

No. 709,000.

Patented Sept. 16, 1902.

P. DOSCH.  
SASH CORD PULLEY.

(Application filed May 14, 1902.)

(No Model.)

Fig. 1.

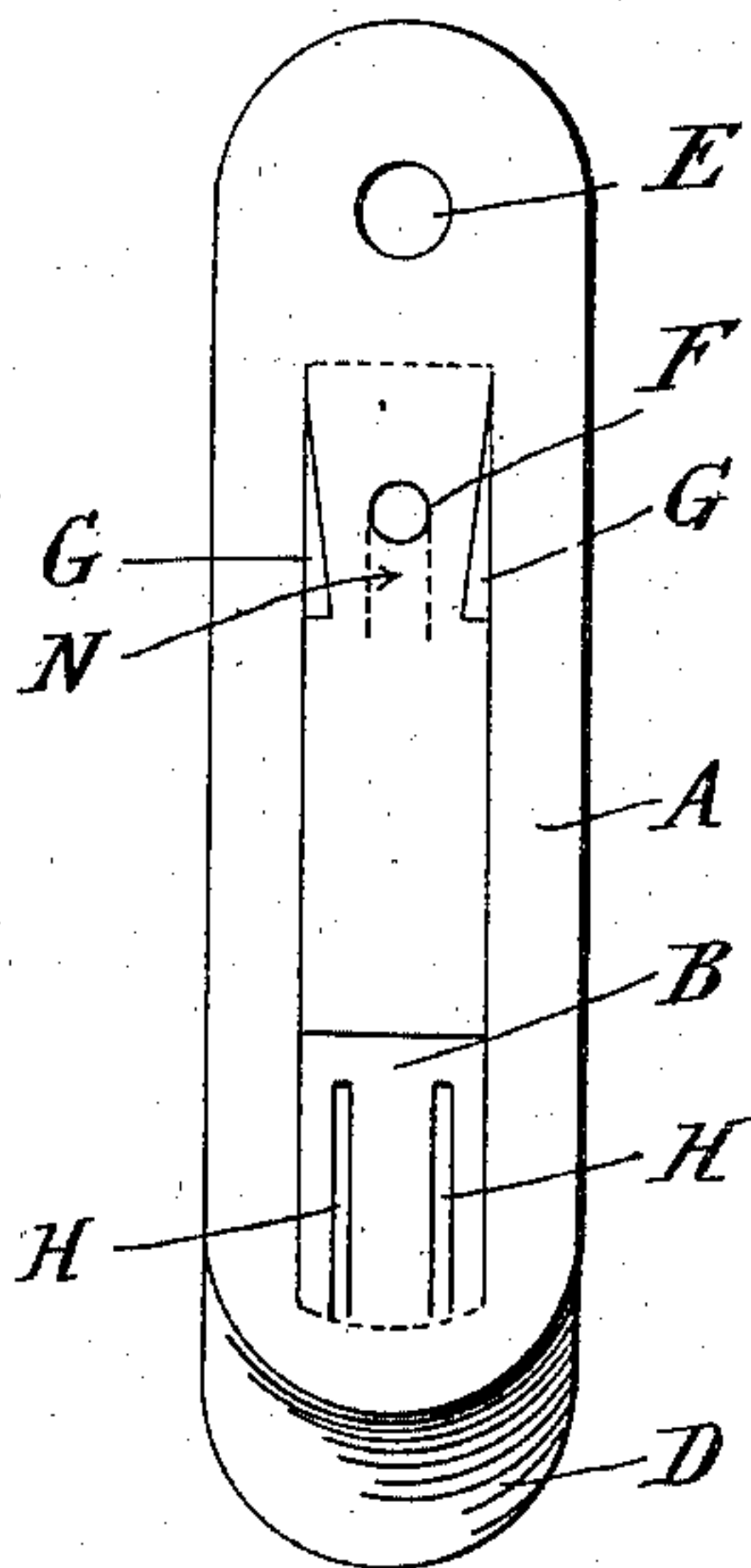


Fig. 2.

