

No. 716,966.

Patented Dec. 30, 1902.

C. A. WALCHNER.

FRAME FOR SLIDING WINDOWS, SASHES, OR THE LIKE.

(Application filed Dec. 29, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

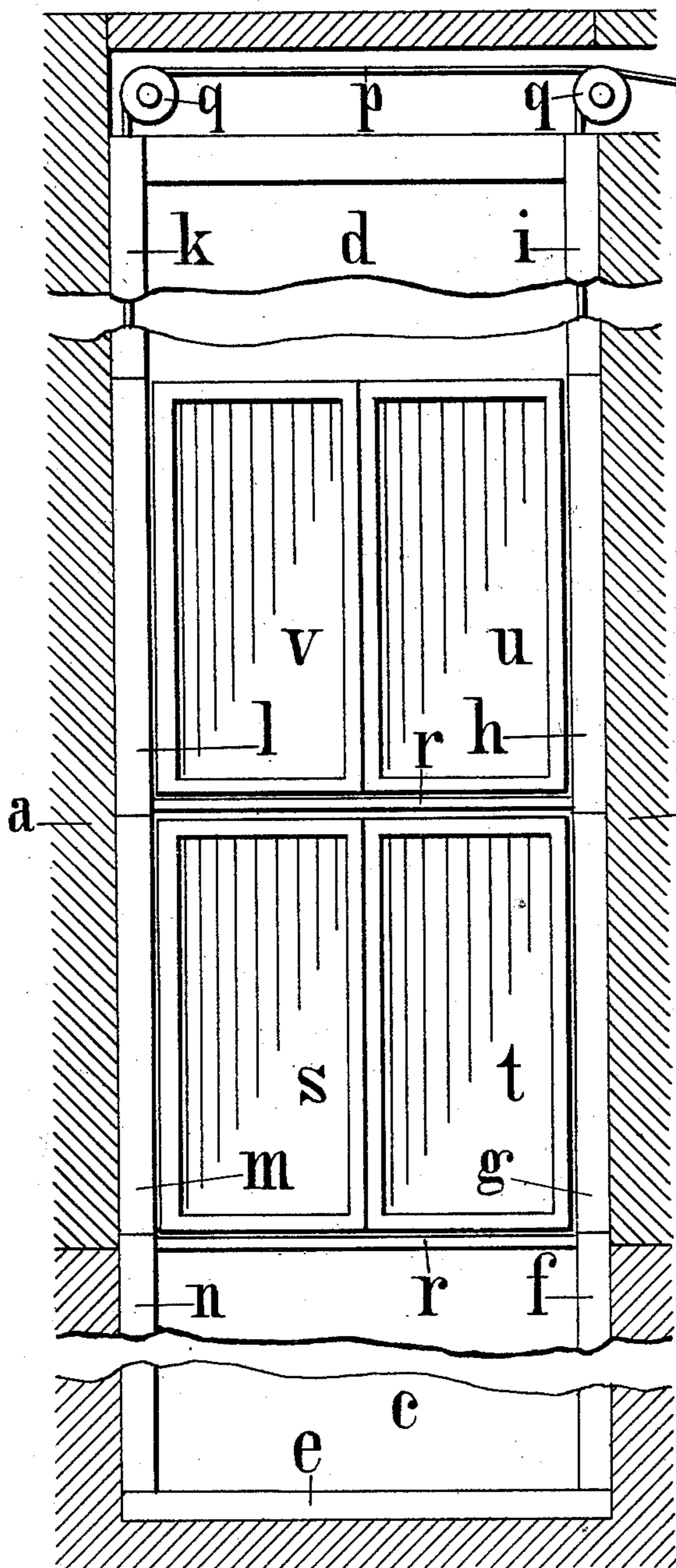
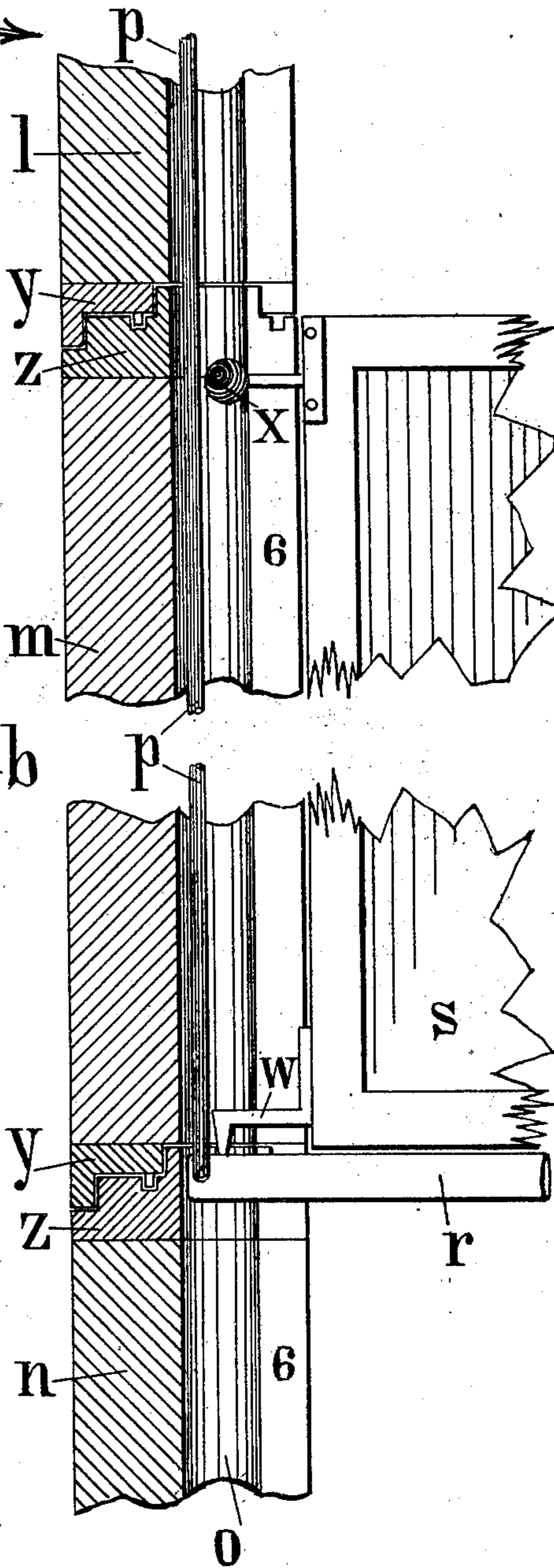


