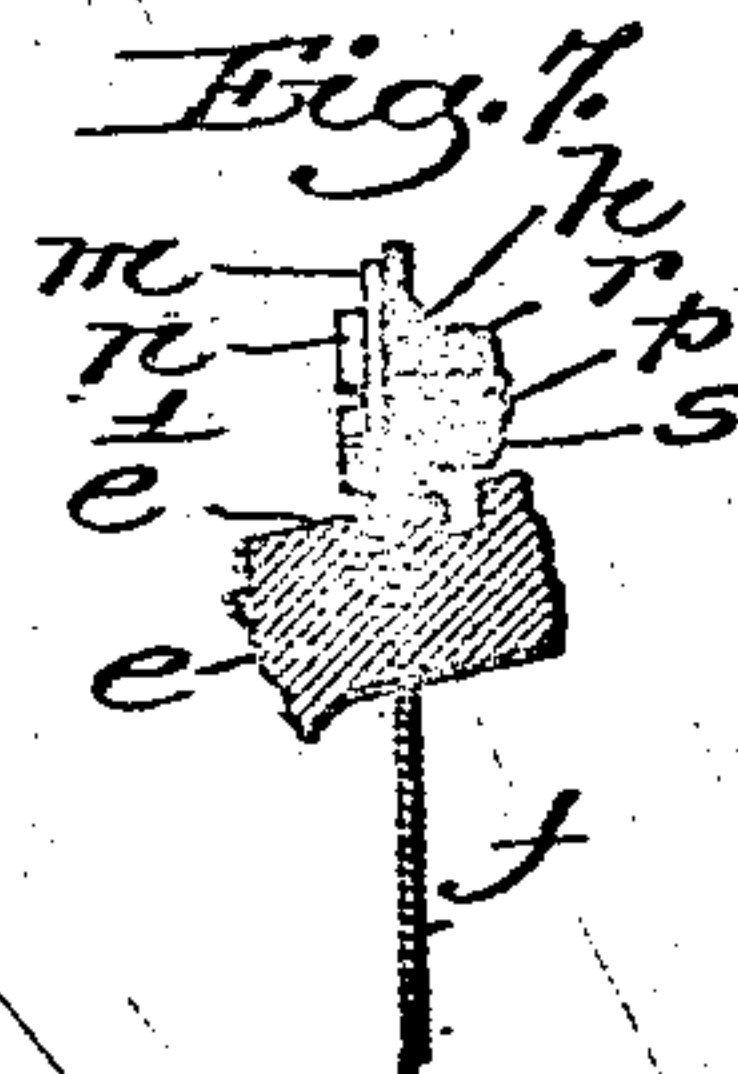
