

No. 640,402.

Patented Jan. 2, 1900.

G. R. McCHESNEY.

FRICTION PIVOT FOR REVOLVING SASHES.

(Application filed May 3, 1899.)

(No Model.)

Fig. 1.

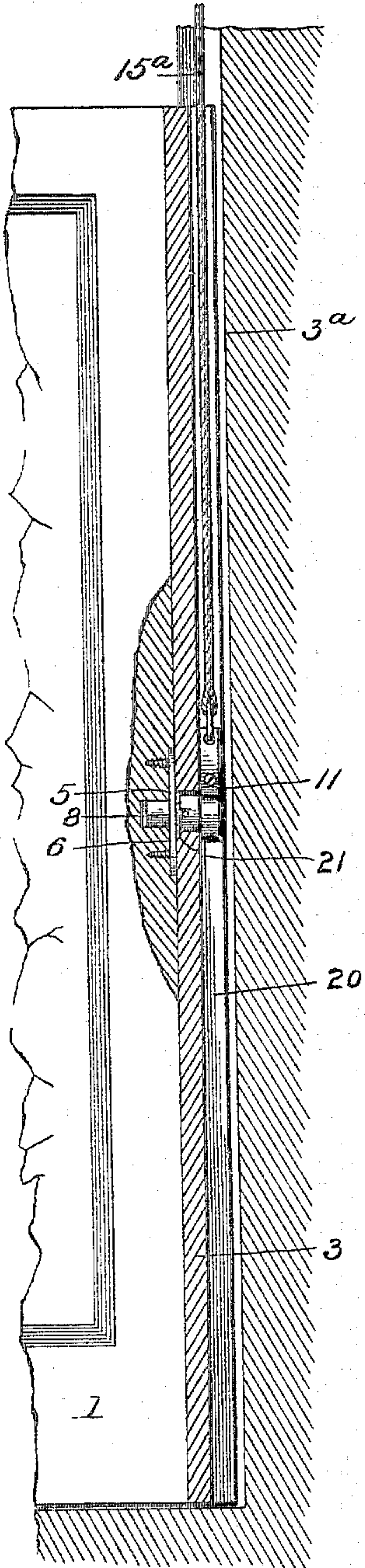


Fig. 2.