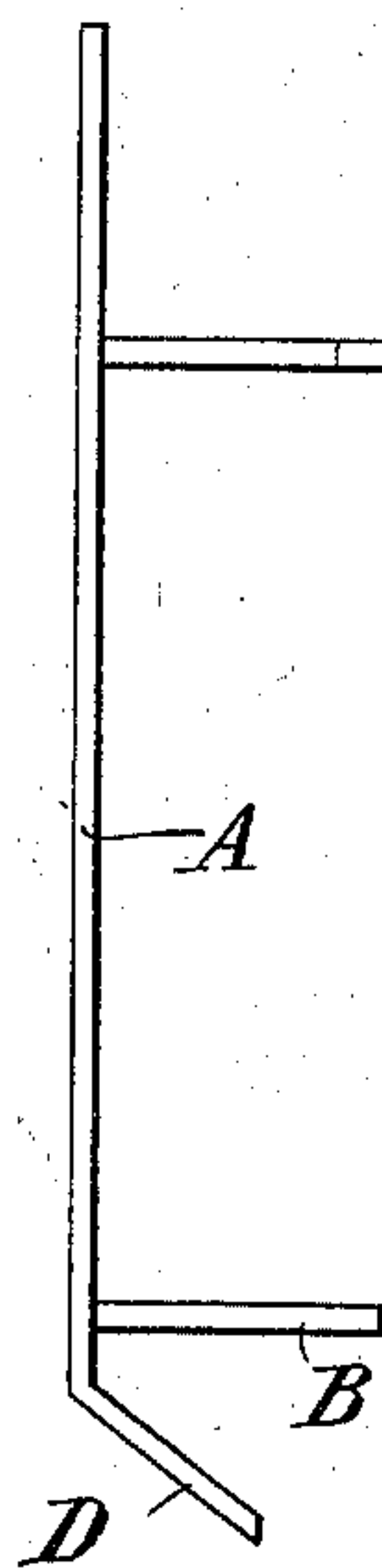


Fig. 3.

