

No. 876,197.

PATENTED JAN. 7, 1908.

E. L. KNAB.

HANGER.

APPLICATION FILED JUNE 10, 1907.

2 SHEETS—SHEET 1.

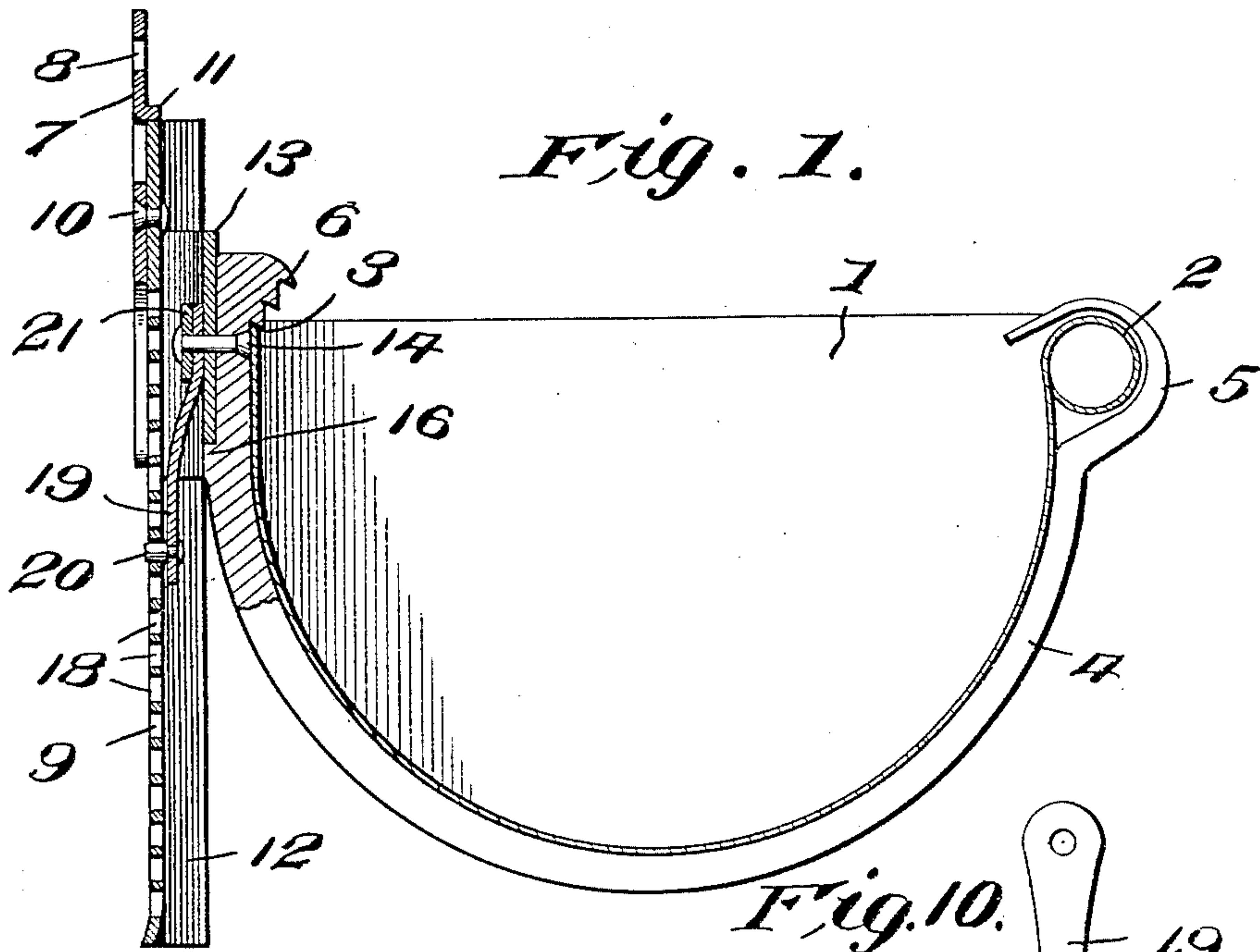


Fig. 10.