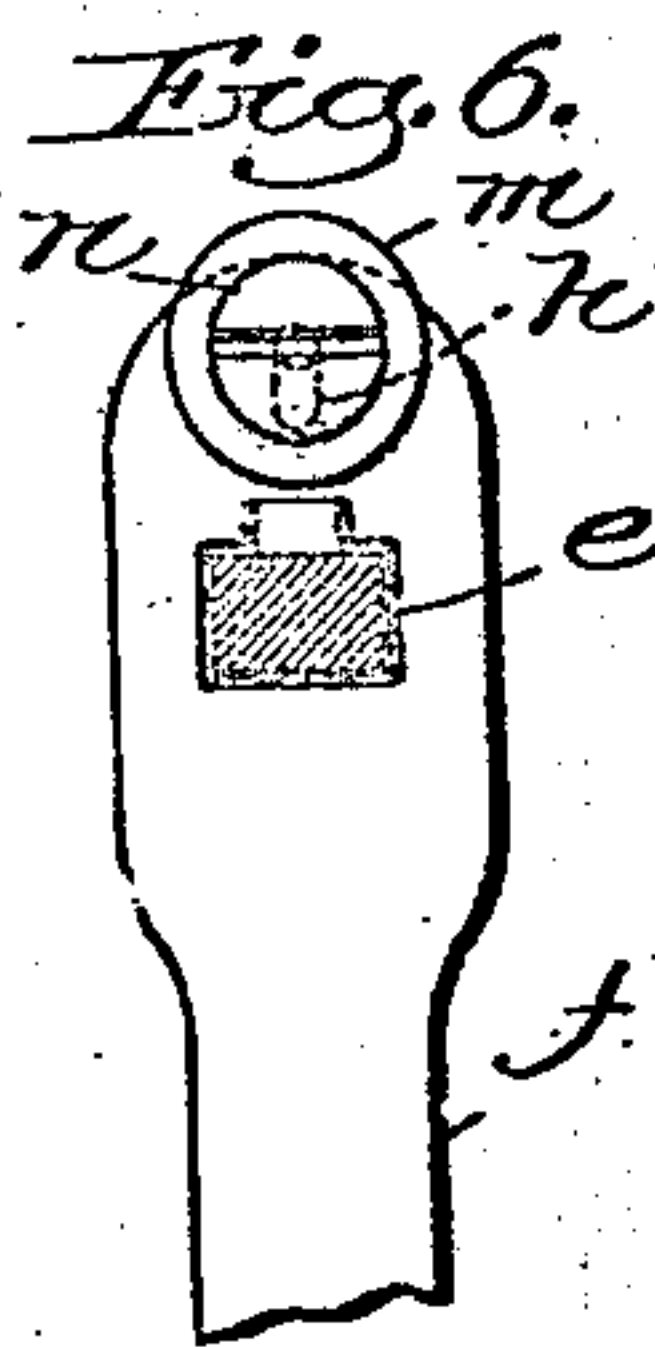
