

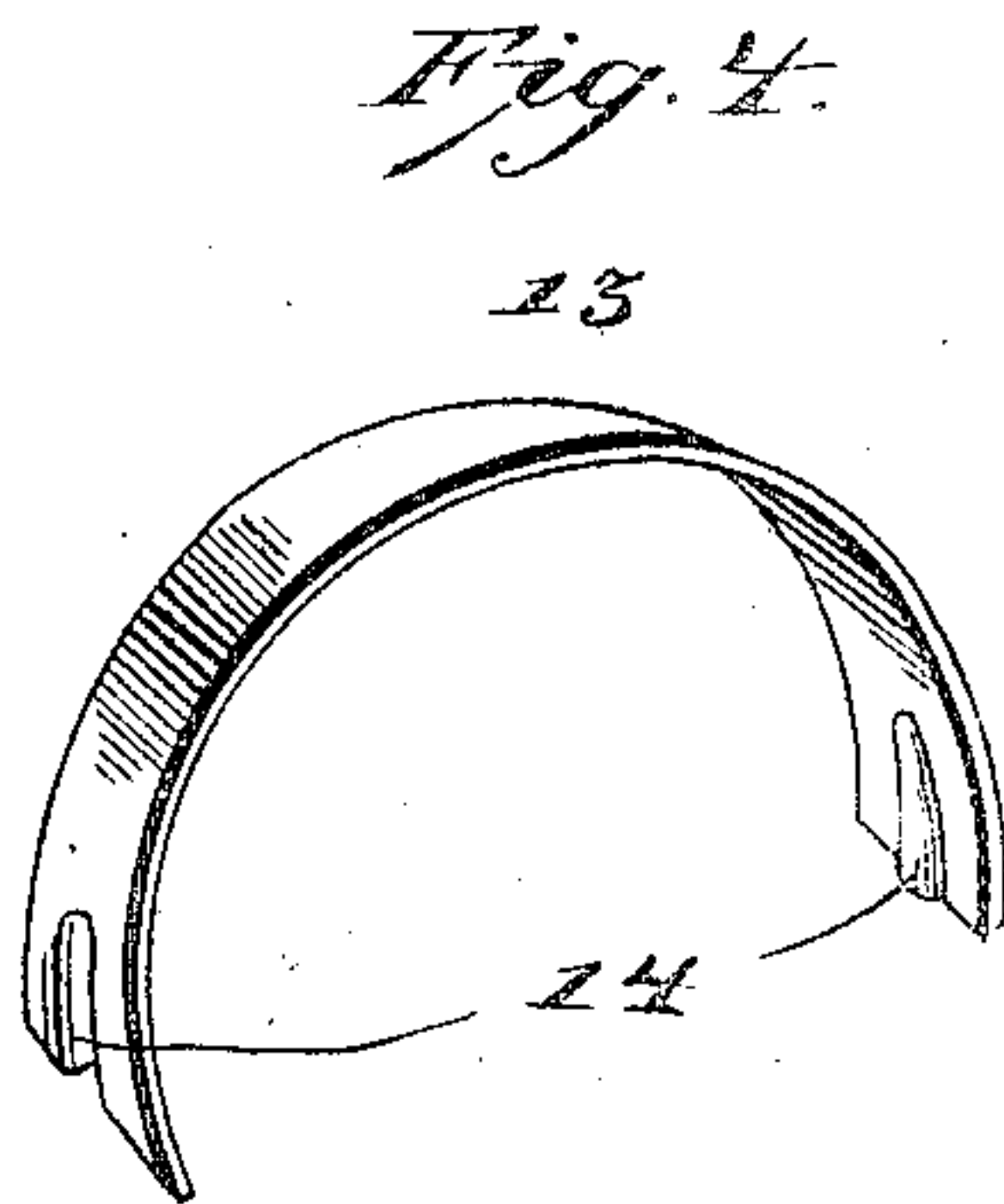