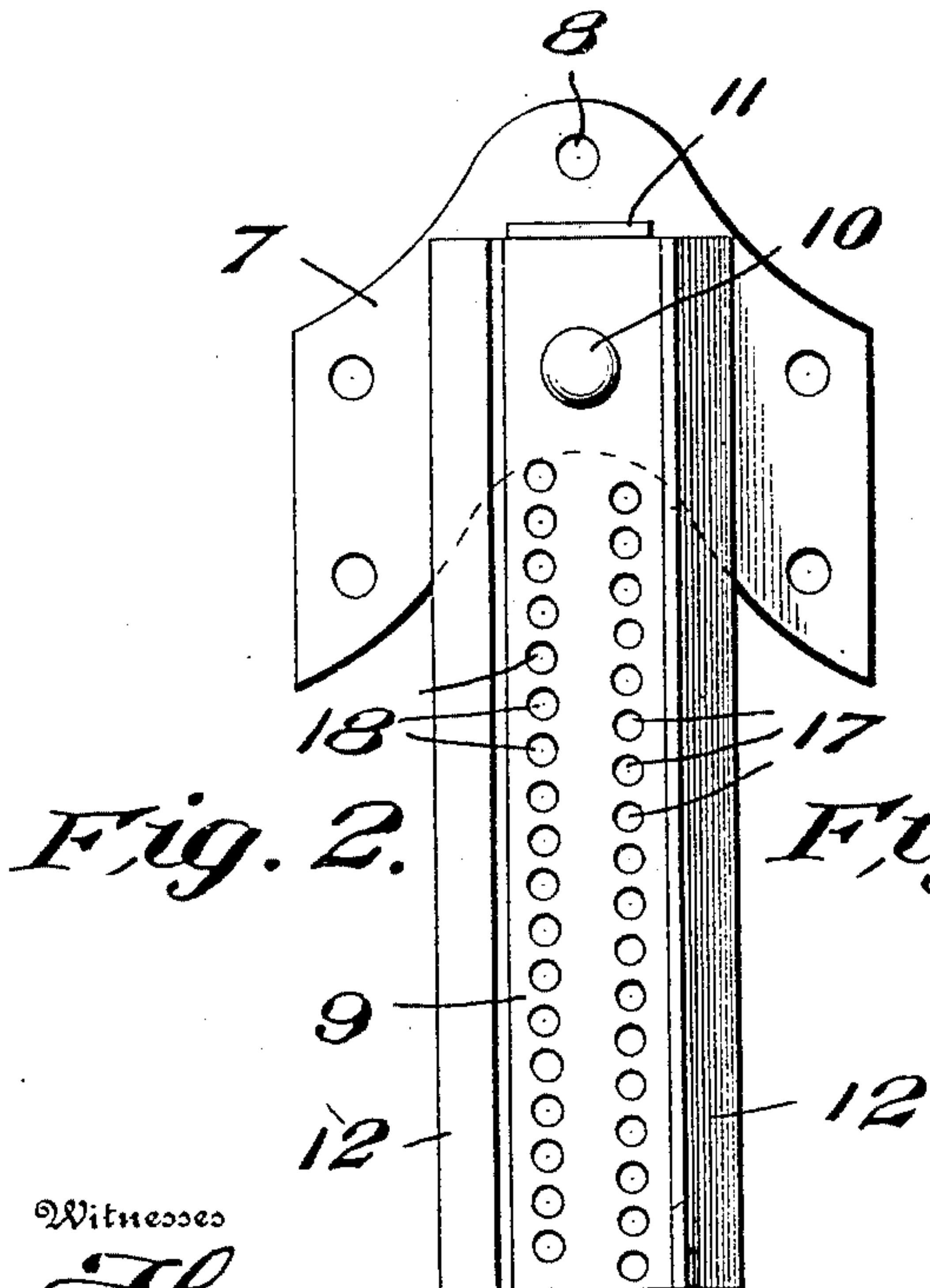
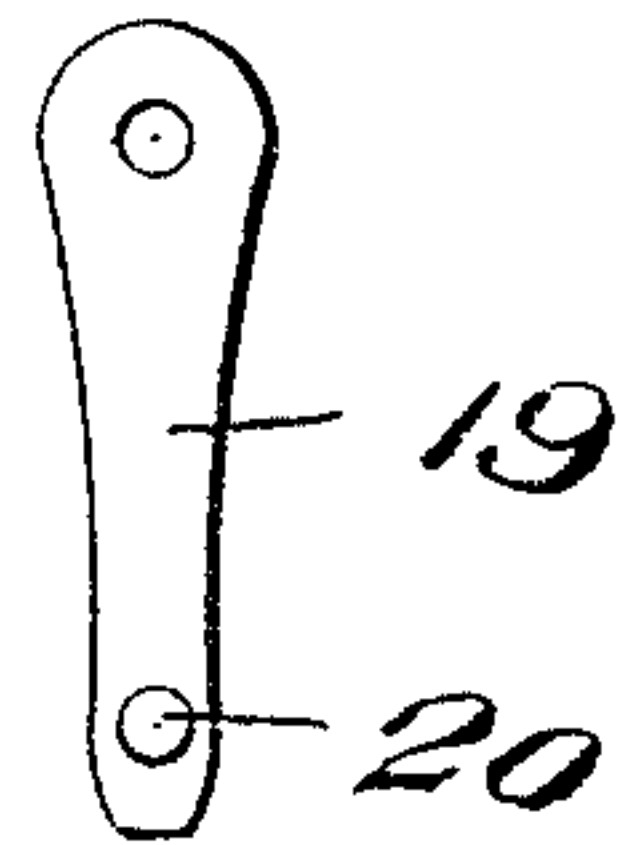


Fig. 2.

Fig. 3.