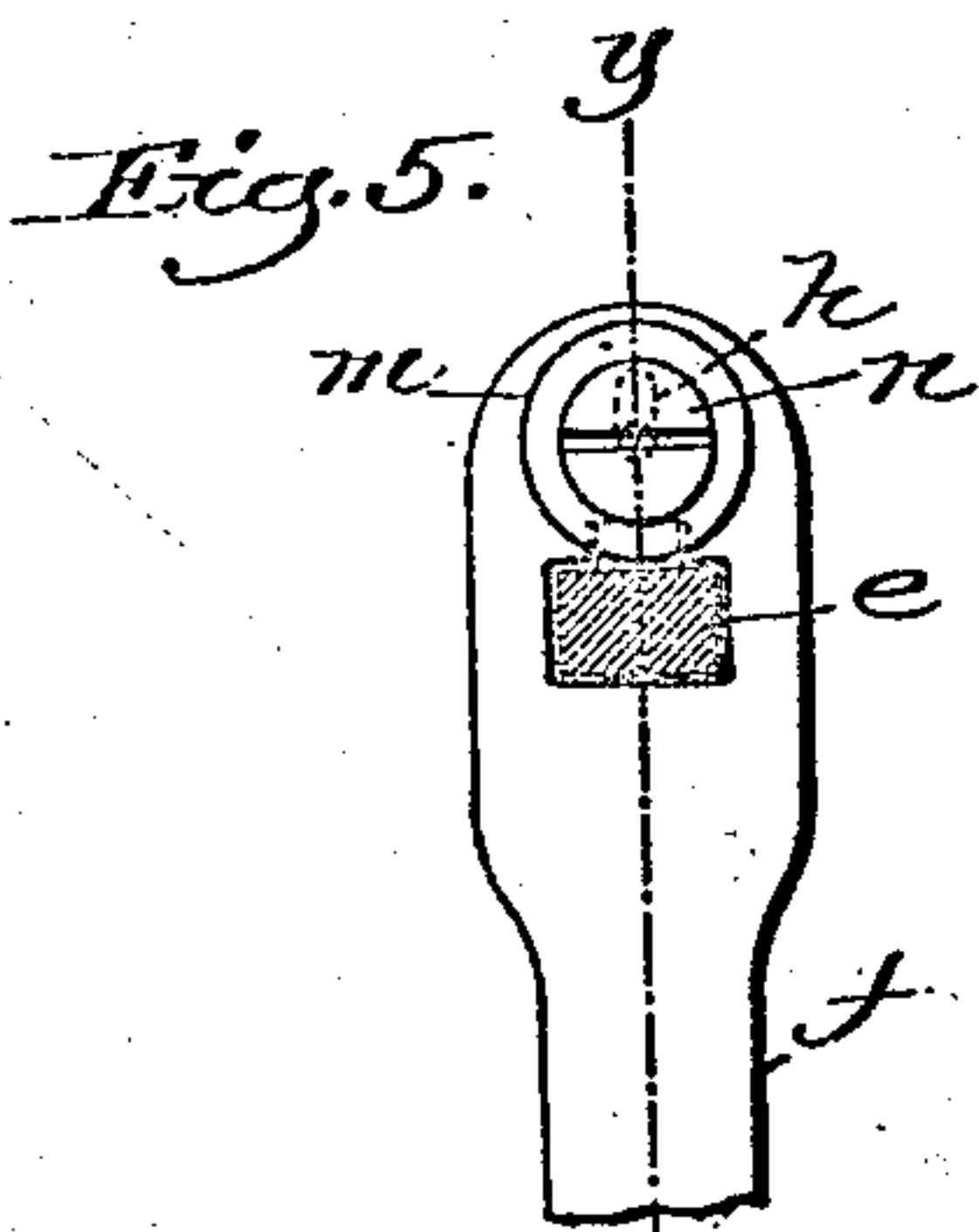
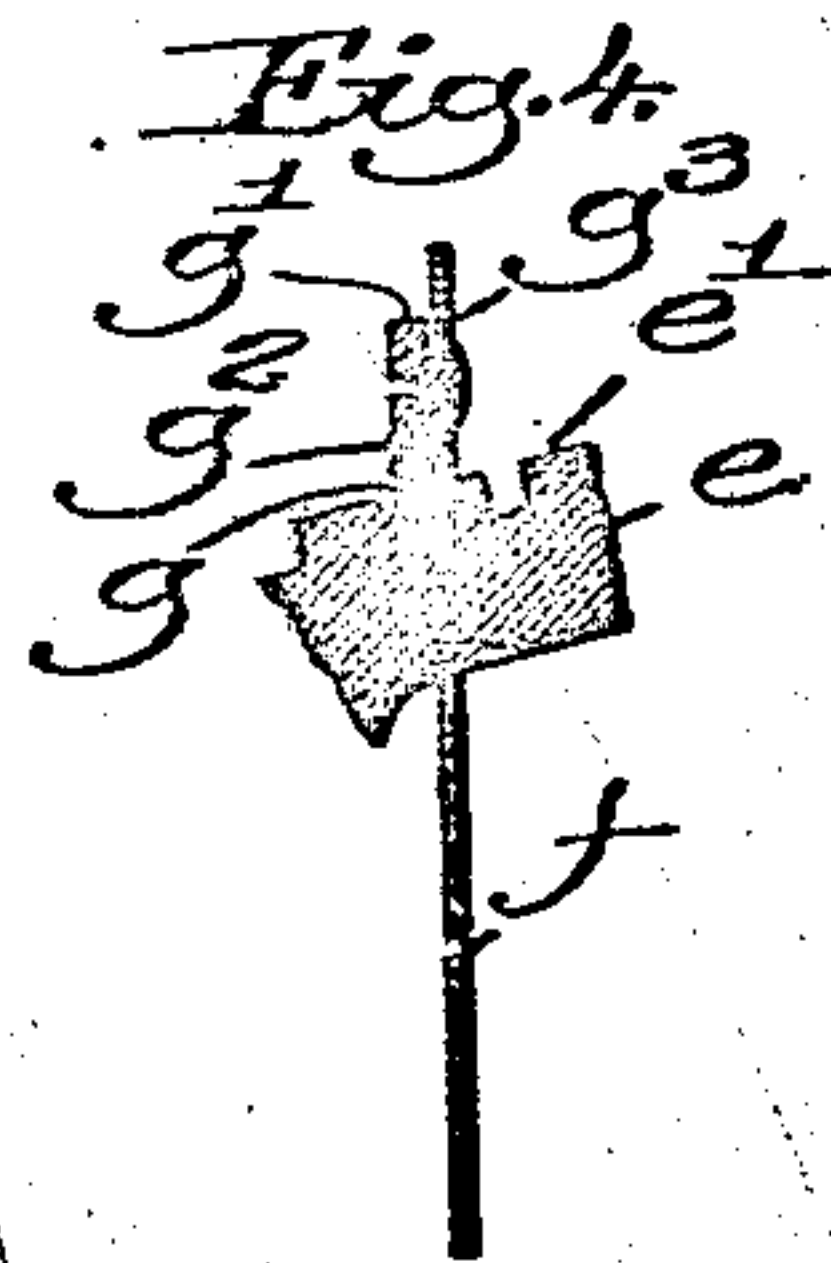