Fig. 2.



WITNESSES:—

Ellis Owen.
Iden Puilli.

INVENTOR:—

C. A. Walchner
by W. E. Evans
Attorney

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2 Sheets—Sheet 2.

Fig. 3.

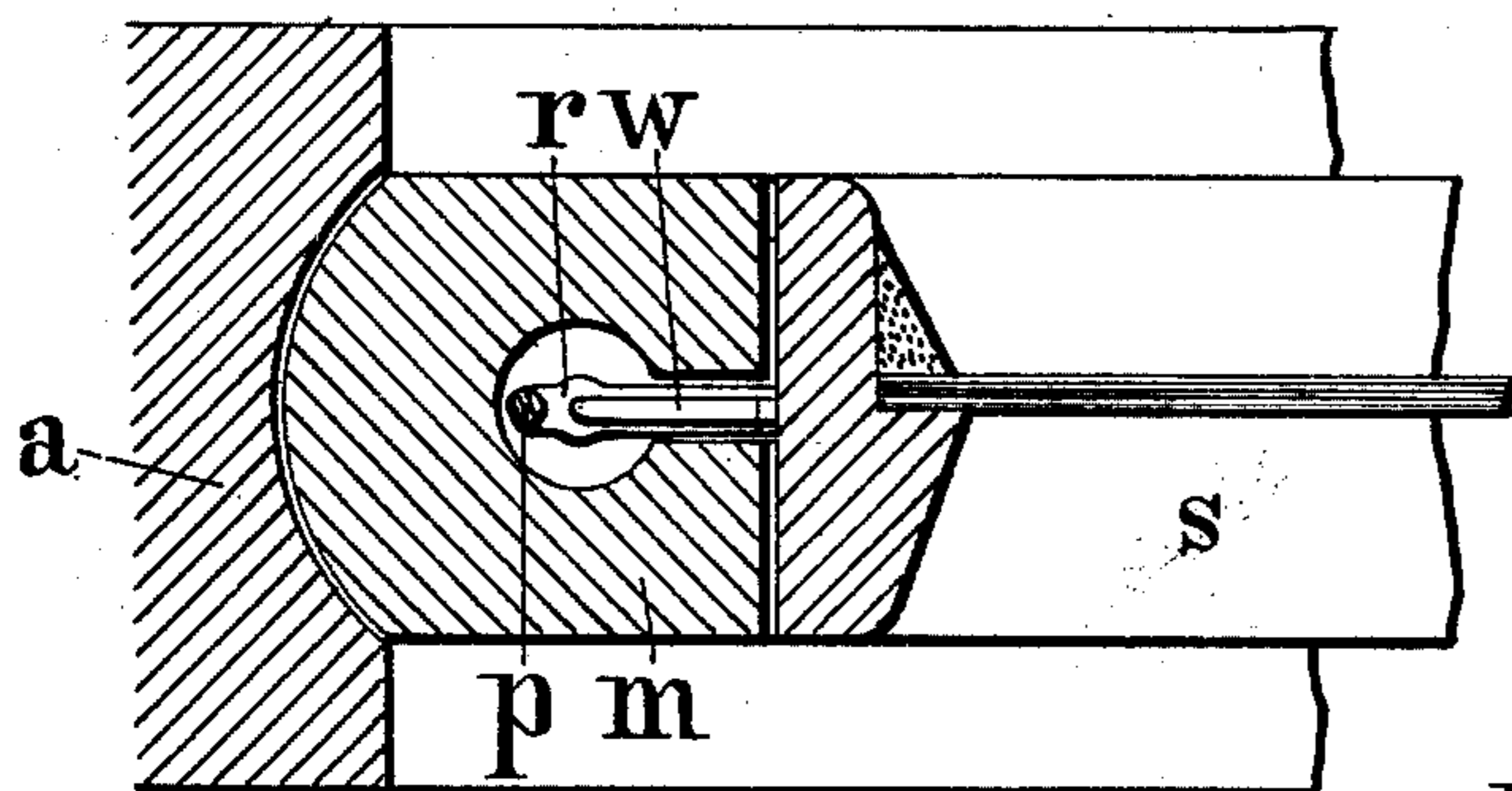


Fig. 4.