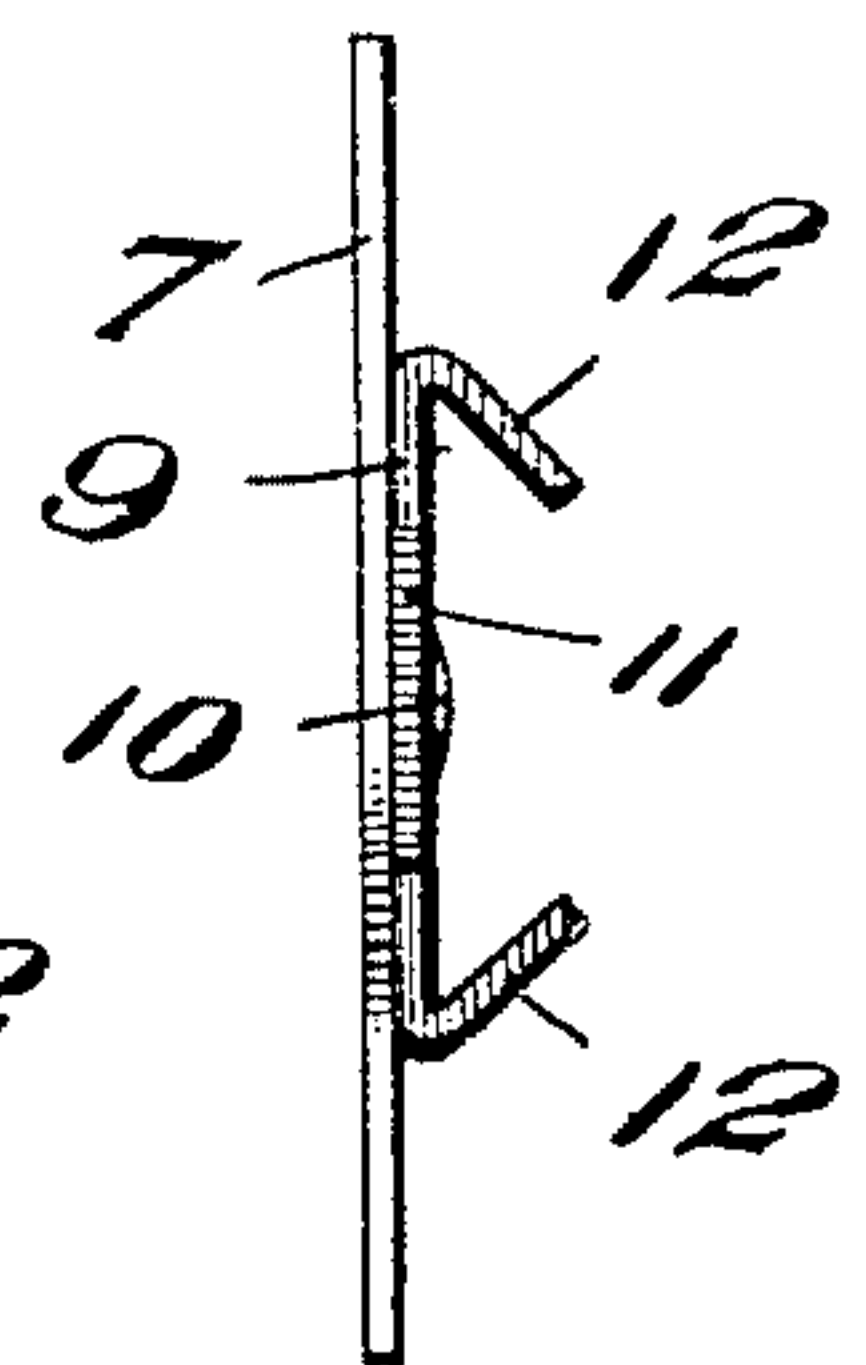
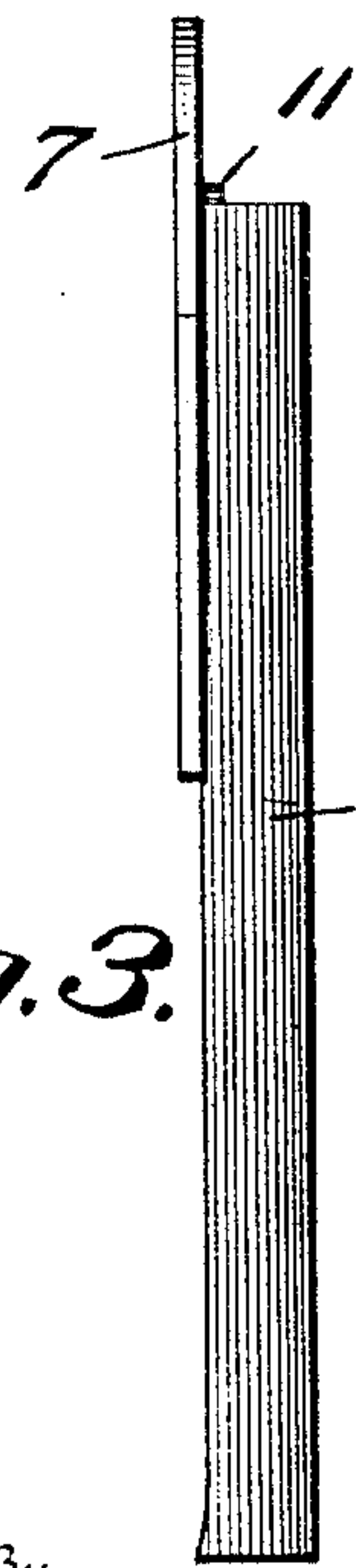


Fig. 4.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 6.

