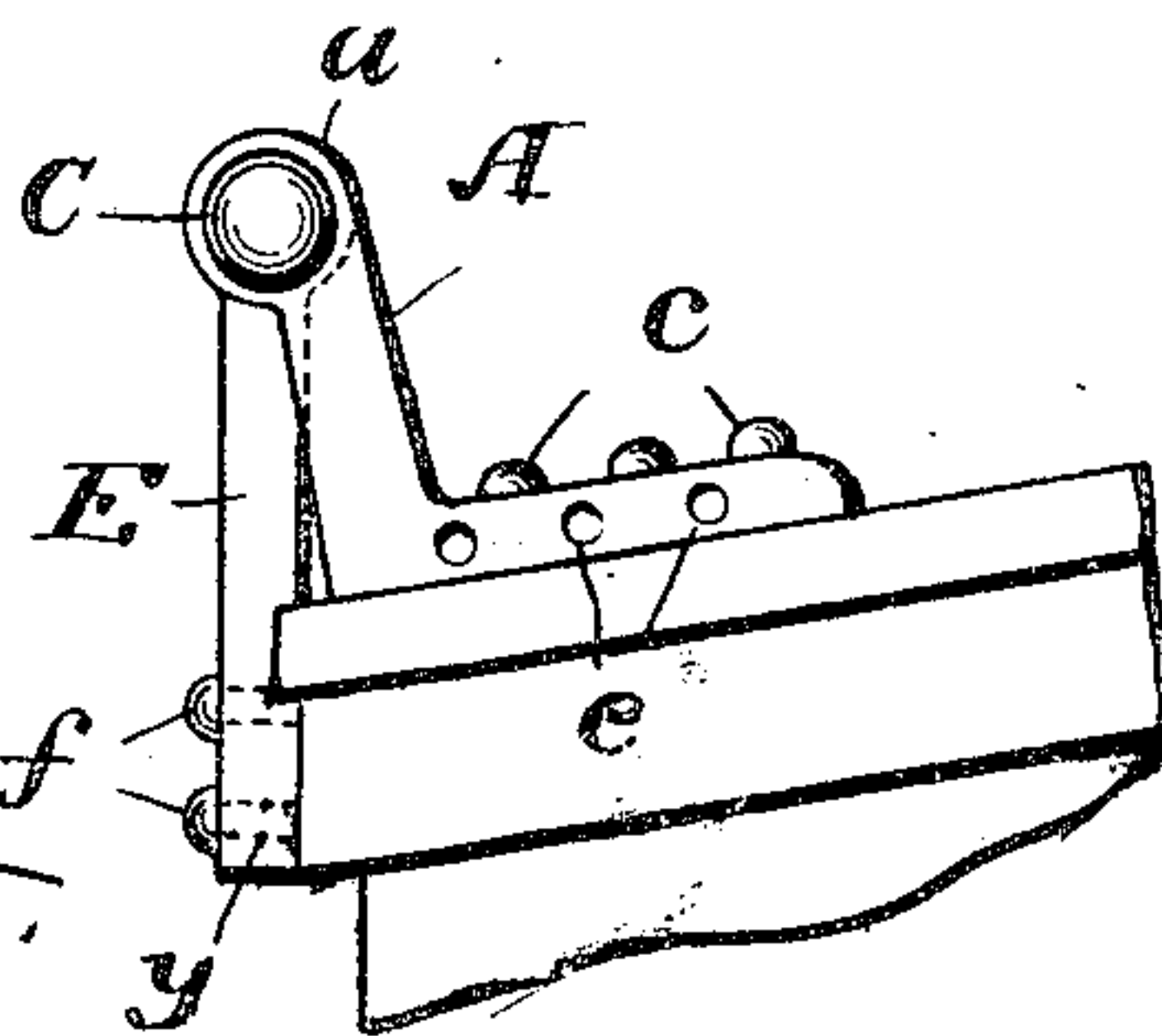


Fig. 3.



Witnesses

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935,055.

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To all whom it may concern:

Be it known that I, SAMUEL W. POPEL, a citizen of the United States, and resident of Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Guards for Roofs, of which the following is a specification.

My invention relates to guards for roofs, etc., adapted to be secured at the edges thereof or at any desired point, and my invention consists of certain brackets and rails supported and connected thereto, constructed and combined as fully set forth hereinafter and as illustrated in the accompanying drawing, in which:

Figure 1 is an end view of part of a car roof illustrating my invention; Fig. 2 a side view in part section of one of the brackets and one end of the rail; Fig. 3 a view illustrating the combination of different forms of brackets with the rail.

My improved guard consists of a plurality of brackets A, a cross-bar B, supported thereby, and knobs C detachably connected to the ends of the cross-bar so as to hold it in place in the brackets.

As shown the brackets A are L-shaped and the vertical member or portion has an enlargement *a*, in which is a socket or opening *x*, through which the cross-bar B is passed. The horizontal or base member *b* of each bracket has two faces, one of which may be placed upon a base, as in the bracket A', Fig. 1, and with vertical openings for the passage of vertical screws or bolts *c* into the roof or other object to which the bracket is to be secured. The brackets may also have cross openings *e*, and side bearing faces so that the said brackets may be secured by cross screws or bolts *d* to the sides of the rafters D of the roof. As shown the brackets are illustrated in connection with a railway car or other roof having the rafters D. The horizontal members of the brackets are applied to the sides of the rafters and bolted thereto while the vertical members extend upward above the edge of the roof and therefore support the rail B at the extreme edge as shown.

The rail is provided with threaded ends, or is otherwise adapted for the detachable application of the knobs C, which are put

in place after the rail has been passed through the brackets and thereby hold the same firmly in its position. In some cases it is desirable to support the rail at points between the brackets A, and to further strengthen the same, and for this purpose I may employ supplemental brackets E which have eyes or openings for the passage of the rail at one end and are straight so as to afford side faces, and with cross openings *y* for the passage of horizontal bolts into the joist or rafter or other member which supports the bracket A. By this means the rail is held in place by the vertical screws or bolts *c* and the horizontal screws or bolts *f*.

I claim as my invention:

1. The combination with a roof and its rafters D, of L-shaped brackets having eyes or openings at the ends of the vertical members, and transverse openings in the horizontal members adapted for the reception of bolts passing laterally into the rafters, and rails passing through the said eyes and having knobs C detachably secured to the ends thereof.

2. The combination with a roof and its rafters D, of L-shaped brackets having eyes or openings at the ends of the vertical members, and transverse openings in the horizontal members adapted for the reception of bolts passing laterally into the rafters and rails passing through the said eyes and having knobs C detachably secured to the ends thereof, and intermediate straight brackets E having eyes in line with those of the other brackets and with transverse openings for receiving transverse bolts.

3. A bracket for guard rails having two members at about right angles to each other, one with a terminal eye or opening and the other with openings for the reception of securing bolts which extend substantially at right angles to each other, whereby the bracket can be attached to a support with either its base or a side face in contact therewith as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL W. POPEL.

Witnesses:

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