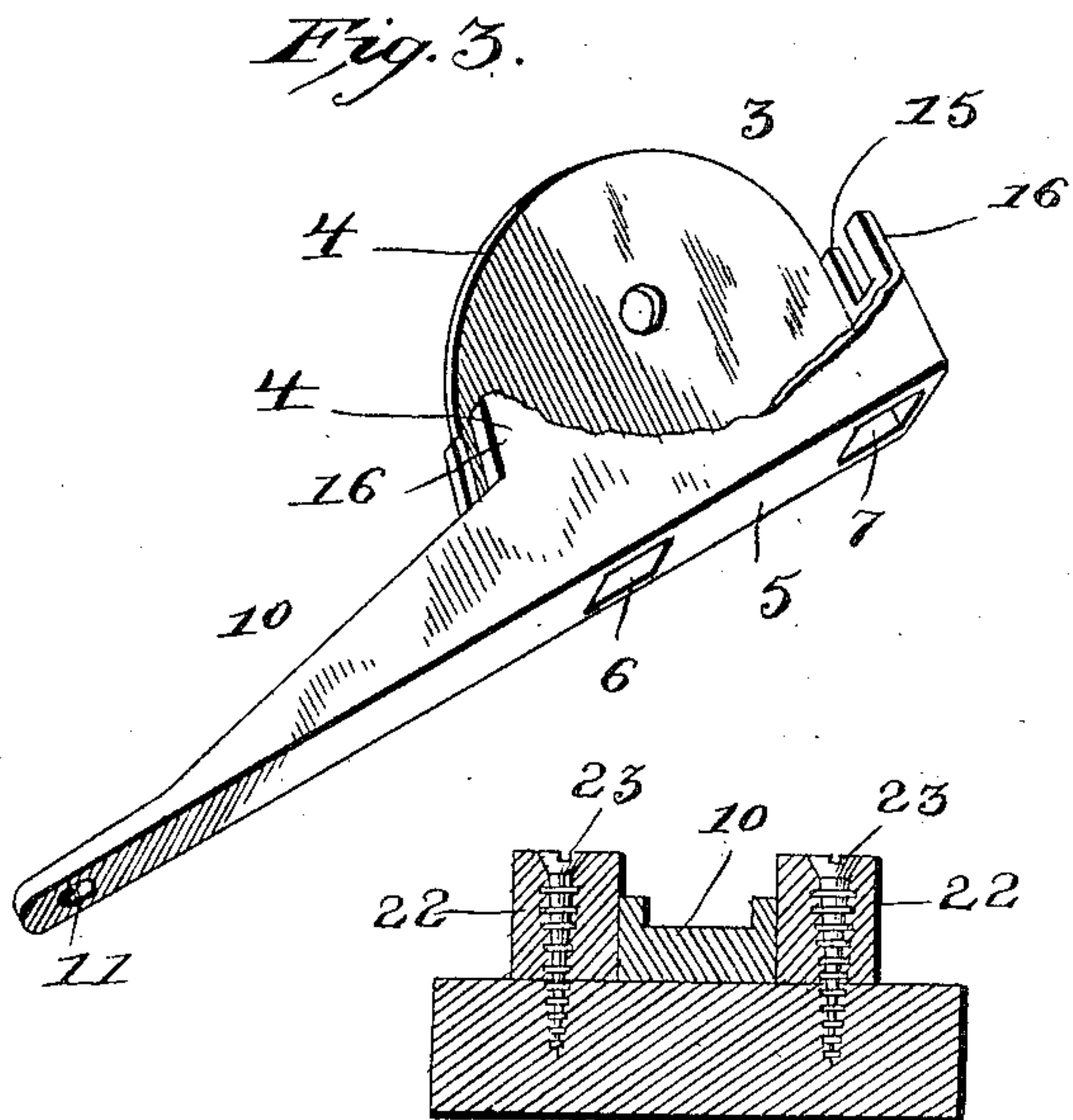
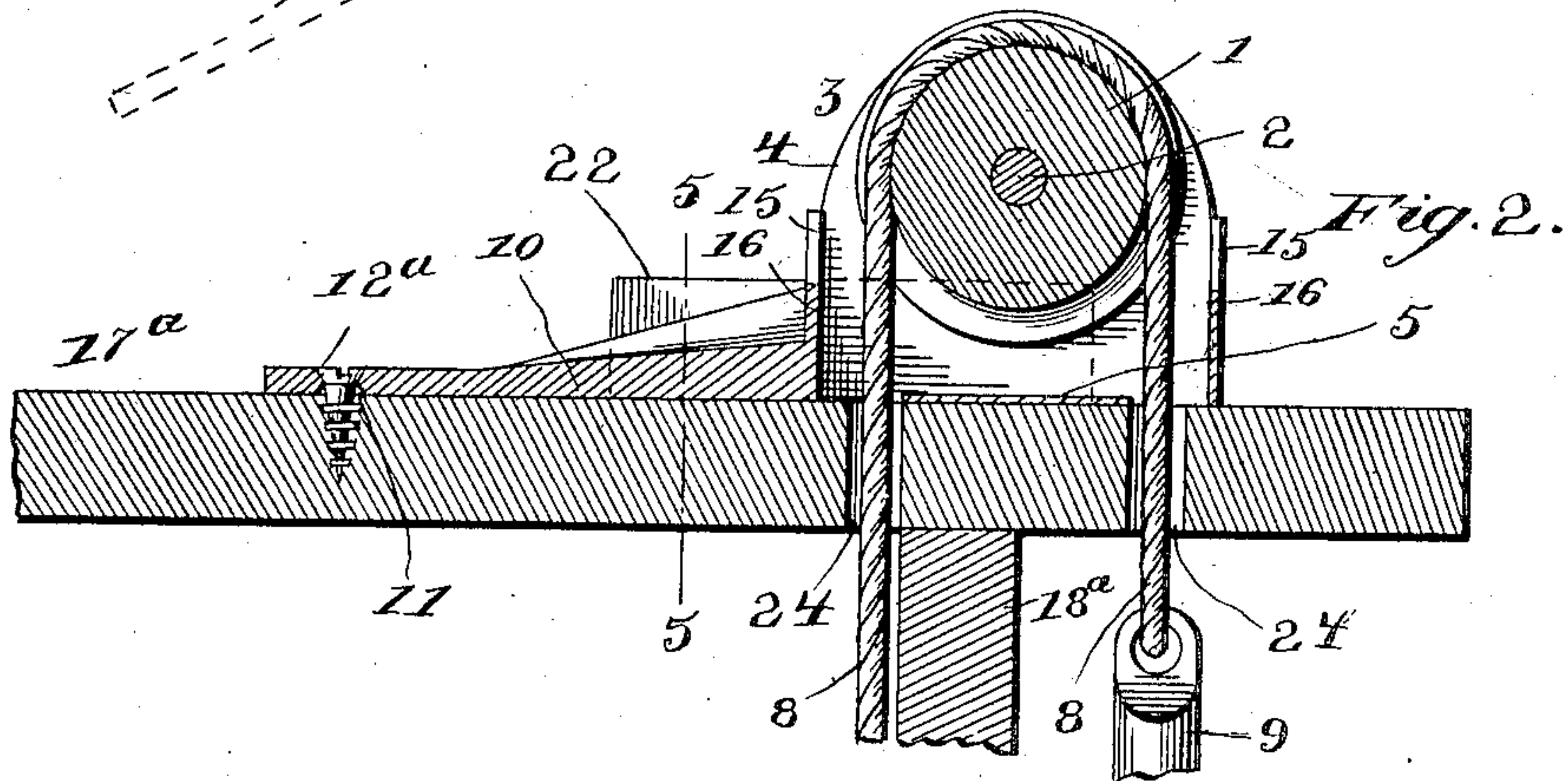