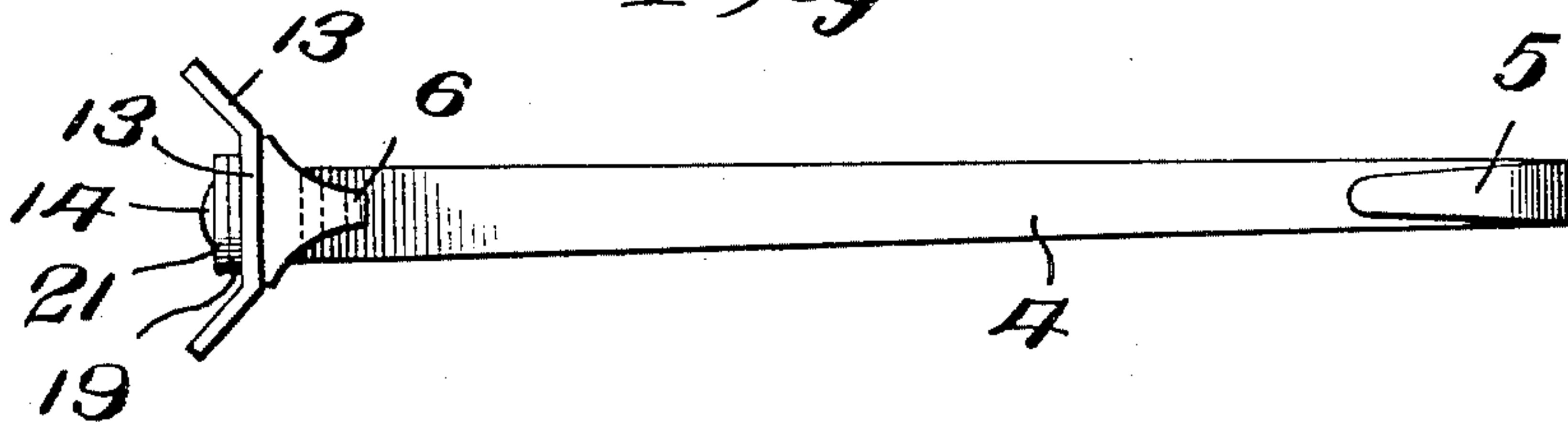


Fig. 5.