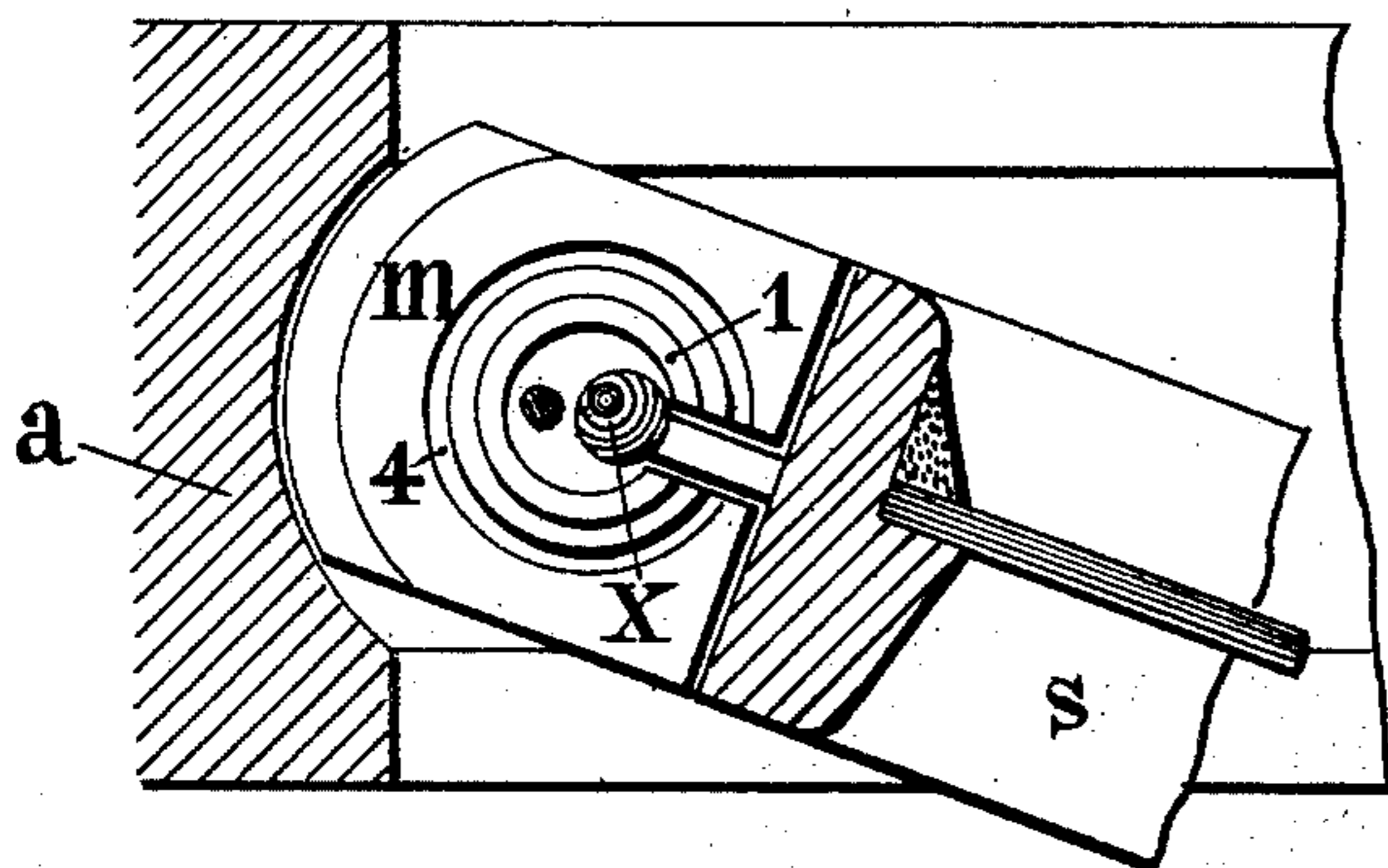