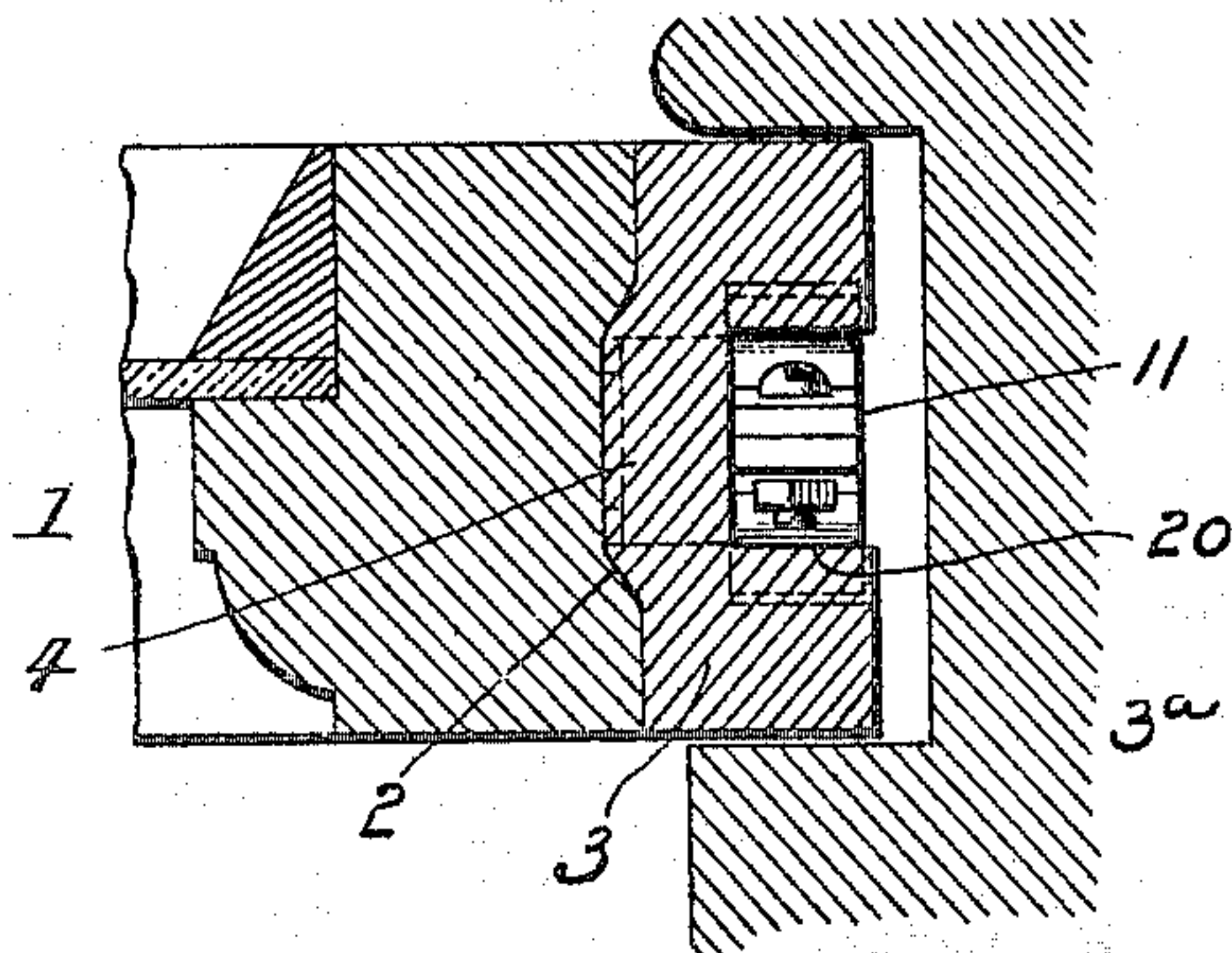


Fig. 3.