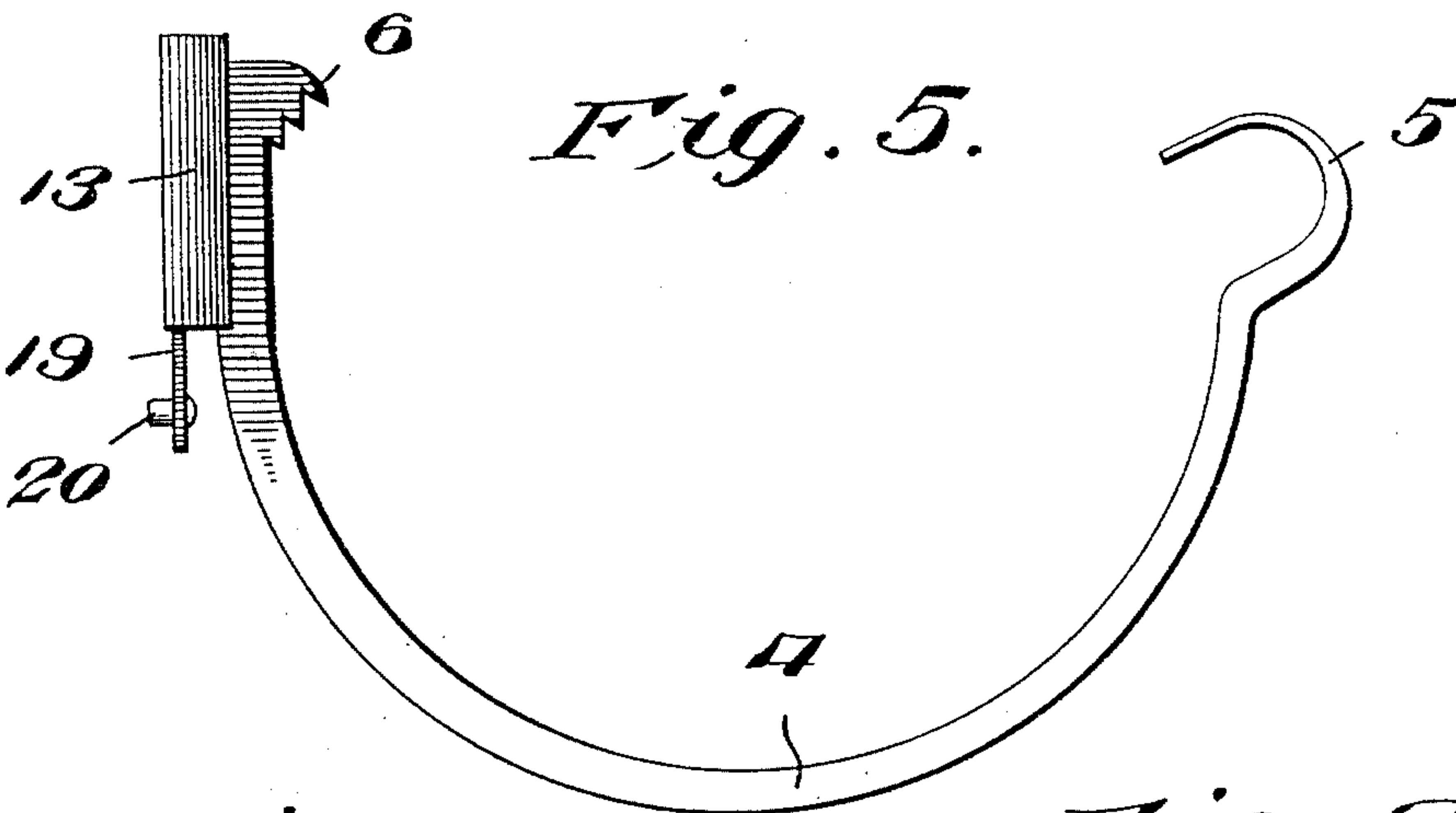
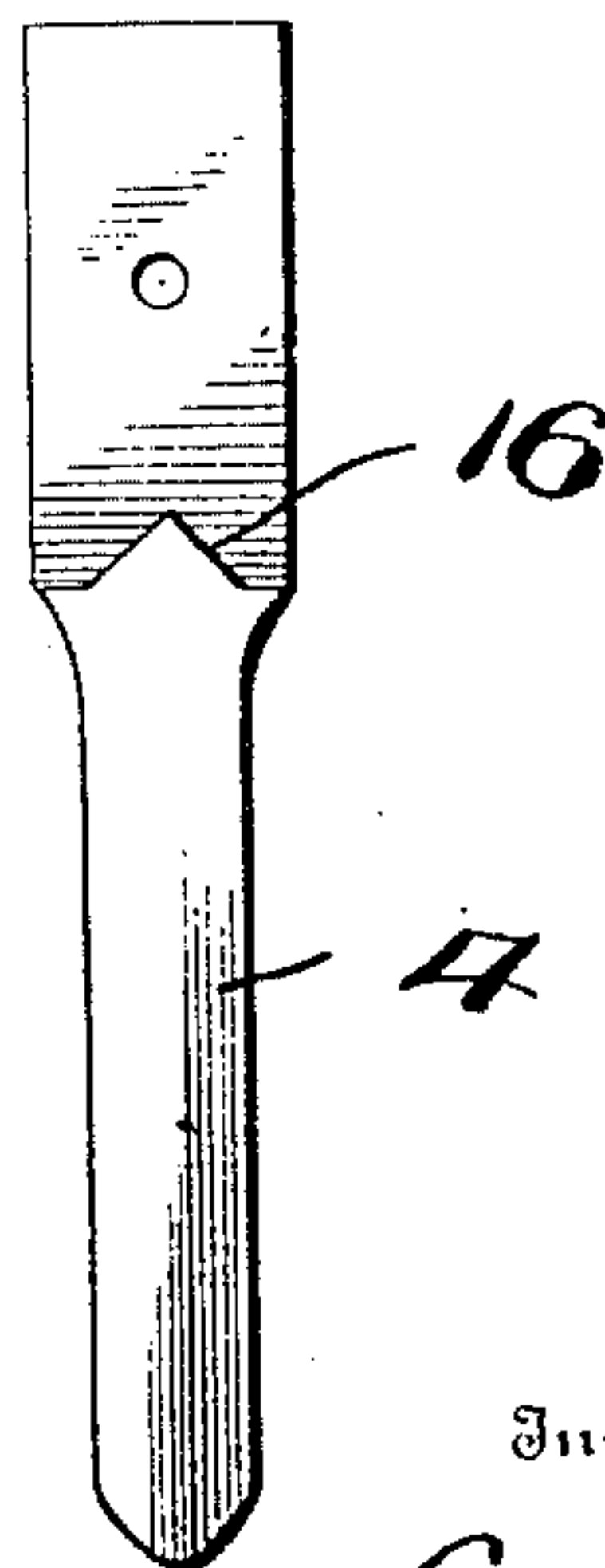
