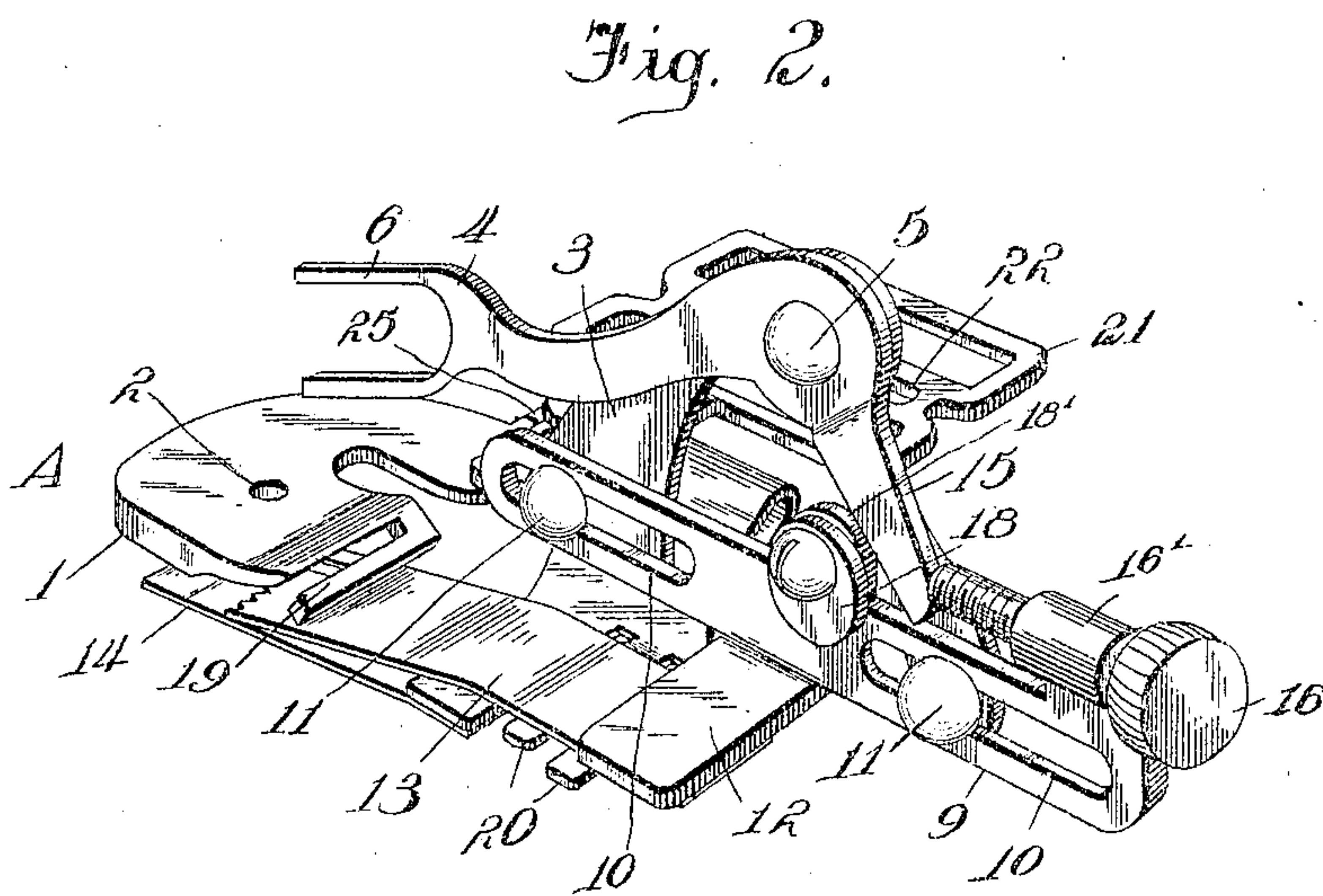