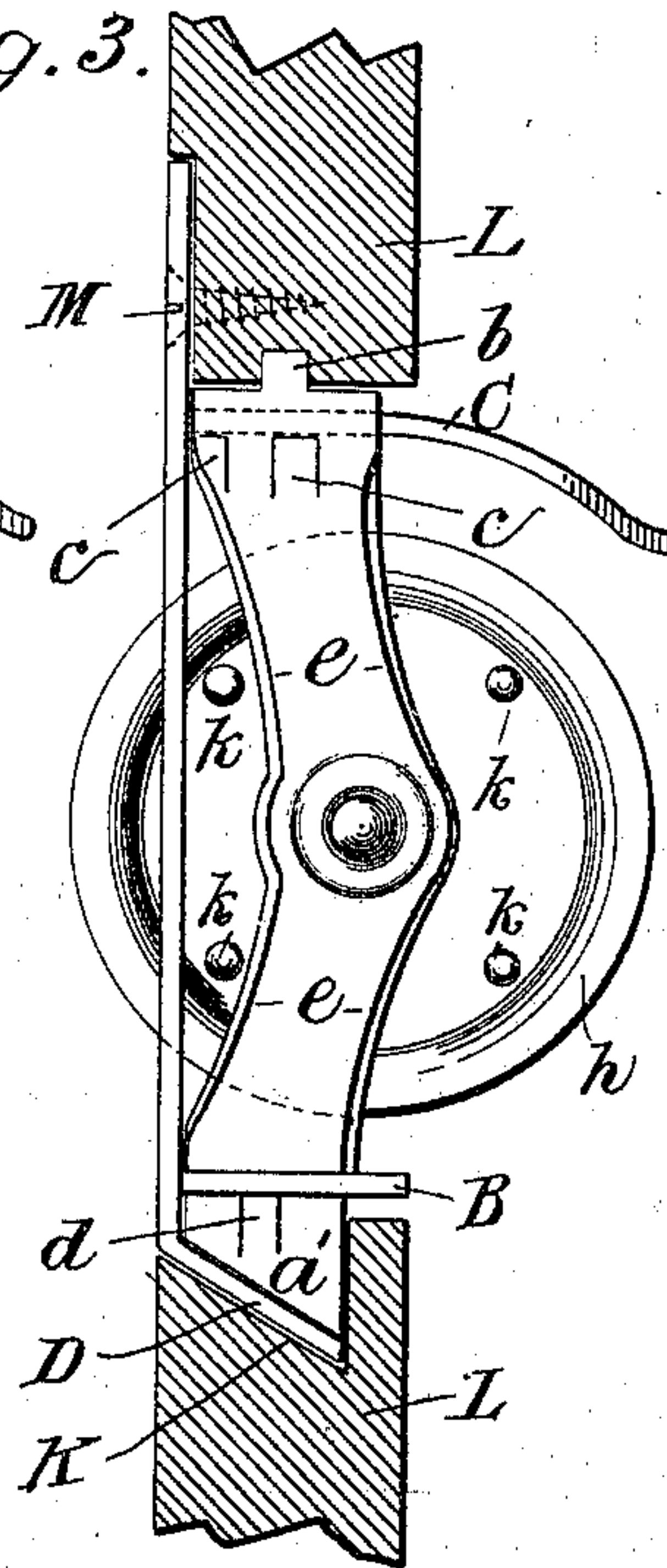


Fig. 4.