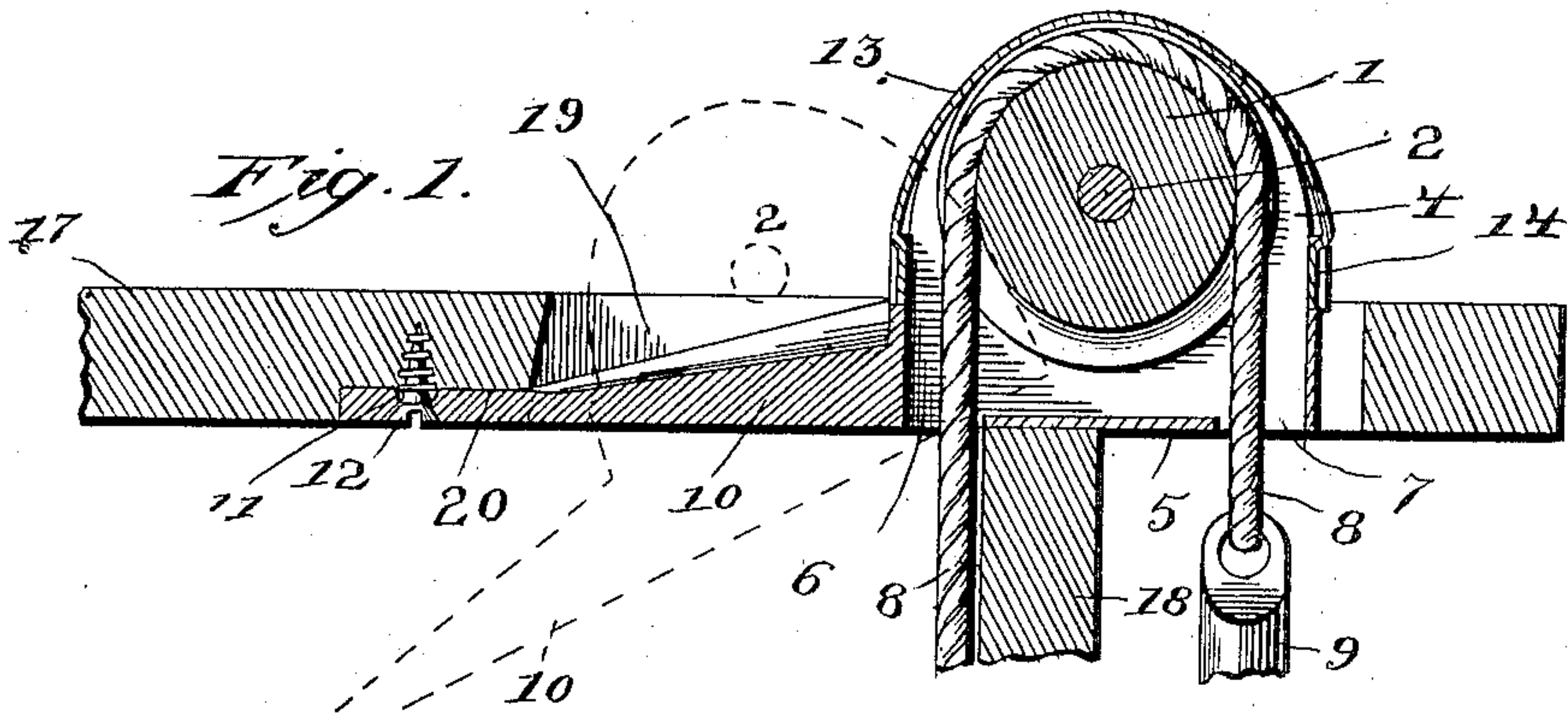
No. 827,618.