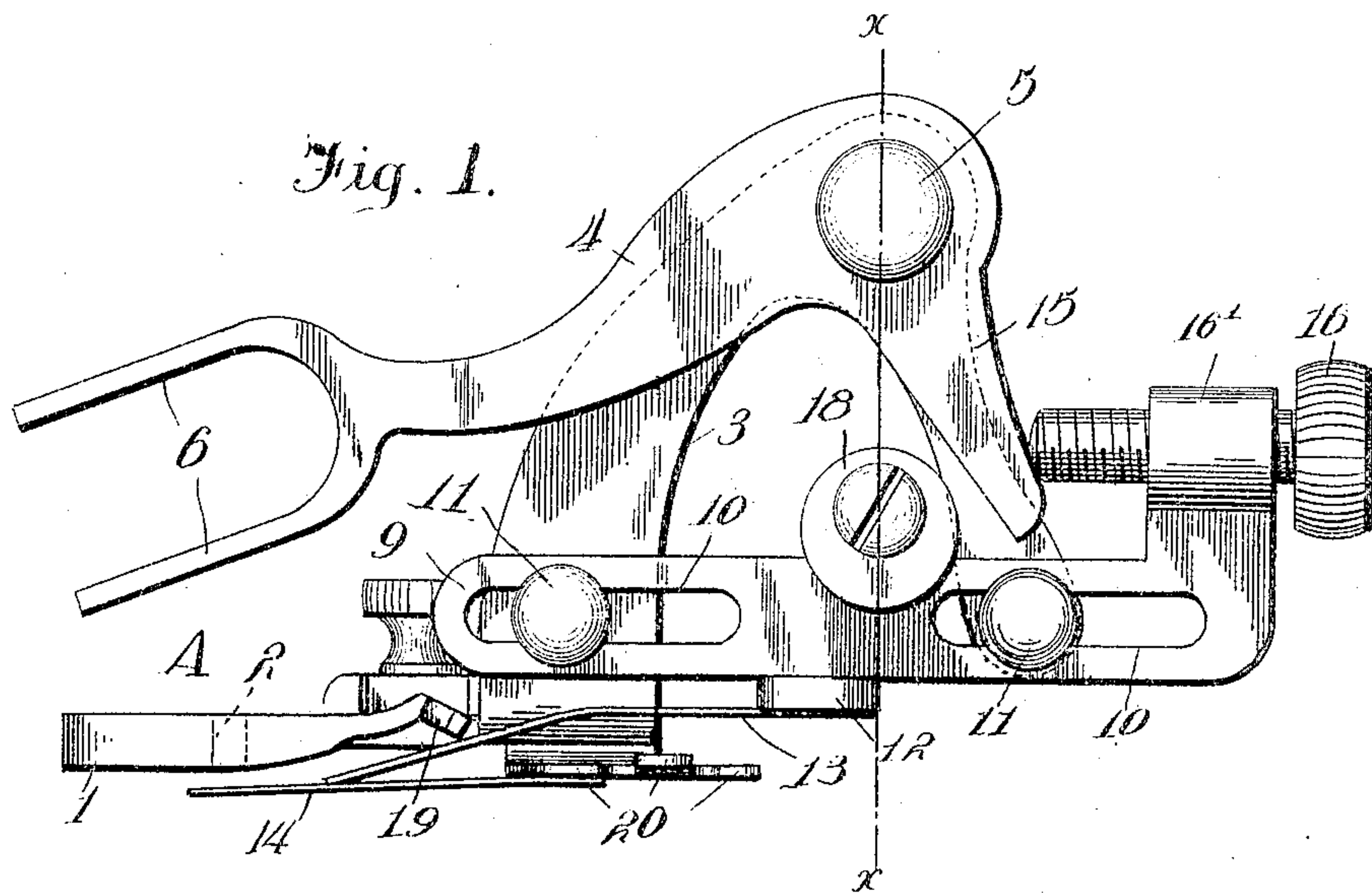