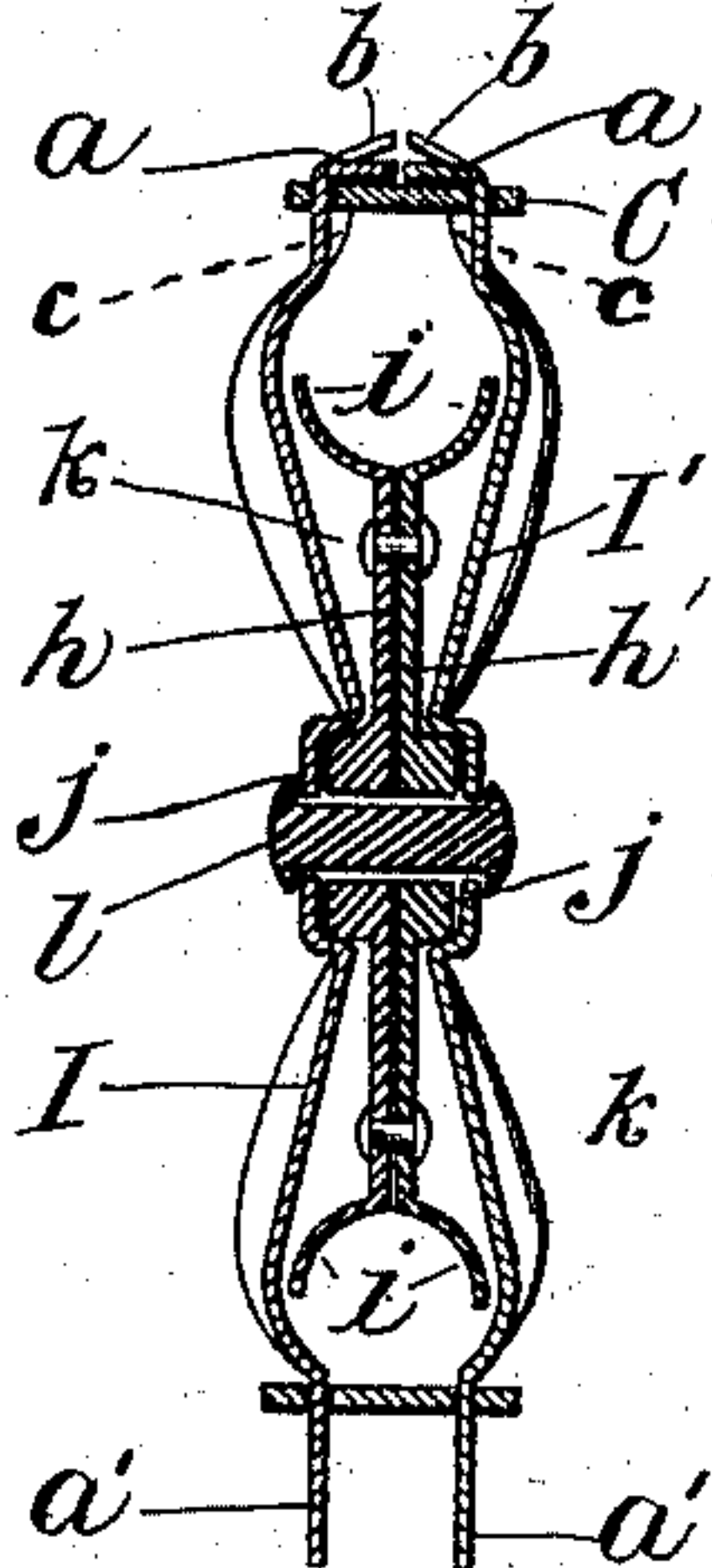


Fig. 5.