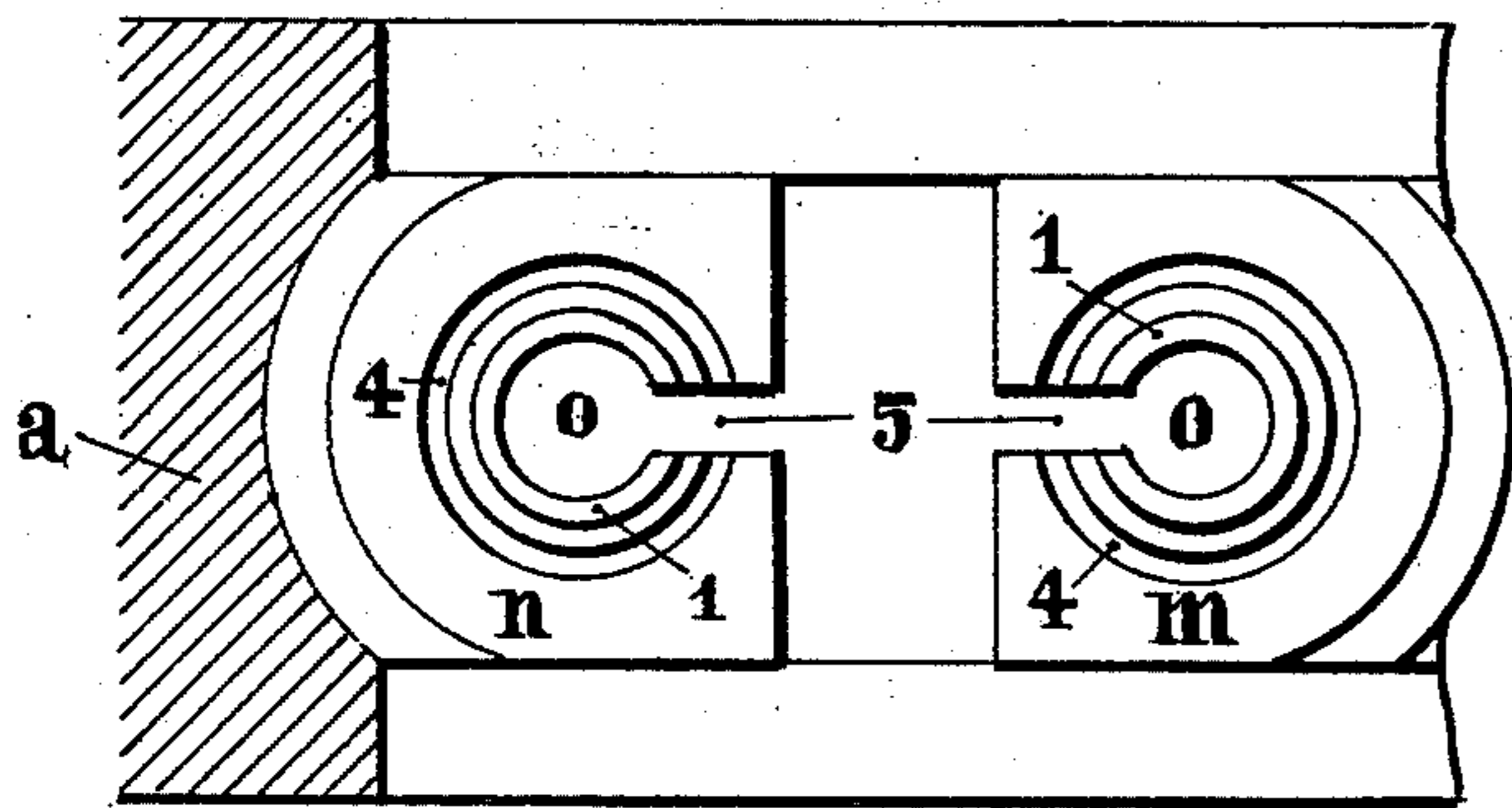