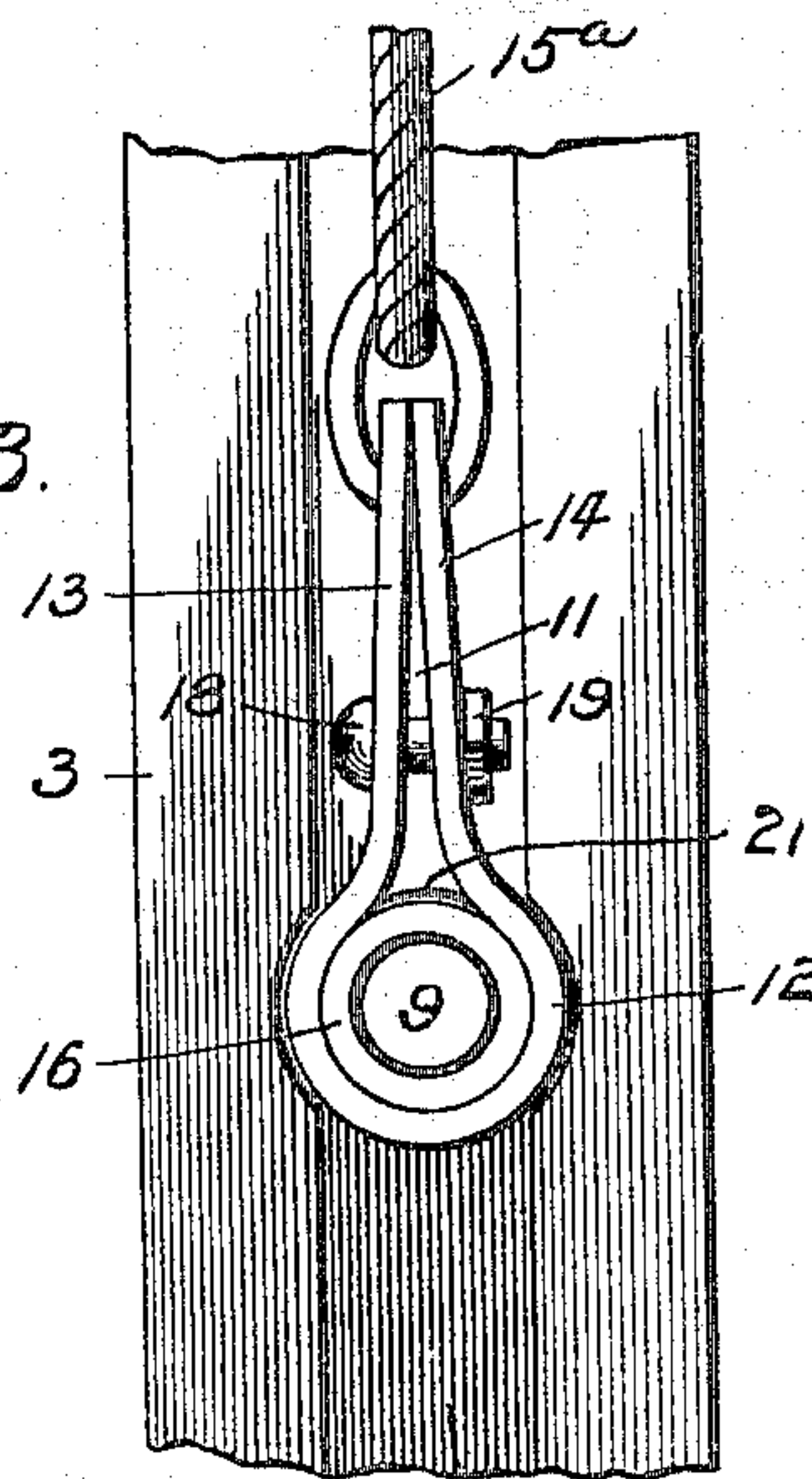
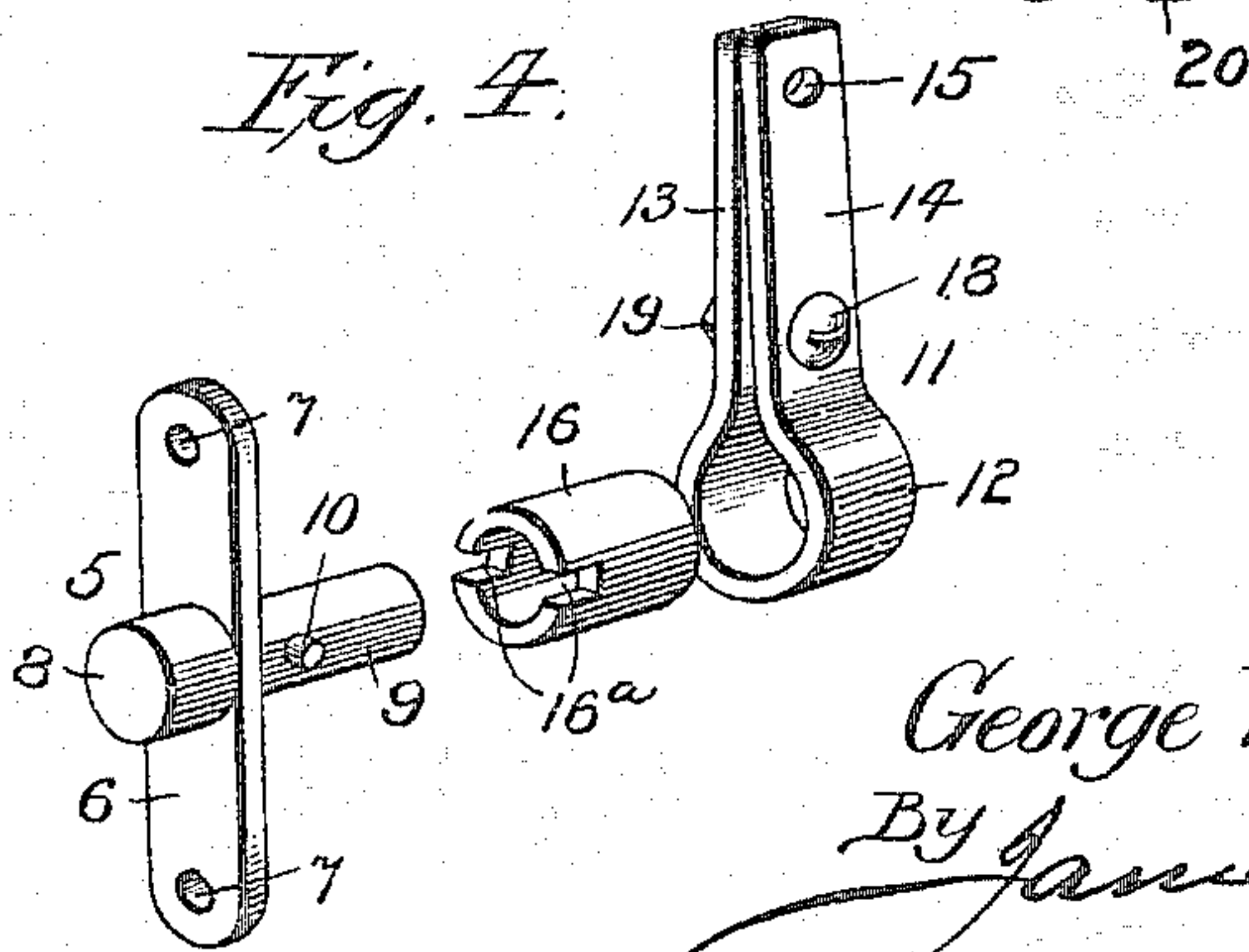