P. G. DAVIS.

RUFFLING ATTACHMENT FOR SEWING MACHINES.

APPLICATION FILED FEB. 28, 1905.

2 SHEETS—SHEET 1.



Witnesses

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Walter T. Estabrook

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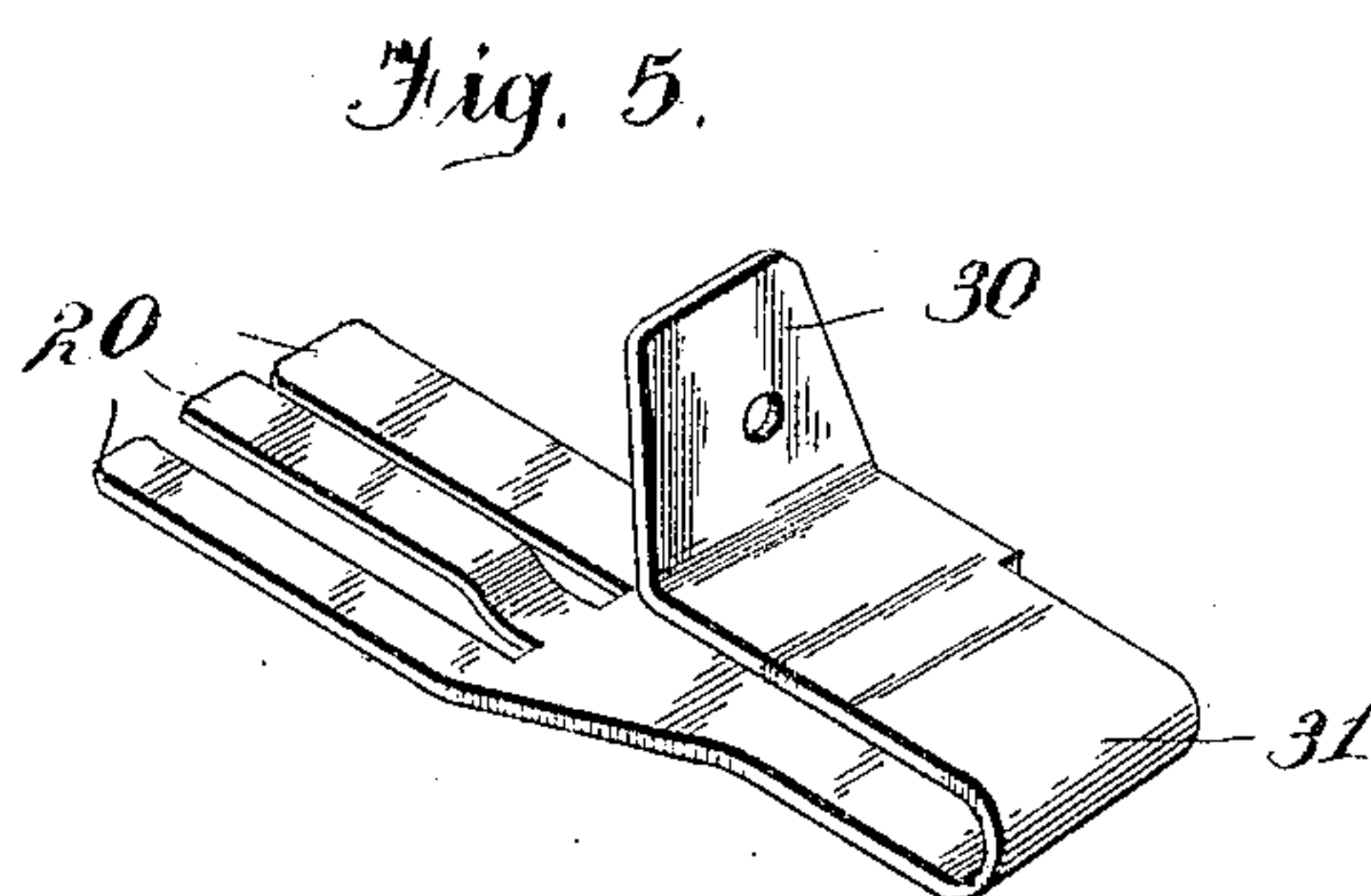
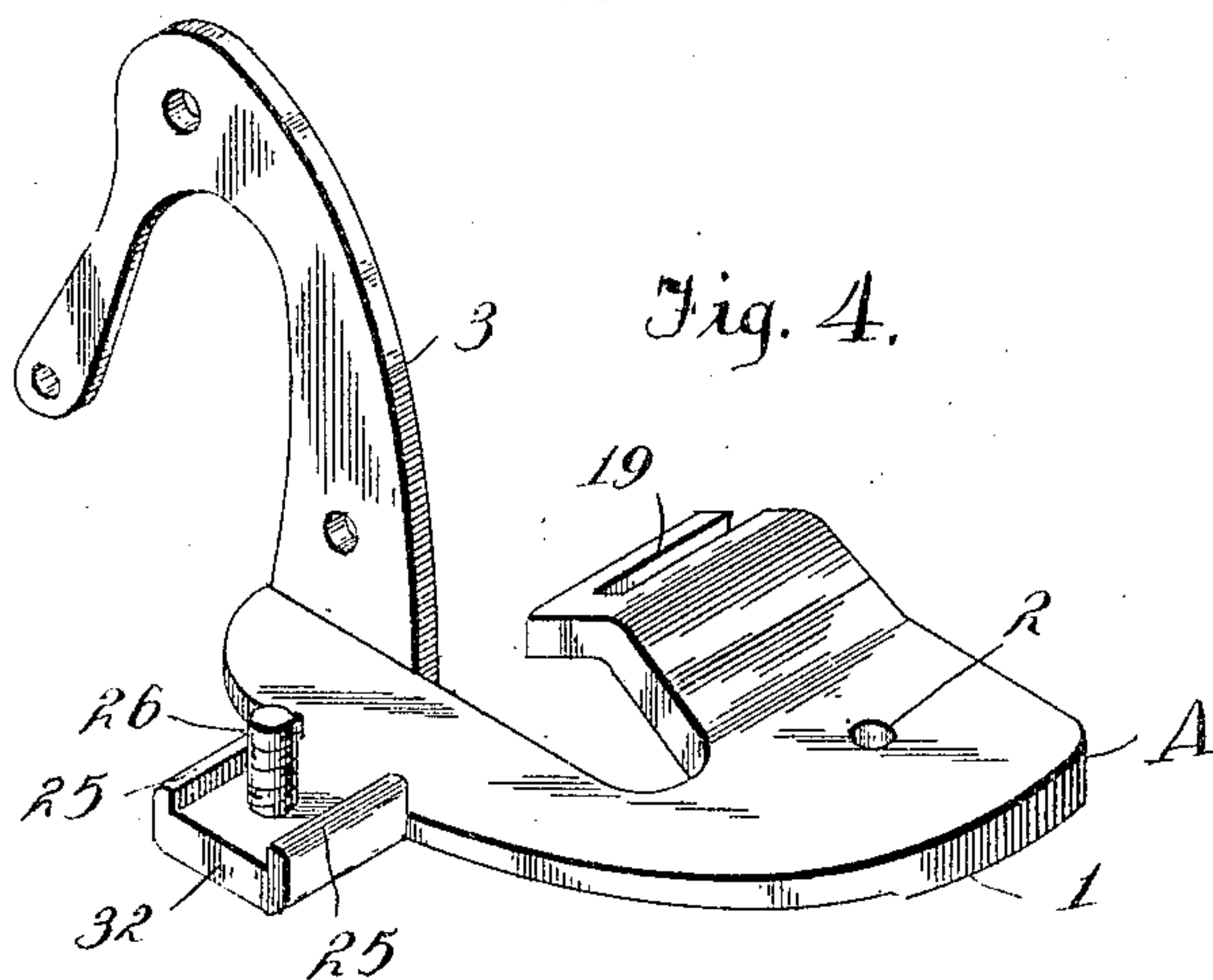
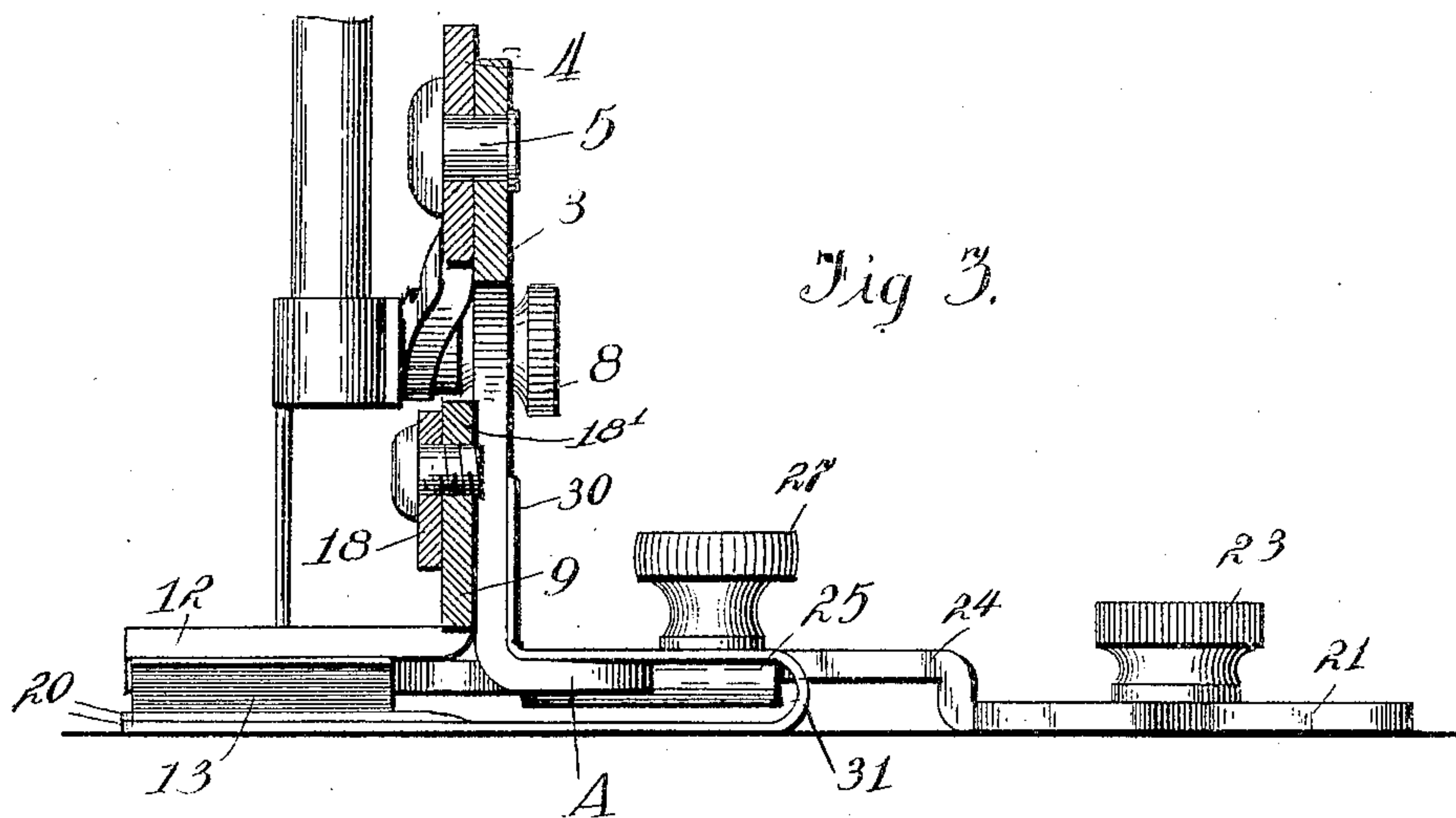
by Thomas G. S. Davis & Co.
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2 SHEETS—SHEET 2.