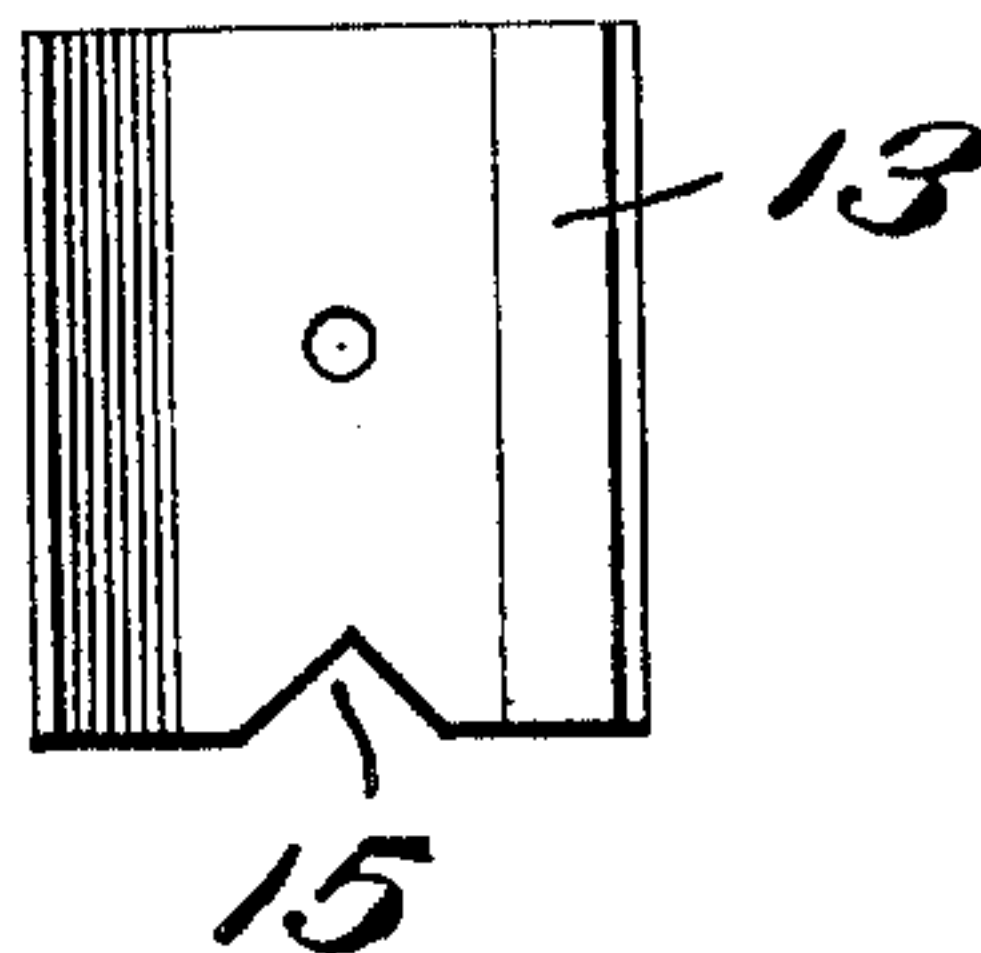
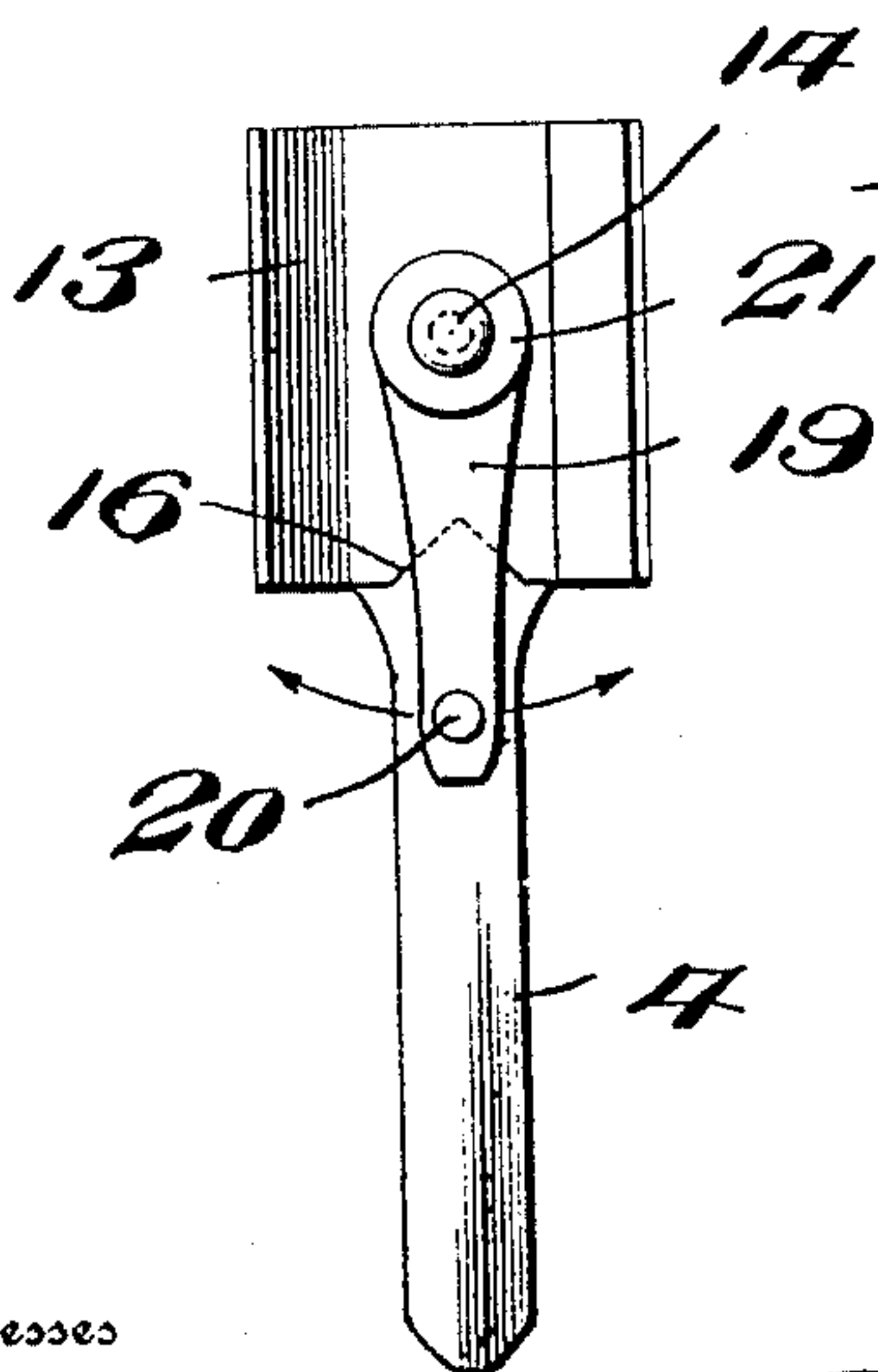