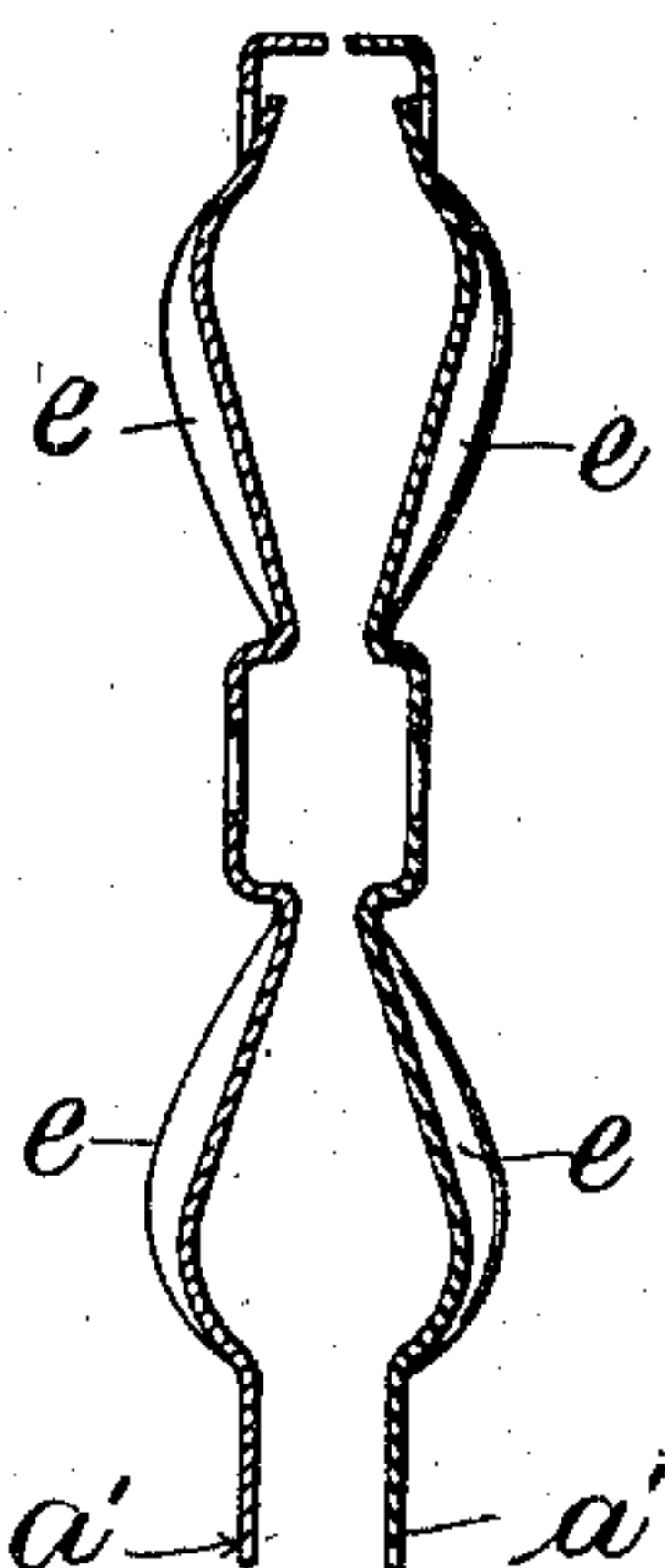
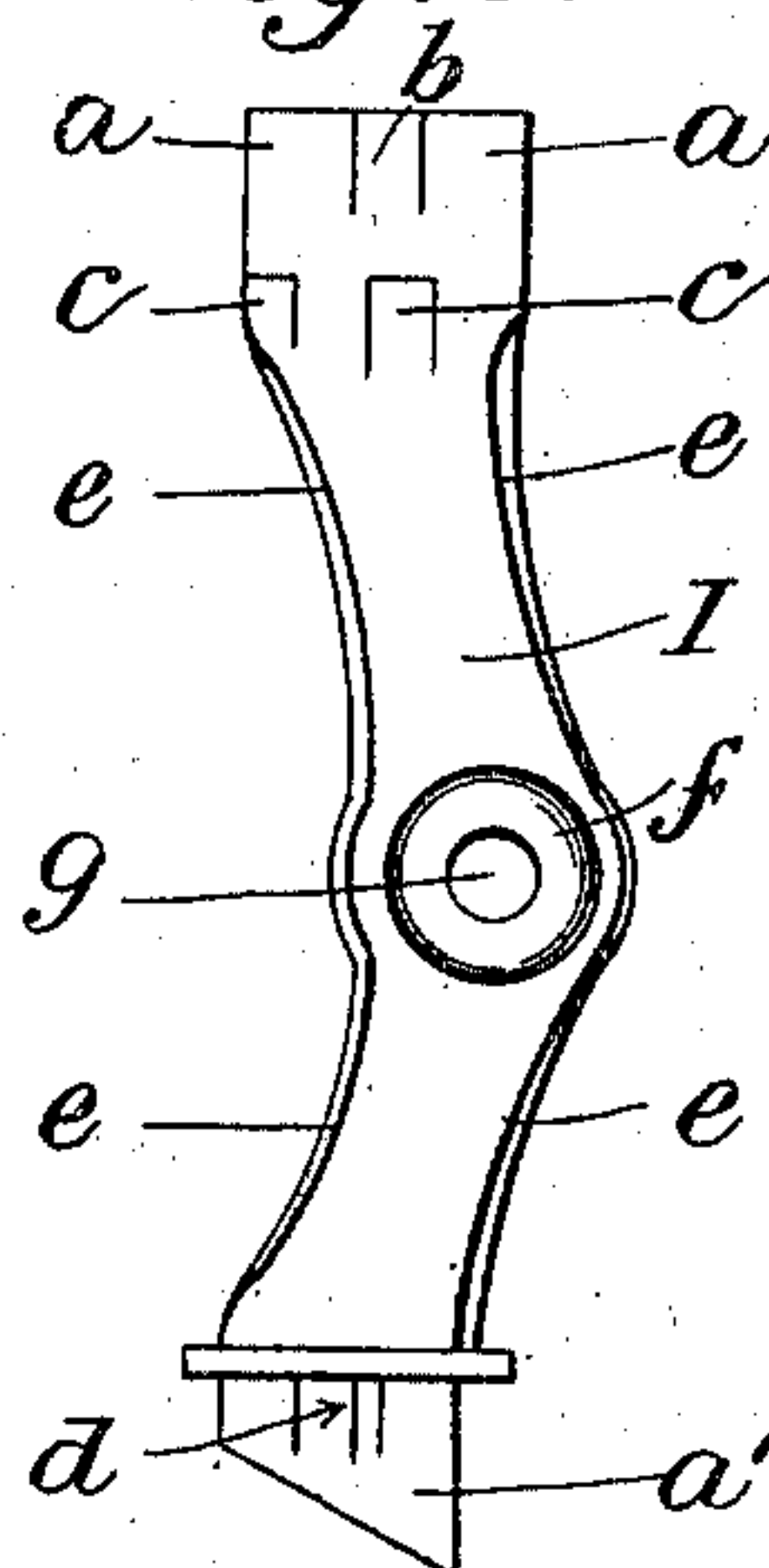


Fig. 6.