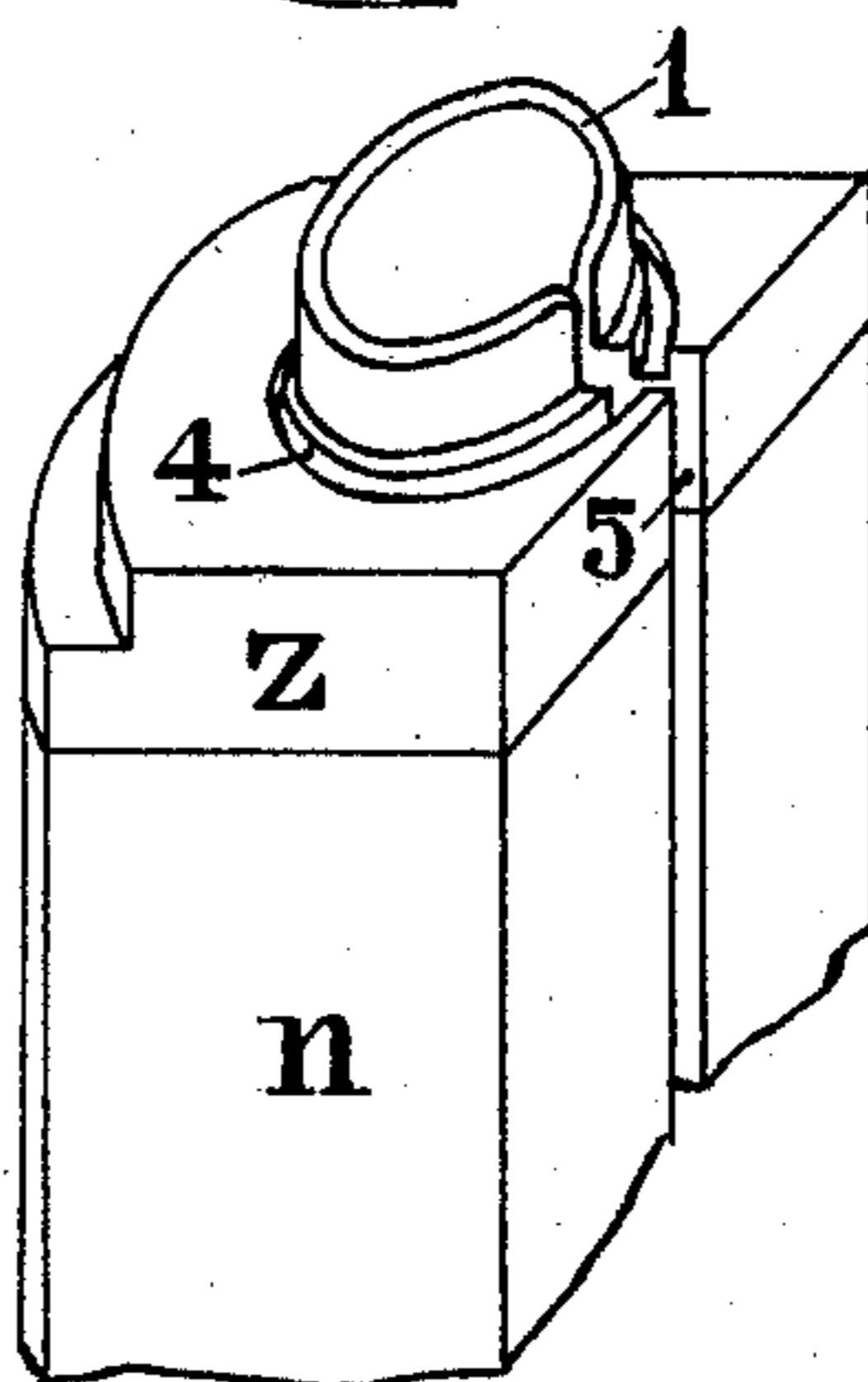