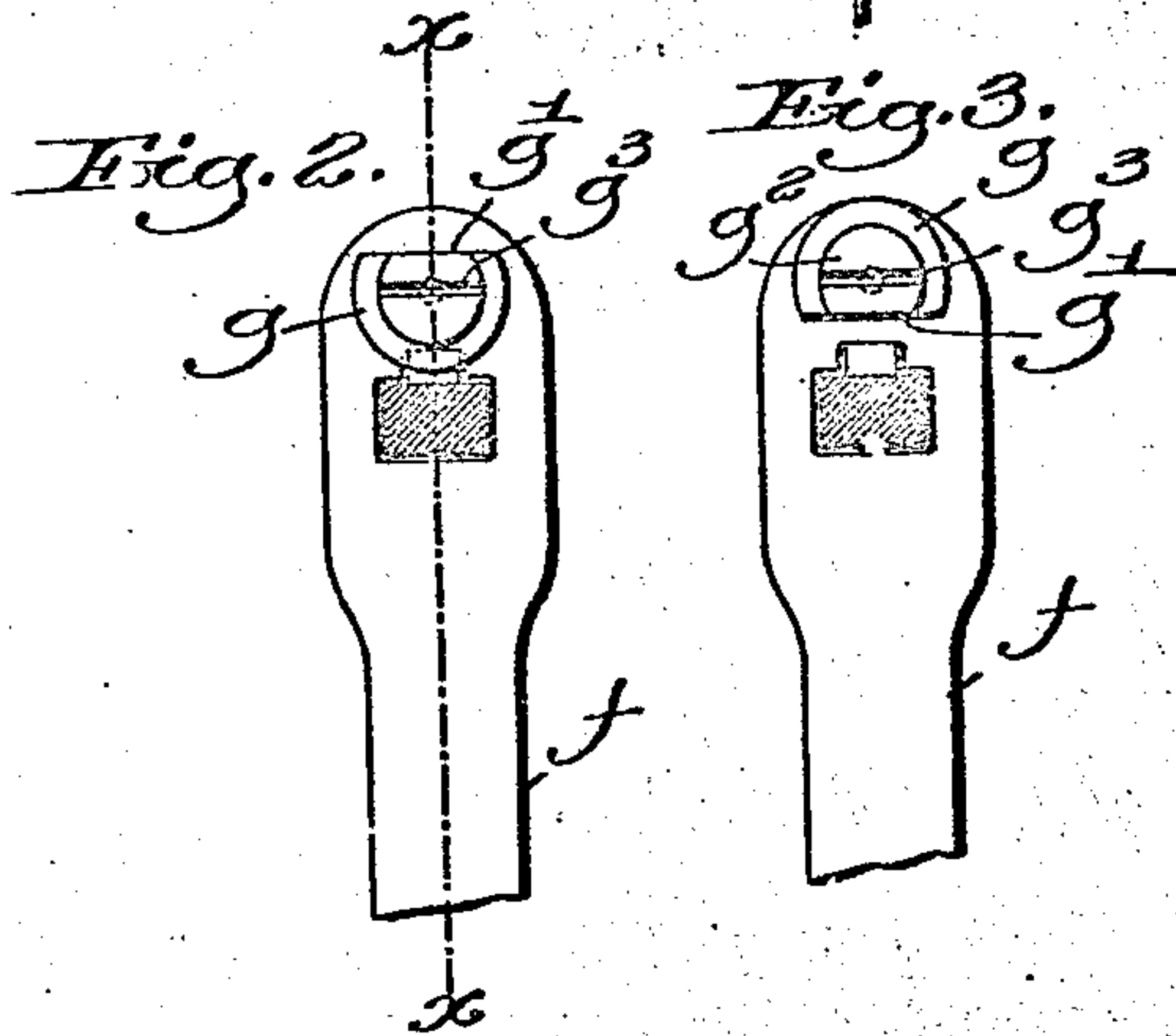