Witnesses  
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Peter Dosch - Inventor  
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# UNITED STATES PATENT OFFICE.

PETER DOSCH, OF YONKERS, NEW YORK.

## SASH-CORD PULLEY.

SPECIFICATION forming part of Letters Patent No. 709,000, dated September 16, 1902.

Application filed May 14, 1902. Serial No. 107,248. (No model.)

*To all whom it may concern:*

Be it known that I, PETER DOSCH, a citizen of the United States, and a resident of Yonkers, in the county of Westchester and State of New York, have invented a certain new and useful Improvement in Sash-Cord Pulleys, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 illustrates a front view of the face-plate. Fig. 2 illustrates an edgewise or side view of the face-plate. Fig. 3 illustrates a sash-pulley complete embodying my invention, all the parts being assembled. Fig. 4 illustrates a rear edgewise view, partly in section, of the wheel and its casing and certain of the coacting parts. Fig. 5 illustrates a view similar to Fig. 4, showing a casing or support for the wheel only. Fig. 6 illustrates a side view of one-half of the wheel-casing before the terminal parts have been bent.

A is the face-plate. In the first instance it is a flat piece of sheet-steel. The first operation is to cut from its central part two tongues B C, to bend downwardly the lower end D, then punch a hole E and another F and cut out from the tongue C certain recesses in its edges G G and from the tongue B certain slots H. These tongues B and C are then bent inwardly, as shown in Fig. 2, at right angles to the plane of the face-plate A.

The wheel-supporting frame (see Fig. 6) is made in two parts I I'. They are punched out of sheet-steel or equivalent metal in the form shown—that is to say, in a curved or flattened V-shaped outline. The upper end is slit into three parts *a a* and a central part *b*, and below these there are other parts *c c* cut out, and at the lower end there is a single tongue *d*. In order to stiffen these side frames, I so shape the dies as to throw up ribs or partial flanges on their edges *e e*, and in the center of these side frames I strike up a hub *f* and simultaneously punch a hole *g*. The wheel I make in two identical parts, (see Figs. 3 and 4,) likewise of sheet metal, *h h'*, with the groove *i*, to receive the cord of the sash, half in each part of the wheel and the hub *j* having a hole through it. The two parts of the wheel are rigidly secured together by rivets *h h'*.

The method of assembling the parts may be

as follows: The wheel is first placed between the two side pieces I I' of the frame, the hub of the wheel resting within the hub of the frame. A rivet *l* is then passed through the hole in the side frames and in the wheel and headed. The lower ends *a' a'* of the side frames are then passed through the slots H H in the tongue B of the face-plate, the upper ends of the frame beingsprung slightly apart, so that they can be pressed up close to the face-plate and enter the recesses G G in the edges of the tongue C. I purposely make this recess tapering from the face-plate outwardly, so that the upper ends of the side frames will be slightly sprung or twisted, whereby their edges which are adjacent to the face-plate are turned outwardly or bell-shaped to a slight degree, thus avoiding abrading the cord. The recesses G may, however, be square or any other preferred form. When the parts are in this position, the little tongues *c c* at the upper end of the side frames and the tongue *d* at the lower end are forced outwardly by suitable apparatus, so as to lock the side frames to the tongues C and B, as shown. Thereupon the slit parts *a a* (see Figs. 4 and 6) are bent over upon the upper surface of the tongue C, thus securely holding the wheel-supporting frame to the face-plate and making a rigid strong permanent structure. The rivet *l* is not the axis upon which the wheel revolves. On the contrary, the hole in the sides of the wheel through which the rivet passes is somewhat larger than the rivet, and the wheel revolves on the outer surface of its hub, which engages with the inner surface of the hub in the side frames. This is a material improvement. The area of the surface is such that it gives much greater stability to the wheel, secures good smooth movement, and greatly increases the life of the pulley. The lower end D of the face-plate is pressed inwardly at the angle shown in order that it may enter an undercut or dove-tailed recess K, made in the window-framing, thus doing away with the necessity of any confining means, such as a screw, at the lower end of the pulley. The upper end of the pulley may be confined by a screw M, passing through the hole E, (see Fig. 3,) or the central tongue *b* at the upper end of the side frames may be forced upwardly into the wood of the window-frame, as shown in Figs. 3 and