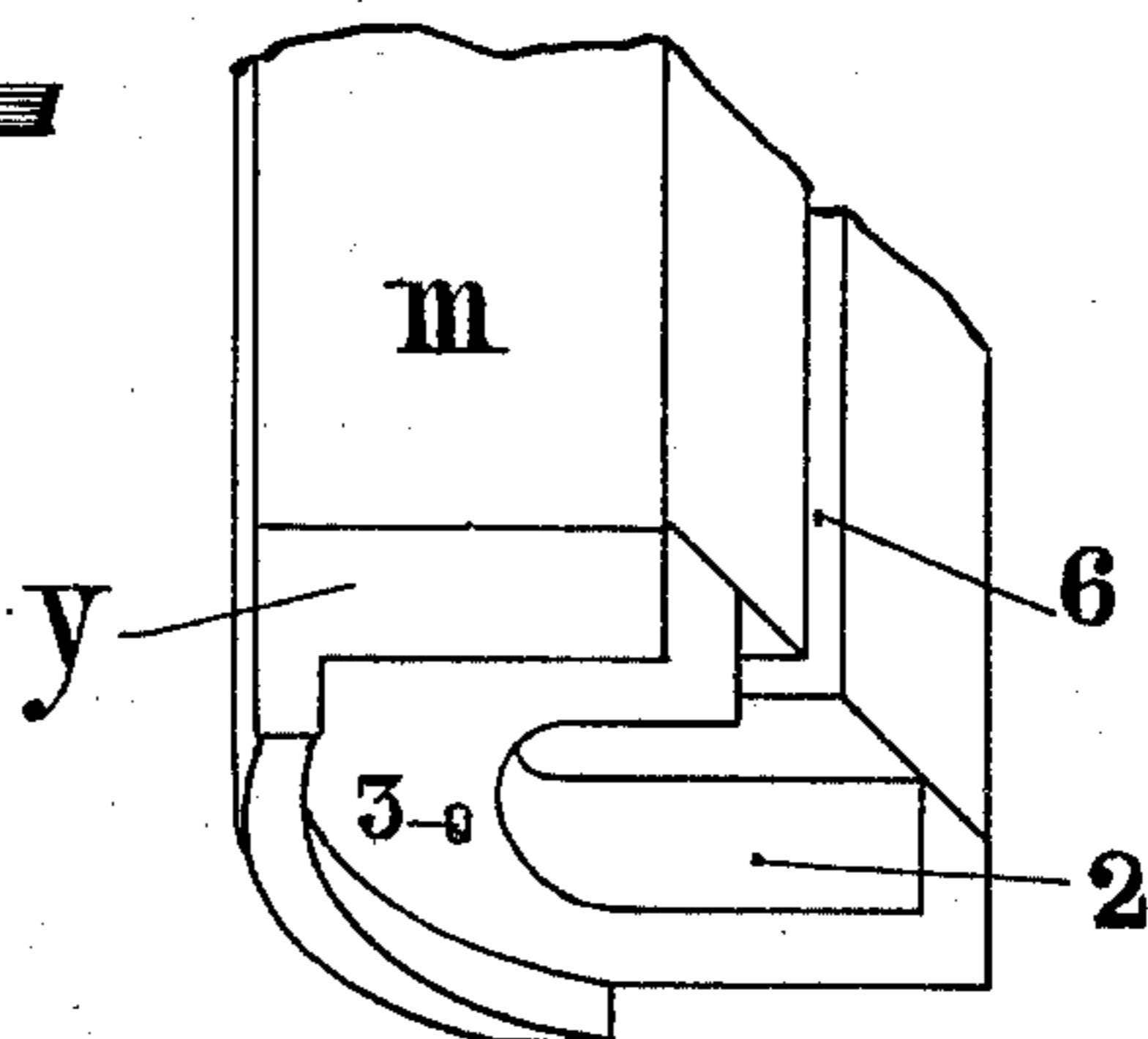
Fig. 5.