Fig. 7.

Fig. 8.



Witnesses

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UNITED STATES PATENT OFFICE.

ELMER L. KNAB, OF ROCHESTER, NEW YORK.

HANGER.

No. 876,197.

Specification of Letters Patent.

Patented Jan. 7, 1908.

Application filed June 10, 1907. Serial No. 378,259.

To all whom it may concern:

Be it known that I, ELMER L. KNAB, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Hangers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in hangers, and more particularly to that class adapted to be used for hanging gutters, or the like, upon buildings, and my object is to provide means for adjusting the hangers so that the proper fall will be given the gutter to provide for drainage.

A further object is to provide means for securing the gutter to the hanger, and a still further object is to provide means for securing the hanger to a building.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings which are made a part of this application, Figure 1 is a sectional view through a gutter and a portion of my improved hanger. Fig. 2 is a front elevation of a portion of the hanger, showing the manner of securing the same to the structure. Fig. 3 is an edge elevation thereof. Fig. 4 is a top plan view thereof. Fig. 5 is a side elevation of the hanger removed from its supporting frame. Fig. 6 is a top plan view thereof. Fig. 7 is a rear elevation of a hanger proper, showing the lever employed in holding the hanger in its adjusted position. Fig. 8 is an edge elevation of the hanger arm. Fig. 9 is a plan view of a slide block employed to slidably secure the hanger arm to the supporting frame, and, Fig. 10 is a plan view of the adjusting lever.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates a gutter, which may be of the usual, or any preferred, form, and such as is employed in connection with buildings to catch water descending from the roof of the building, the outer edge of said gutter being provided with the usual form of roll 2, while the opposite edge 3 thereof is left plain.

In securing the gutter to the building, I employ a plurality of substantially semi-circular hangers, or brackets, 4, the outer edge

of which is provided with a hook terminal 5, in which is seated the roll 2, while the opposite, or inner edge of the hanger is provided with a plurality of ledges 6, with which the opposite edge of the gutter is adapted to engage, and in placing the gutter on the hangers, the edge containing the roll is first engaged by the hook terminal 5, after which the opposite edge is forced into engagement with the ledges 6, the ledges 6 being slightly inclined downwardly, so as to securely hold the edge 3 of the gutter in engagement therewith.

In securing the hangers to the building, I preferably employ a plate 7, through which is directed a plurality of openings 8, and in securing the plate to the building, nails, screws, or the like, are introduced through the openings 8 and into the parts of the building, said plate being designed more particularly to be secured to the end of the rafter, although the same may be secured to any convenient portion of the building.

Fixed to the front face of the plate 7 is a frame 9, through the upper end of which, and the adjacent portion of the plate, is disposed a rivet 10, and in order to prevent the frame from pivoting upon the rivet, a shoulder 11 is formed at the upper end of the frame by striking out a portion of the body of the plate and by abutting the upper end of the frame against the shoulder and holding the same in position thereunder by means of the rivet 10, the frame is positively held against swinging movement.

