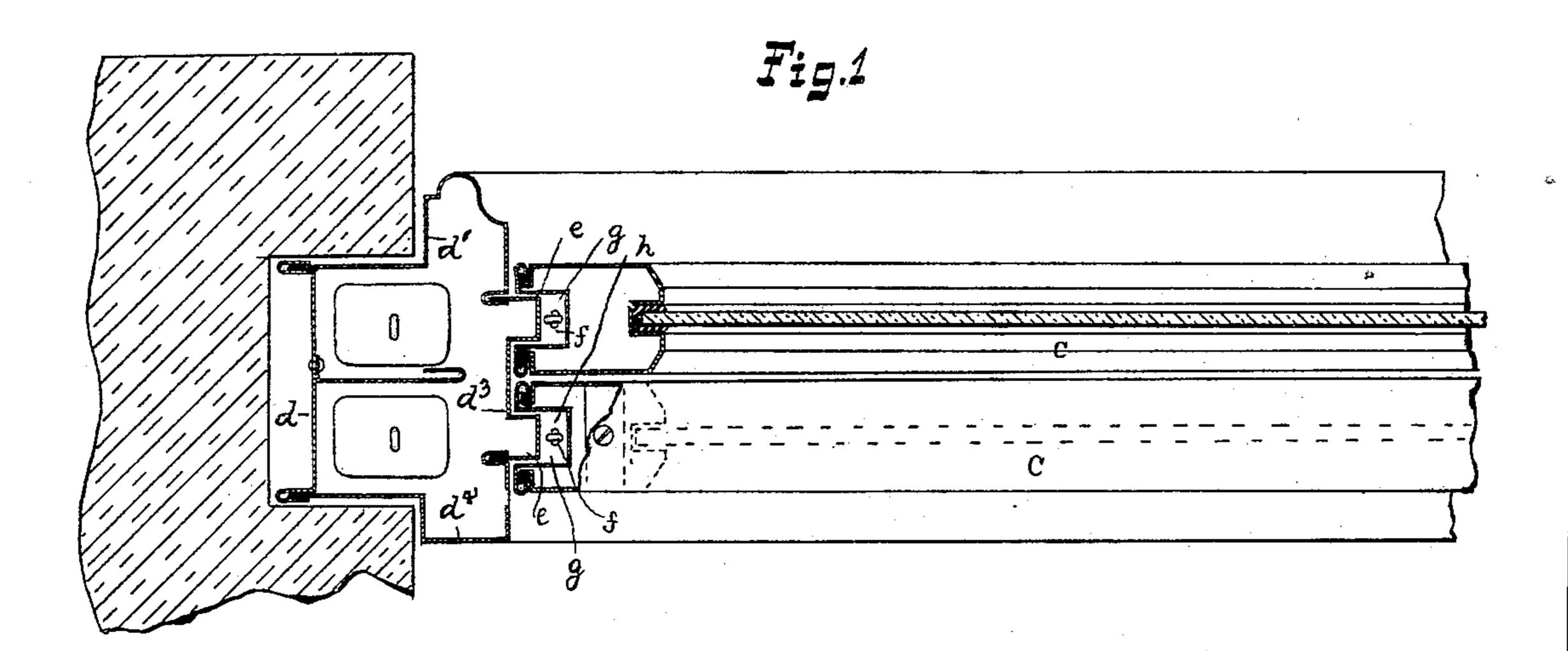
No. 620,669.

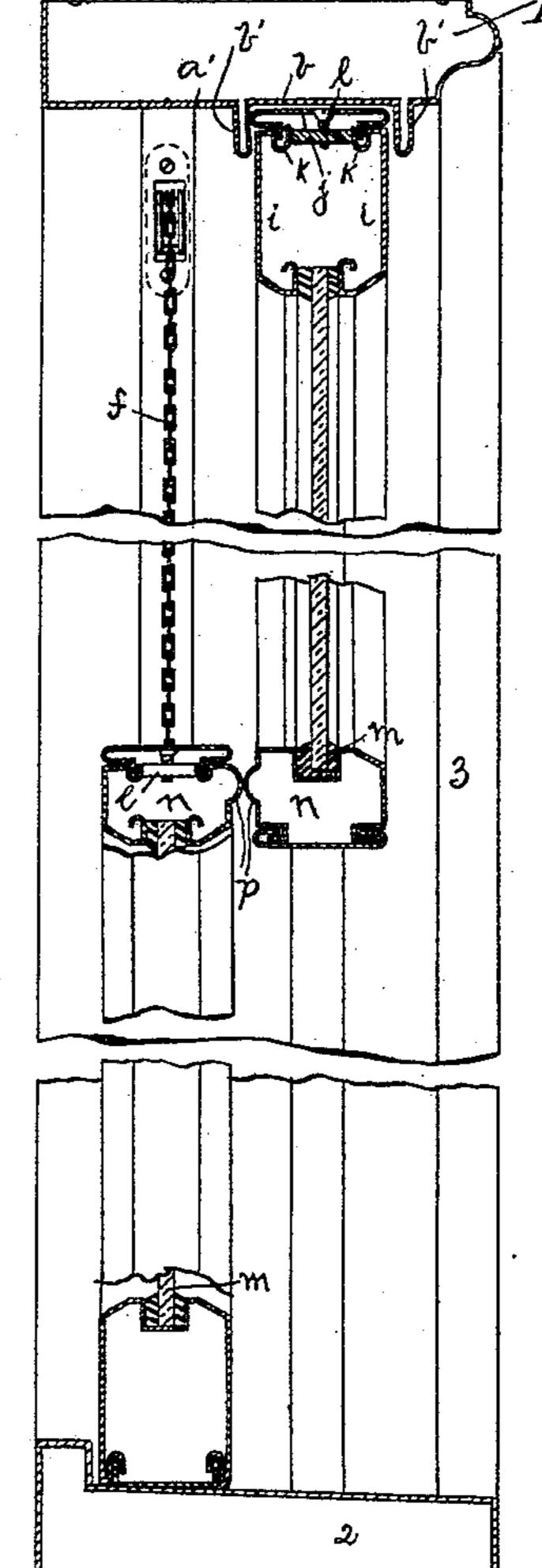
Patented Mar. 7, 1899.