WITNESSES:-

Ellis Owen.
John Smith.

Fig. 6.



INVENTOR

C. A. Walchner
by W. E. Evans
Attorney.

UNITED STATES PATENT OFFICE.

CARL AUGUST WALCHNER, OF OFFENBACH-ON-THE-MAIN, GERMANY.

FRAME FOR SLIDING WINDOWS, SASHES, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 716,966, dated December 30, 1902.

Application filed December 29, 1900. Serial No. 41,500. (No model.)

To all whom it may concern:

Be it known that I, CARL AUGUST WALCHNER, a subject of the German Emperor, and a resident of 17 Ludwigstrasse, Offenbach-on-the-Main, Grand Duchy of Hesse, in the Empire of Germany, have invented new and useful Improvements in Frames for Sliding Windows, Sashes, and the Like, (for which I have applied for a patent in Germany, bearing date June 1, 1900,) of which the following is a specification.

The present invention relates to frames for sliding windows, sashes, and the like in which all the parts of the window or sash lie in the same plane and are arranged in such manner that they can be conveniently opened or taken out of the frame in a very simple and convenient manner.

In the accompanying drawings a window with two double sashes or casements is illustrated by way of example.

Figure 1 shows in partial section the window-opening, hollow spaces above and beneath the window for the reception of the double sashes or casements when they are lifted up or down. Fig. 2 is a detail sectional elevation showing the connection of the sash in the sash-guides and the connection of the revoluble and removable parts of the sash-guide with the fixed parts. Fig. 3 is a detail cross-section through the revoluble and movable sash-guides. Fig. 4 is a section corresponding to Fig. 3, but having the revoluble parts of the sash-guide and part of the sash shown in an angular position when the window is opened. Fig. 5 is a sectional plan showing the manner in which the removable part of the sash-guide is removed from the fixed part. Fig. 6 is a perspective detail view of the revoluble and fixed parts of the sash-guides, showing the manner of connection.