4, and in order that this may be effected I make the hole F in the face-plate. (See Fig. 1.) Through this hole a nail set may be introduced, and then a single blow from a hammer will force the two tongues *b b* of the side frames, which had previously been bent over upon the surface of the tongue C, upwardly and into the wood of the frame. Another way of accomplishing this object is as follows:

10 The tongue C may have slits, as shown at N, and this tongue be forced upwardly and caused to enter the wood of the window-frame L, the upper part of the side frames in the section occupied by the little tongue *b* being cut away to permit this tongue to pass upwardly and enter the wood.

It will be observed that my sash-pulley differs from any of the sheet-metal pulleys heretofore made in several important particulars, which will be pointed out in the claims hereof, whereby I secure greater strength and more handsome appearance and greater ease in application. My pulleys are likewise inexpensive to construct.

25 It will be obvious to those who are familiar with this art that modification may be made in the details of construction of my invention without departing from the essentials thereof. I therefore do not limit myself to such details.

Having described my invention, I claim—

1. The combination in a sash-pulley of a face-plate having an upper and lower tongue cut from the face-plate itself, provided with means for supporting the wheel-frame and a hole made in one of the tongues for the insertion of a tool whereby a portion of the structure may be forced into the wood of the window-frame.

40 2. The combination in a sash-pulley of a face-plate having a tongue cut therefrom and arranged at substantially right angles thereto, a portion of the tongue being slit so as to afford a part adapted to be forced into the wood of the frame for the confinement of the pulley.

50 3. The combination in a sash-pulley of a face-plate having a tongue cut therefrom and arranged at substantially right angles thereto, an inclined recess at or near the junction between the tongue and the face-plate where-

by the sides of the wheel-supporting frame will be thrown outwardly or bell-mouthed, for the purpose set forth.

4. The face-plate of a pulley having one end bent downwardly at an angle adapted to enter a similarly-shaped recess in the wood of the frame and a part of the metal constituting the face-plate adapted to be forced into the wood of the frame after the pulley is set.

5. In a sash-pulley the combination of a wheel-supporting frame embodying side bars, each made of angular form, whereby their ends are adapted to engage with and be supported by devices attached to the face-plate and located adjacent to the face-plate, said side bars having a projecting central part adapted to properly support the pulley-wheel.

6. In a sash-pulley the combination of a wheel-supporting frame embodying two side bars, the edges whereof are reinforced by flanges or ribs and the ends whereof are adapted to engage with tongues cut from the face-plate and arranged at substantially right angles thereto and said tongues themselves.

7. In a sash-pulley the combination of a wheel-supporting frame embodying side bars having a hub-shaped recess formed at or near their central portion adapted to receive a similarly-shaped hub formed on the wheel, and flanges or ribs formed on the edges of the said side frames whereby they are stiffened.

8. In a sash-pulley the combination of a wheel made in two parts fastened together and having a hub at its central portion and a wheel-supporting frame embodying two lateral bars having a hub-shaped recess formed at or near their central part and integral therewith adapted to receive the hub of the wheel and a rivet connecting the two side bars together through an opening in the hub of the wheel.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 28th day of April, 1902.

PETER DOSCH.

Witnesses:

PHILLIPS ABBOTT,  
F. M. DONSBACH.