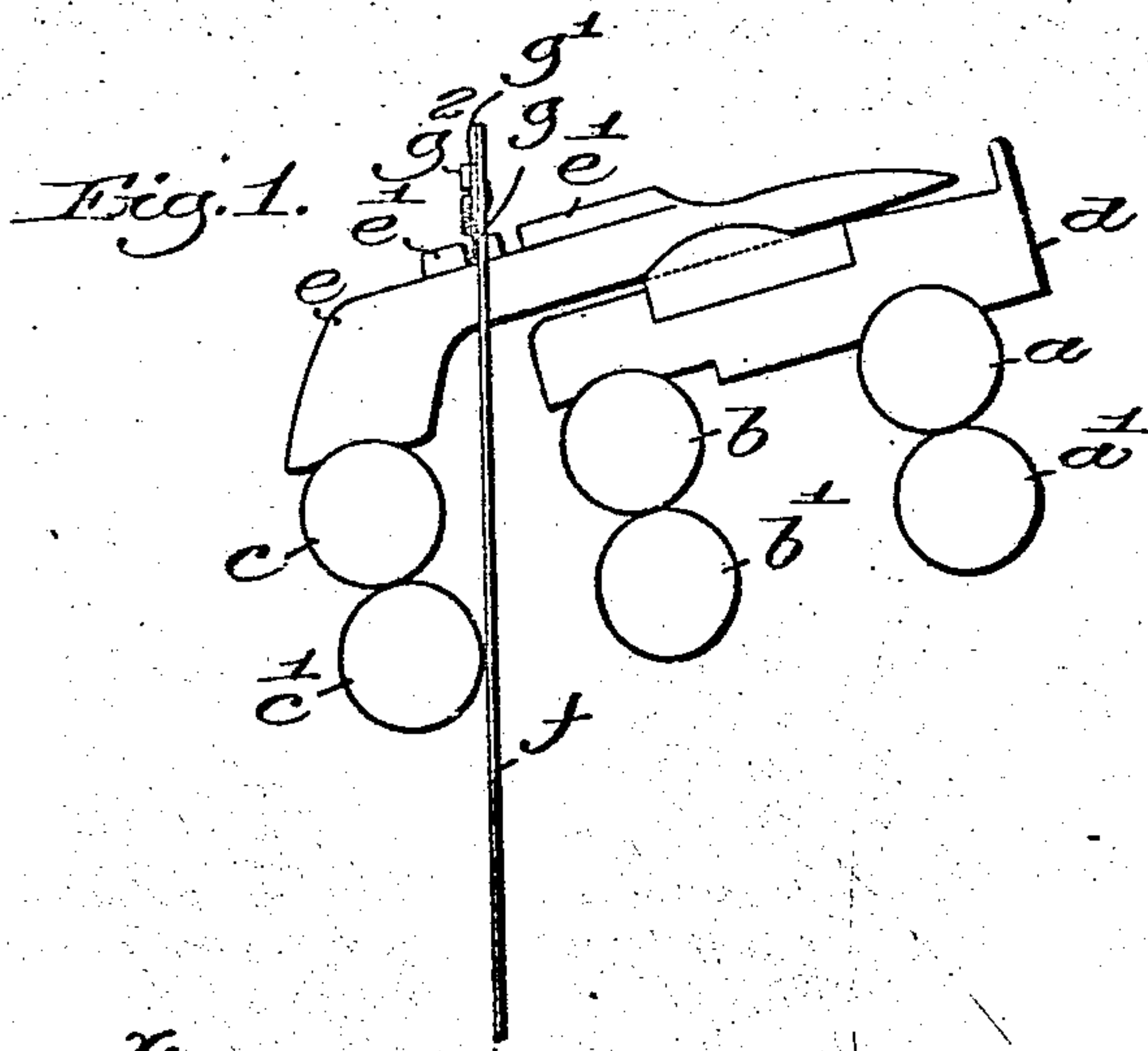