In the window-opening *a b* two hollow spaces *c* and *d* are respectively provided beneath and above the window. A frame *e, f, g, h, i, k, l, m*, and *n* is mounted within the opening, and the vertical members of this frame are provided with channels *o* and lateral slots *6*. Sash-cords *p* traverse the channels *o* and are passed over pulleys *q* and may be conveniently connected at their opposite extremities to hanging weights, as usual.

One or more cross-beams *r* are carried by the sash-cords *p*, which cross-beams are moved up and down by hand in the well-known manner. Upon the cross-beams *r* the double sashes or casements *s t u v* are mounted, so as to move with the cross-beams and so as to be opened or closed in the well-known manner.

In order to allow the window to be opened or closed by turning the sashes or casements, some parts of the frame or sash guides, such as *g m*, are turnable, as illustrated in Fig. 4. Before, however, the window is opened the cross-beam *r* must be lowered somewhat in one of the fixed frame parts or sash-guides, such as *n f*.

In turning the sashes or casements the bracket *w*, Figs. 2 and 3, is turned upon the cross-beam *r*, and on the top the sash or casement is kept in the frame part by means of the arm *x*, Figs. 2 and 4.

The channels *o* for the sash-cord *p* are provided concentrically to the turning-axis of the sashes or casements, so that the cords in opening the window by turning the casements are not affected.

The removal of the sashes may be effected in the following manner: First, the respective sashes or casements—for example, *s* and *t*—are completely lowered or lifted, so that the frame parts or sash-guides *g m* do not carry the sashes nor any part thereof, nor the cross-beam *r*. They are then turned one hundred and eighty degrees and taken out, as illustrated in Fig. 5. In that figure the movable sash-guide *m* is represented as having been moved directly out of alinement with the fixed sash-guide *n*, the slot in the movable sash-guide *m* coinciding with that of the fixed sash-guide *n*, so that thus the sash-cord passes through the slot in the former and permits of its removal in the direction indicated by the figure. The sashes are then lowered or uplifted so as to register with the recesses left by the removal, for example, of the sash-guides *m* and *g*. The sashes thus having in such position no further lateral support may be withdrawn. In order, however, to avoid that the removable frame parts or sash-guides shall be taken out when the window is merely opened, these removable parts or guides are secured in the manner shown in Fig. 6. A

journal-plate z is provided upon the fixed part or guide, such as n , while a turning-plate is provided upon the extremities of the revoluble and removable part or guide, such as m . The journal-plate z is provided with a cylindrical boss 1, which engages in a corresponding recess 2 in the turning-plate y . The latter has a pin 3, which engages in a groove 4 of the journal-plate z . It therefore follows that the removable sash-guides can only be taken off when the pin 3 of the turning-plate y leaves the groove 4 of the journal-plate z and slides out through the slot 5, which is a continuation of the continuous slot 6, provided in the frame parts or sash-guides, in which the supporting-beams r slide. After having taken out the removable frame parts or sash-guides g and m the respective cross-beams, with the sashes or casement parts, need only be lifted or lowered in order to allow of their removal.

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

1. In combination, a frame for sliding sashes, sash-guides within said frame, said guides being continuous and having slots throughout their length for the passage there-

in of a sash, and having parts thereof revoluble and movable, said parts being connected to the fixed parts, so that on rotation said parts may be taken out, substantially as described.

2. In combination, a frame for sliding sashes, sash-guides within said frame, said guides being continuous and having slots throughout their length for the passage therein of a sash, and having parts thereof revoluble and movable, said parts being carried by fixed parts of the sash-guides within turning-plates fitted thereto, having a projection engaging in an annular groove, provided on a journal-plate fitted to the respective extremities of the fixed parts of the sash-guides, said projection in one position being capable of passing out through a transverse slot provided in the turning-plate, substantially as described.

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

CARL AUGUST WALCHNER.

Witnesses:

KARL BAIER,
JEAN GRUND.