Witnesses

Hilton C. Simon
Watts T. Estabrook

Inventor
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his Attorneys

UNITED STATES PATENT OFFICE.

PERRY G. DAVIS, OF DAVENPORT, IOWA.

RUFFLING ATTACHMENT FOR SEWING-MACHINES.

No. 804,709.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed February 28, 1905. Serial No. 247,743.

To all whom it may concern:

Be it known that I, PERRY G. DAVIS, a citizen of the United States, and a resident of Davenport, in the county of Scott and State of Iowa, have invented a new and useful Improvement in Attachments for Sewing-Machines, of which the following is a specification.

My invention relates to an improvement in attachments for sewing-machines, the present invention being a ruffler adapted to be attached to any known make of sewing-machine, the object being to provide a ruffler having a wide range of application to different sewing-machines without requiring the removal of the foot and the loss of time incident to such changes.

My invention consists in certain novel features of construction and combinations of parts, which will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation. Fig. 2 is a perspective view. Fig. 3 is a transverse section on line $x-x$ of Fig. 1, and Figs. 4 and 5 are details.

A represents the main body portion of the ruffler and consists of a plate having a heel 1 at one end adapted to rest beneath and be clamped down by the foot of the sewing-machine, it being provided with a hole 2 for the passage of the needle. The forward end of the main body A is bent upright or at right angles to the horizontal portion, forming an arch 3. To the upper end of this arch a bell-crank lever 4 is pivoted, as at 5'. The forward end of the bell-crank lever has a fork 6, adapted to straddle the needle-clamp screw 8 of the sewing-machine, by the reciprocations of which the bell-crank lever is vibrated and the ruffler operated.