PATENTED JULY 31, 1906.

F. S. CLARKSON.

SASH PULLEY.

APPLICATION FILED OCT. 23, 1905.



WITNESSES:

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Fig. 5.

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UNITED STATES PATENT OFFICE.

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SASH-PULLEY.

No. 827,618.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed October 23, 1905. Serial No. 284,056.

To all whom it may concern:

Be it known that I, FRANK S. CLARKSON, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Sash-Pulleys, of which the following is a specification.

My invention relates to what are technically known as "sash-pulleys" or "sash-cord guides" for use with balanced or weighted window-sashes.

For a long time the almost universal custom was to insert sash-pulleys in mortises in the upright sides or "stiles" of the frame; but in later years builders have been using much heavier glass in sashes, which require much heavier weights. To meet this change, much greater room was required if cheap cast-iron weights were used, and to prevent undue enlargement of the weight-box expensive lead weights were sometimes used. To avoid either this objectionable enlargement of the weight-box or the necessity for the expensive lead weights, what are known as "overhead" sash-pulleys were introduced, in which construction the sash-pulleys are mounted above the sash, thereby lengthening the space available in the weight-box and permitting of an increase in the length of the cheap cast-iron weights, whereby the necessary increased weight is supplied without any lateral increase in the dimensions of the weight-box. In some cases the tops of window-frames are incased in brick walls, and in others a wooden casing is provided on the top of the frame, secured thereon by screws.

It is the special object of this invention to provide an improved construction of overhead sash-pulley which may be used with equal facility in either of these styles of frames without any alteration of the pulley and with the greatest economy in time and labor, while providing in each situation a direct support of the pulleys upon the stiles or side pieces of the frames.

A further object is to economize in the construction of the pulley.

With these objects in view the invention consists in the improved construction, arrangement, and combination of parts herein-after fully described and afterward specifically claimed.