A. RASNER. METALLIC FRAME AND SASH.

(Application filed Sept. 16, 1898.)

(No Model.)





WITNESSES:

United States Patent Office.

ABRAHAM RASNER, OF PITTSBURG, PENNSYLVANIA.

METALLIC FRAME AND SASH.

SPECIFICATION forming part of Letters Patent No. 620,669, dated March 7, 1899.

Application filed September 16, 1898. Serial No. 691,081. (No model.)

To all whom it may concern:

Be it known that I, Abraham Rasner, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Frames and Sashes; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 indicates a transverse section of my improved metallic frame and sash. Fig. 2 indicates a vertical section of same.

My invention relates to improvements in metallic frames and sashes for windows; and it consists in the novel construction and arrangement of parts hereinafter set forth, reference being had to the accompanying drawings, forming part of this specification, in which like reference characters indicate like

parts wherever they occur.

Referring to the accompanying drawings, 1 is the top of the frame, 2 the bottom, and 3 the sides thereof, which are formed of light sheet metal and suitably conjoined at their ends. The said top is formed of two separate pieces a a', riveted or otherwise secured together. The face of said piece a', and also the faces of the sides of the frame, may be of any suitable configuration for architectural effect, and are preferably provided with a guide-channel b, formed by the downwardlyprojecting horizontal ribs b' b', for the reception of the tops of the sashes cc. The sides of said frame are formed of four separate pieces $d d' d^2 d^3$, the inner end or edge of the parts $d' d^2$ being secured in V-shaped laps formed in the ends or edges of the part d, and the inner edge or end of part d^3 being secured in similar laps or flanges in the outer ends of parts d' and d^2 , respectively. The said part \bar{d}^3 is formed with two outwardly-projecting tongues e e, of comparative width, which form internal channels, in the upper end of which are secured the chain-pulleys ff. The said tongues e e are adapted to enter corresponding channels g g in the sides of the sash, the channels in the sash being of greater depth |

than said tongues are in length, so as to form 50 spaces h h, in which the chains are adapted to travel. The upper member of each of said sashes is formed, preferably, of three pieces i i and j. The upper inner edges of said pieces i i terminate in V-shaped flanges or laps k k, 55 between which a nut l is soldered or otherwise secured, connecting said pieces. The said piece j forms the detachably-secured top of said upper member, being screwed to said nut to admit of this and to enable the glass 60 to be inserted through the top in the grooves m m in the inner edges of sash. The bottom member n of the outer sash and the top member o of the inner sash are preferably provided with projections p and p to form 65 weather-proof connections when said sashes are in normal position.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a metallic window frame and sash, the combination of a frame formed of four separate pieces d d' d^2 d^3 , the said part d^3 being formed with two outwardly-projecting tongues and a wider inwardly-projecting 75 tongue and a sash having channels in the outer sides of the same to receive the outwardly-projecting tongues of the frame, the channels being deeper than said tongues are long whereby spaces for chains are formed, 80 substantially as herein set forth.

2. In a metallic window frame and sash, the combination of a frame formed of four separate parts d d' d^2 d^3 , the said part d^3 being formed with two outwardly-projecting 85 tongues and a wider inwardly-projecting tongue, and sashes having channels in their outer sides, the top of the upper members of each of said sashes being detachably secured to the sides, substantially as herein described. 90

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

ABRAHAM RASNER.

Witnesses:

CHAUNCEY LOBINGIER, JNO. H. RONEY.