A plate 9 is provided with two elongated slots 10 10, which receive the headed studs 11 11, projecting laterally from the lower ends or feet of the arch 3, whereby the plate 9 has sliding connection with the main base-plate.

A laterally-projecting arm 12 on the sliding plate 9 has secured thereto the ruffling-blade 13, which is made of spring metal and is toothed and slotted at its forward edge to enable it to gather the cloth, which passes between it and the similarly-slotted separator-plate 14 beneath it to form the ruffle.

The downwardly-projecting arm 15 of the bell-crank lever 4 projects between a set-screw 16, carried in a threaded lug 16' on the forward end of the slide-plate 9, and the adjust-

able cam 18, also carried by an upstanding lug 18' on said plate, the lugs being spaced apart from each other, and by vibrating between said parts with the reciprocating motion of the needle the slide-plate is forced back and forth and the ruffling is accomplished. The set-screw 16 is turned to the right to make a fuller ruffle and to the left to make the ruffle more scant, while the adjustable cam 18 is provided and utilized to push the ruffler-blade forward the desired distance when used on odd-styled machines, such as the low-arm Singer and other machines having similar heights of arms.

As a means for guiding tape or other fabric straight through the machine above the ruffle the open slot 19 is formed in the main body of the ruffler in advance of the needle-hole 2, the main body portion being reduced in thickness and upwardly inclined at this point, as shown in the drawings, and as a similar means for guiding cloth beneath the ruffle straight through the machine the fingers 20 20 are provided, the edge of the cloth passing between the fingers, which are slightly out of alinement with each other and are formed at one end of a U-shaped member 21, the opposite shorter arm of which member is provided with a flange 30, secured to one leg of the arch 3, preferably by means of one of the studs 11.

As an additional means for clamping the ruffler to the sewing-machine plate an adjustable plate 21 is provided. This plate at its outer end has one or more slots 22 22, adapted to receive the thumb-screw 23, by which the adjustable plate is clamped down fast to the machine-plate, and as a means for adjusting it the offset slotted arm 24 is provided, which arm forms a part of the slotted adjusting-plate 21. This arm is received and guided between lugs 25 25, turned up on a lateral extension 32, projecting from the main body-plate, and receives in its slot the threaded stud 26, and a thumb-nut 27 screws down on the stud to secure the plate 21 and arm 24 in position.

To apply my improved ruffler, it is simply necessary to raise the foot of the machine in the usual fashion and place the heel of the main body portion beneath it, with the needle-hole in position for the passage of the needle. Then the fork is placed over the needle-clamp screw, and the thumb-screw 23 is inserted in one of the slots of the adjustable plate 21 and screwed down tight. If the slots do not just

register with the hole in the machine-plate, the adjustable plate is lengthened or shortened to the required extent, after which the thumb-nut is screwed down tight on the threaded stud, and for the same machine this adjustment does not have to be repeated. Thus it will be seen that the foot does not have to be removed from the machine when my improved ruffler is applied, as in many makes of rufflers, and, furthermore, when the ruffler is not required it does not have to be removed from the machine, but may be swung aside with the thumb-screw 23 as its pivot.

By the various adjustments my ruffler is applicable to any known make of sewing-machine, and hence I term it a "universal" ruffler. In this way a great deal of the nuisance heretofore experienced by the dealer in not having in stock rufflers for a given make of machine is obviated, as the range of adjustment and adaptability of this invention makes it serve for any machine now on the market. At the same time my improved ruffler is simple in construction, composed of few parts, not liable to break or get out of order, may be placed on the market at a small cost, and is effectual in the performance of its functions.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention,

and hence I do not wish to limit myself to the exact construction herein set forth; but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a ruffler, the combination with a main body portion, of a concavo-convex transversely-slotted portion formed integral with the main body portion, a ruffling-blade, a stationary separator-plate, and means for adjustably securing the ruffler to the machine.

2. In a ruffler, the combination with a main body portion, and means for securing the same to a machine, of an upright member, a longitudinally-recessed slide-plate mounted upon the upright, a ruffler-blade carried by the slide-plate, a separator-plate beneath the ruffler-blade, upstanding lugs mounted on the slide-plate and spaced apart from each other, adjustable members secured to each of the lugs, and a bell-crank lever, one end of which intervenes between the adjustable members and alternately engages the same.

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

PERRY G. DAVIS.

Witnesses:

HARRY T. SHENCK,
C. A. STUTSMAN.