C. A. PIERCE.
TOP ROLL SADDLE AND STIRRUP.
APPLICATION FILED JAN. 10, 1906.

898,919.

Patented Sept. 15, 1908.



witnesses:
Fred. S. Grunow.
Walter R. Trott

Inventor.
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attys.

UNITED STATES PATENT OFFICE.

CLARENCE A. PIERCE, OF MANCHESTER, NEW HAMPSHIRE, ASSIGNOR TO EZRA DIXON, OF
BRISTOL, TENNESSEE.

TOP-ROLL SADDLE AND STIRRUP.

No. 898,919.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed January 10, 1906. Serial No. 295,330.

To all whom it may concern:

Be it known that I, CLARENCE A. PIERCE, a citizen of the United States, residing at Manchester, county of Hillsboro, State of New Hampshire, have invented an Improvement in Top-Roll Saddles and Stirrups, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawings representing like parts.

This invention relating to top roll saddle has to do more particularly with the stirrup for weighting the saddles, I having provided the same with a locking device, which when in its operative position connects the stirrup and saddle but which may be turned into its inoperative position when it is desired to adjust the stirrup longitudinally of the saddle.

The rolls employed in spinning machines and drawing heads need frequently to be adjusted to adapt them to the requirements of the work to be done. The stirrups are suspended from the front roll saddles and sustain the usual weights, and in practice the stirrup should hang freely between the front and middle rolls and should touch neither set of rolls, and it is of great convenience to be able to ascertain readily by looking along the line of top saddles if the stirrups on the saddles occupy a uniform position, and if they do it indicates that the tension on the material passing through the rolls is uniform.

The adjustment of the rolls to accommodate the stock is effected by adjusting the front top roll toward or away from the other top rolls, and if the saddle is engaged with the top roll at but one point, the adjustment of the front top roll outwardly will cause the front side of the stirrup to contact with the inner side of the bottom front roll, and the stirrup will be unnecessarily worn due to the revolving against it upwardly of the bottom front roll, which action tends to lessen the effect of the weight on the stirrup. Consequently, I have made provision for readily adjusting the stirrup backwardly or forwardly on the front saddle to prevent contact of the stirrup with the bottom front roll, and in fact by reason of the provision for maintaining the stirrup in the desired position on the front saddle, it is possible to prevent the contact of the stirrup with either set of rolls.

Figure 1 in outline shows two rear, middle and front rolls and top and back saddles with

my improved stirrup hanging on the front roll saddle; Fig. 2 shows the upper end of the stirrup in its operative engagement with the front roll saddle; Fig. 3 shows the locking device of the stirrup in its inoperative relation to the front roll saddle; Fig. 4 is a section on the line *x*, Fig. 2; Fig. 5 shows a modified form of locking device in its operative position; Fig. 6 shows the same in its inoperative position, and Fig. 7 is a section in the line *x*, Fig. 3.

The rear rolls *a*, *a'*, the middle rolls *b*, *b'*, the front rolls *c*, *c'*, and the back roll saddle *d* resting on the rolls *a* and *b* are and may be all as usual. The front roll saddle *e* that rests at its rear end on the back saddle, and at its front end on the top roll *c* of the set of front rolls, has at its upper side a rib or fin *e'* shown as provided with a plurality of notches, the drawing showing two notches. These notches serve to locate accurately the stirrups *f* that are suspended from the front roll saddles *e*, there being, it will be understood, a series of such saddles and stirrups varying in number according to the number of rolls and spindles.