Fig. 4.



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UNITED STATES PATENT OFFICE.

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FRICITION-PIVOT FOR REVOLVING SASHES.

SPECIFICATION forming part of Letters Patent No. 640,402, dated January 2, 1900.

Application filed May 3, 1899. Serial No. 715,460. (No model.)

To all whom it may concern:

Be it known that I, GEORGE R. MCCHESENEY, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented new and useful Improvements in Friction-Pivots for Revolving Sashes, of which the following is a specification.

My invention relates to an improved friction-pivot for revolving sashes.

It is an object of my invention to provide an improved pivot construction which will permit the window-sash to be turned to any position and will securely hold the sash in such adjusted position.

It is a further object of the invention to provide a friction-pivot possessing the advantages named and adapted to be applied to a combined sliding and revolving window-sash of the kind hereinafter described.

It is a still further object of the invention to provide a friction-pivot which may be applied to a combined sliding and revolving sash and is adapted to have the sash-cord attached thereto, whereby the sash is supported from said cord through the medium of the pivot.

Other objects of the invention relate to details of construction and operation of parts, all of which will more clearly hereinafter appear.

I have illustrated my invention in the accompanying drawings, in which—

Figure 1 is a section through a portion of one side of a sash and sash-frame, showing my invention applied thereto. Fig. 2 is a transverse sectional view through the same. Fig. 3 is an edge view, and Fig. 4 shows perspective views of the parts of the device separated.

The reference-numeral 1 indicates the sash, each edge of which is provided with a central longitudinal shallow groove or recess 2. As each side of the sash and frame is provided with my invention and as said sides are identical, the following description will be understood as applying to both sides.

The numeral 3 indicates what I term a "sash-strip," which is of the same width as the sash and is applied to the edge thereof, having a longitudinal tongue 4, which engages in the groove 2. The sash 1 and strip

3 move together when the parts are assembled and placed in the frame 3^a, as will presently appear. Secured in the edge of the sash centrally of its length is one member 5 of the device, which part I will term the "pivot member." Said member comprises a plate 6, apertured near opposite ends, as shown at 7, from one side of which plate extends a central stud 8. From the opposite side of the plate and centrally thereof extends a pivot-pin 9, which is circular in cross-section. Located respectively on diametrically opposite sides of the pivot-pin 9 are lugs 10, the purpose of which will be presently explained. The stud 8 and pivot-pin 9 are preferably made or cast integral with the plate 6. The pivot member is designed to be secured to the edge of the sash, and to this end the sash is centrally recessed in its grooved portion, so that the plate 6, with the stud 8, may be seated in said recessed portion and the outer side of plate 6 lie flush with the surface of the sash, as indicated in Fig. 1. The numeral 11 indicates the other member of the friction-pivot, which I term the "hanger." Said hanger is made of a single piece of spring metal bent upon itself to form a cylindrical portion 12, constituting a housing or journal bearing, and to provide two integral arms 13 14, apertured at their outer ends, as shown at 15, to receive the sash-cord 15^a. Within the housing 12 I place a cylindrical metal sleeve 16, which is of a size to loosely receive said pivot-pin when the same is inserted in the sleeve. Said sleeve projects beyond the inner edge of the housing 12, as shown in Fig. 1, and the edge of said projecting portion is provided on diametrically opposite sides with slots 16^a, which are designed to receive the lugs 10 on the pivot-pin 9, so that the sleeve may be caused to turn with the pivot-pin in the operation of the device. The housing 12 is made to embrace the sleeve 16 more or less firmly, but not to the extent that it will prevent the sleeve from turning in said housing. The tension or pressure of the housing 12 upon the sleeve 16 is regulated by a screw-bolt 18 passed through the arms 13 14 and having an adjusting-nut 19 screwed on its end.