In order that others skilled in the art to which my invention appertains may be en-

abled to make and use the same, I will now proceed to describe its construction and operation, in connection with the accompanying drawings, in which—

Figure 1 is a vertical sectional view showing a sash-pulley constructed in accordance with my invention in position in a frame to be incased in a brick wall. Fig. 2 is a similar view, the pulley being in position in a frame having a superimposed wooden casing on the top of the frame, the guard being omitted. Fig. 3 is a perspective view of the pulley, parts being broken away. Fig. 4 is a perspective view of the cover or shield removed from the pulley. Fig. 5 is a transverse sectional view on the plane indicated by the broken line 5 5 of Fig. 2.

Referring specifically to Figs. 1 to 5 of the drawings, 1 indicates a sheave or pulley loosely mounted on a pin or shaft 2, secured in a housing or frame 3, which housing consists of sides 4 4, substantially semicircular in outline, mounted on or secured to a bottom 5, having openings 6 and 7 for the passage of a cord or chain 8, which passes around the sheave and has one end secured to the sash and carrying a weight 9 at the other end.

An extension 10 projects from one side of the frame or housing, having its bottom in the same plane as the bottom of the housing and provided near its outer end with a hole 11 for the passage of a screw 12, said hole being countersunk on the top and bottom of the extension to receive the head of the securing-screw when inserted in either direction.

At 13 is indicated a guard or cover, made preferably of sheet steel, although it might be made of cast-iron. This guard is substantially semicircular in form and is provided at its ends with inwardly-projecting ribs 14 14 to fit into deep notches or open slots 15 15 in ends 16 16 of the housing, the guard being intended to be sprung into position and held due to its own elasticity when made of sheet-steel, although other fastening means may be employed. Inasmuch as the guard is only intended to serve as a guide for the cord or chain while being passed over the sheave, it is not liable to be misplaced, and while this guard is quite useful it is not absolutely essential and may be omitted, if desired.

17 in Fig. 1 and 17^a in Fig. 2 indicate the

tops or lintels of a window-frame, and 18 and 18^a, respectively, the sides or stiles thereof, these parts being of any desired size and material and secured together in any desired manner.

In Fig. 1 the lintel 17 is provided with an open slot 19, extending on both sides of the stile 17, said slot terminating at one end in an undercut recess 20, which is formed to exactly receive the screw-holed end of the extension 10, so that when the housing is in place the whole of the bottom of the housing and the extension will be flush with the under surface of the lintel and the bottom 5 of the housing between the sides 4 4 and under the sheave will rest solid on top of the stile and act as the load-bearing seat. In this embodiment of my invention the pulley is placed in position after the frame is set in the wall by passing it up through the slot 19, as indicated by dotted lines in Fig. 1, and is secured in place by the single screw 12, the weight strain being upon and substantially vertical on the stile, thus bringing no strain on the screw and tending to maintain the whole pulley structure in position. In that embodiment of my invention illustrated in Fig. 2 the pulley rests flat on top of the lintel for the whole length of the main body and the extension 10 and is held against lateral displacement by wooden strips 22 22, secured by screws 23 23 or otherwise and against vertical displacement by a screw 12^a. The lintel is not slotted, but two holes, as at 24 24, are bored for the passage of the cord or chain. The vertical strain in this instance, as in the form of Fig. 1, is substantially vertical on the stile through the bottom or seat 5 and tends to hold the pulley in place. The pulley structure is exactly the same in both embodiments, so that but one form is needed for the window-frames

embedded in brick walls and those having a wooden casing at the top, thus rendering the carrying in stock of different forms unnecessary and avoiding the expense attending upon the manufacture of more than one form.

The omission of the hood usually cast with the sides of the housing permits of the casting of the housing without coring, thus economizing in its manufacture. The bottom of the housing and its extension being in the same plane is flush with the bottom of the lintel in the form of Fig. 1 and rests solidly on the top of the lintel in the form of Fig. 2.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A sash-pulley adapted to be incased in the lintel of a window-frame, or supported wholly on the top thereof, comprising a housing for the pulley and an extension thereof, the bottom of the housing directly below the pivot of the pulley, which forms the load-bearing seat, and the bottom of the extension, being in the same plane and adapted to be flush with the bottom of the lintel when incased therein or to rest flat on the top thereof, the pulley being entirely within the housing substantially as described.

2. A sash-pulley comprising a housing having sides, bottom and slotted or notched ends, and a removable guard having ribs to fit the said notched or slotted ends.

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

FRANK S. CLARKSON.

Witnesses:

S. BRASHEARS,
GEO. H. LUSCOMBE.