It will be understood that the cotton or other fiber being delivered from the front rolls must be subjected to the same degree of tension throughout the spinning machine or drawing head to insure uniform work or thread, and hence it is of great advantage and necessary to so mount the stirrups on the front roll saddles that they may be retained in alinement and against movement on the saddles when the positions of the rolls or saddles are changed, yet these stirrups must be so mounted upon the saddles that they may be adjusted thereover so that in any adjustment of the saddle the stirrups will not contact with the rolls. To enable this to be done, I have provided the upper ends of the stirrups with locking devices that may be moved on the stirrups when it is desired to disconnect the stirrup from the saddle prior to adjusting the relation of the stirrup to the saddle.

Referring to Figs. 2 and 3 showing a part of the stirrup of Fig. 1, it will be noticed that the upper end of the stirrup is provided with a locking device *g* shown as a disk having a portion thereof removed to leave a portion *g'* occupying the position of a chord, said disk having a screw-driver slot *g²*, the shank of the disk being extended through a hole in the up-

per end of the stirrup and being headed over, as shown in Fig. 4, the heading being sufficient in extent to cause the locking device to remain in any position in which it may be
 5 adjusted by the screw-driver in the slot g^3 . When it is desired to adjust the stirrup longitudinally with relation to the saddle e , the operator will insert a screw-driver in the slot g^3 and turn the locking device into the position Fig. 3, thus removing the same from the
 10 notch in the saddle e , when the stirrup may be moved longitudinally of the saddle and the locking device be made to enter any other notch. The operator can readily see by
 15 casting her eye along the line of saddles e whether or not the stirrups occupy the same position thereon and should they not occupy the same position, then the operator will change the position of the stirrup with rela-
 20 tion to the saddle e .

Referring to Figs. 5, 6 and 7 it will be seen that the upper end of the stirrup has a slot h shown by full lines in Fig. 7, and dotted lines in Figs. 5 and 6. The locking device m in
 25 Figs. 5 to 7 resembles a circular washer, and through this washer is extended a screw n having a screw-driver slot, a threaded shank p of the screw entering a nut r . A washer s is shown as interposed between the inner side
 30 of the nut and the rear side of the stirrup. To adjust the locking device shown in Figs. 5 and 7 from its operative position Figs. 5 and 7 into its inoperative position Fig. 6 that the stirrup may be moved over the saddle, the
 35 operator will insert the screw-driver into the slot of the screw and will turn the same sufficiently to unclamp the locking device so that the screw may be raised in the slot h from the position Fig. 5 into the position Fig. 6 where
 40 it will be seen that the locking device is removed from its engagement with the notch in the rib at the top of the saddle e and the stirrup may be adjusted to occupy any necessary notch.

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

1. The combination with a top roll saddle, of a stirrup and a rotatable locking device

carried by the stirrup and adapted to engage 50 the upper side of the saddle thereby to lock the stirrup in position on the saddle.

2. In apparatus of the class described, a saddle having notches, combined with a stirrup suspended from said saddle and provided 55 with a locking device, said locking device being movable on the stirrup into its operative or inoperative position.

3. A stirrup for a top roll saddle, said stirrup having a rotatable locking device pre- 60 senting a parti-circular saddle-engaging edge and another edge intersecting said parti-circular edge as a chord, the rotation of the locking device on the stirrup bringing the parti-circular saddle-engaging edge either 65 into its operative position to engage the saddle thereby to lock the stirrup thereto or into its inoperative position out of engagement with the saddle.

4. The combination with a top roll saddle, 70 of a stirrup and a locking device carried by the stirrup and movable thereon into operative position in locking engagement with the saddle or into inoperative position out of locking engagement with the saddle, said 75 saddle being shaped to cooperate with the locking device when in its operative position thereby to lock the stirrup to the saddle.

5. The combination of a front top roll saddle having a row of upwardly-extending 80 projections forming a series of deep notches on the top of the saddle, and a weight stirrup having a square opening for the front saddle, a nick formed in the upper edge of the opening for the projections on the saddle and a 85 catch pivotally secured to the weight stirrup in a position to cover or uncover the nick in the weight stirrup, whereby the weight stirrup is adjustable on the saddle and locked in the adjusted position to the saddle. 90

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

CLARENCE A. PIERCE.

Witnesses:

JAMES EDMOND,
 JAMES C. MURDOCH.