Each edge of the frame 9 is provided with a flange 12, which are directed at an angle to the face of the frame, and form a substantially dove-tailed socket, in which is seated and adapted to move vertically, a slide block 13, the longitudinal edges of said block being likewise tapered to snugly fit between the flanges 12, the slide block being secured to the hanger 4 by means of a bolt 14 and in order to hold the slide block rigid with the hanger and prevent independent rotation thereof, the lower end of the slide block is provided with a V-shaped notch 15, which is adapted to engage a lug 16 on the inner end of the hanger 4.

The body of the frame 9 is provided with a plurality of holes 17 and 18, which are placed in two rows and extend from the upper to the lower end of the frame 9, and the holes 17 and 18 are staggered with relation to each other, as best shown in Fig. 2 of the drawing.

The object in providing the holes 17 and 18 is to enable me to adjust the hanger 4 upwardly, or downwardly, and to this end, therefore, I provide a lever 19, one end of which is pivotally mounted upon the bolt 14, while the lower end thereof is bent outwardly from the hanger, so that it will rest in juxtaposition to the face of the frame 9 and the extreme lower end thereof is provided with a pin 20, which is adapted to engage the bores in the frame 9 and hold the hanger in its adjusted position.

The upper end of the lever 19 is reinforced by means of a washer 21, which is placed on the bolt 14 adjacent the head of the bolt, thereby firmly clamping the upper end of the lever 19 between the washer and the adjacent portion of the slide block 13.

It will be seen that by providing the two sets of holes 17 and 18, and staggering the same with relation to each other, a minute adjustment of the hanger may be obtained, and when a very slight adjustment is to be given the hanger, the lower or spring end of the lever 19 is moved outwardly, until the pin 20 is disengaged from the openings when by slightly elevating the hanger and swinging the lever 19 towards the opposite row of holes and seating the same therein, the hanger will be held in its elevated position and by stepping the lever 19 back and forth in the holes 17 and 18, the hanger may be readily adjusted to suit the occasion. When, however, it is desired to entirely remove the hanger from the frame 9, or to give the same a considerable adjustment, the pin 20 is released from the holes and the lever moved midway between the two rows of bores, when the hanger may be readily moved upwardly, or downwardly.

In applying the device to use, the plates 7 having the frames 9 secured thereto, are first attached to the building, after which the hangers are fixed in position on the gutter and the slide blocks 13 interposed between the flanges 12 and moved upwardly therein the required distance, when the lever is moved laterally into engagement with one of the holes in the frame 9, and by placing each succeeding hanger slightly higher than the preceding hanger, the proper pitch will be given the gutter for drainage purposes. In this connection, I desire to state that the several parts of my improved device exclusive of the hanger 4 may be made of sheet metal and stamped or died out, as shown, and it will further be seen that I employ but two rivets, or bolts, to secure the several parts of the device together, thereby enabling me to produce a very cheap, and at the same time, durable and efficient form of hanger, and one that may be employed in connection with various sized gutters, and it will further be seen that the hangers may

be readily and quickly adjusted as the occasion may require.

While I have shown the frame 9 as being secured to the building by means of a plate 7, which is made separate from the frame, it will be understood that if preferred, an extension may be made at the upper end of the frame 9 and integral therewith, and said extension introduced between the shingles and sheeting, or over the tops of the rafters, as the occasion may require, in which instance, the plate 7 will be entirely dispensed with.

What I claim is:

1. The herein described means for supporting gutters, comprising the combination with a hanger, and means thereon to secure the same to a gutter; of a slide block fixed to said hanger, a frame having a plurality of holes therein, said holes being in rows at opposite edges of the frame, a flange at each edge of said frame adapted to receive and slidably hold said block in engagement with the frame and means carried by said block adapted to engage either row of the holes in the frame and hold the hanger in its adjusted position.

2. The herein described means for supporting gutters, comprising a hanger, a slide block on said hanger, a bolt adapted to secure said block to the hanger, means to prevent movement of the block independent of the hanger, a frame having a plurality of holes therein, said holes being arranged in series and staggered with relation to each other, a lever carried by said block and adapted to extend into engagement with the face of the frame and a pin on said lever adapted to be swung into engagement with the holes of either series, and hold the hanger in its adjusted position.

3. The combination with a hanger of the class described; of means to adjustably secure the same to a building, comprising a frame, means to secure said frame to parts of the building, said frame having a plurality of holes therein, arranged in series, a flange at each edge of said frame, said flanges extending at an angle to the face of the frame, a slide block carried by the hanger, adapted to enter the space between said flanges and slide therein, a lever pivotally mounted on said slide block and a pin at the free end of said lever, adapted to enter either series of holes in the frame and hold the hanger in its adjusted position.

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

ELMER L. KNAB.

Witnesses:

WILLIAM ROHR,
FRED. VEITH.