The sash-strip 3 is provided on its outer side with a deep longitudinal groove 20, extending throughout its length, and is provided

with a central aperture 21, which is designed to loosely receive the portion of sleeve 16 projecting beyond the housing 12.

In assembling the parts the pivot member 5 is first secured in place in the sash by means of screws inserted through the apertures 7, the stud 8 serving to center the device and to take a portion of the strain from the screws, as will be understood. The sash-strip 3 is then applied to the edge of the sash, the shoulder or tongue 4 resting in the groove 2 and the pivot-pin 9 projecting through the opening 21. The hanger 11 is now placed in position, the projecting portion of sleeve 16 being inserted in the opening 21 of the strip, the sleeve 16 passing over the pivot-pin 9, and the slots 16^a receiving the lugs 10. In this position the arms 13 and 14 extend upward in the groove 20, as more clearly shown in Figs. 2 and 3, and the sash having the parts applied thereto, as described, being inserted in the frame 3^a, the end of the sash-cord 15^a is then secured in the apertures 15 in the ends of said arms. The sash as a whole may now be secured in the frame by means of the ordinary window-strips, which strips, however, do not engage the sash proper, but the sash-strip 3 only. The window-sash as a whole may now be moved up and down in the ordinary manner, the strips 3 sliding in the guides of the window-frame. Upon revolving the window the engagement of the lugs 10 of the pivot-pin in the slots 16^a of the sleeve will cause said sleeve to turn in the housing 12 against the resistance of the pressure of its walls and the pressure exerted will be sufficient to hold the sash to any position to which it may be turned. By means of the bolt 18 and nut 19 this pressure may be increased or diminished, as circumstances may require. In revolving the window the tongue or shoulder 4 is of course forced out of engagement with the groove 2, as the sash-strip 3 does not revolve. This movement causes the strip 3 to yield laterally, and as the hanger 11 moves with it the sleeve 16 is free to slide or move laterally over the pivot-pin 9, the length of the slots 16^a being sufficient to permit such lateral movement without said slots passing out of engagement with the lugs 10.

The particular construction of the sash, sash-strip, and frame forms no part of this invention, and as my device is intended to be applied to the form of window shown in Patent No. 514,773, granted to P. S. Riddelle February 13, 1894, reference is to be had to such patent for such additional information.

Having thus fully described my invention, what I claim as new is—

1. A friction-pivot for revolving sashes, comprising a pivot member having a pivot-pin, a sleeve mounted on said pin to turn therewith, and a hanger having a housing frictionally engaging said sleeve, substantially as described. 60

2. A friction-pivot for revolving sashes, comprising a pivot member having a pivot-pin, a sleeve mounted on said pin to turn therewith, a hanger having a housing frictionally engaging said sleeve, and means for varying the pressure of said housing upon said sleeve, substantially as described. 65 70

3. A friction-pivot for revolving sashes, comprising a pivot member having a pivot-pin, a sleeve mounted on said pin to turn therewith, a hanger comprising a metal plate bent upon itself to provide a housing for embracing said sleeve and to provide two integral arms and a bolt passed through said arms and having a nut whereby said housing may be caused to embrace the sleeve more or less firmly, substantially as described. 75 80

4. A friction-pivot for revolving sashes, comprising a pivot member having a pivot-pin, lugs on said pivot-pin, a sleeve loosely mounted on said pivot-pin and having slots to receive said lugs, and a hanger having a housing receiving and frictionally engaging said sleeve, substantially as described. 85

5. In combination with a sash, a plate secured in each side edge thereof having a pivot-pin, a sash-strip applied to each edge of the sash and having an opening, a hanger secured to the sash-cord and having a housing, and a sleeve embraced and frictionally engaged by said housing, said sleeve projecting through said opening and being non-rotatively mounted on said pivot-pin, substantially as described. 90 95

6. In combination with a sash, a plate secured in each side edge thereof having a pivot-pin, a sash-strip applied to each edge of the sash and having an opening, a hanger secured to the sash-cord and having a housing, a sleeve embraced and frictionally engaged by said housing, said sleeve projecting through said opening and being non-rotatively mounted on said pivot-pin, and means for varying the pressure of said housing upon said sleeve, substantially as described. 100 105 110

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE R. MCCIESNEY.

Witnesses:

GEO. W. REA,
BRUCE S. ELLIOTT.