

No. 731,396.

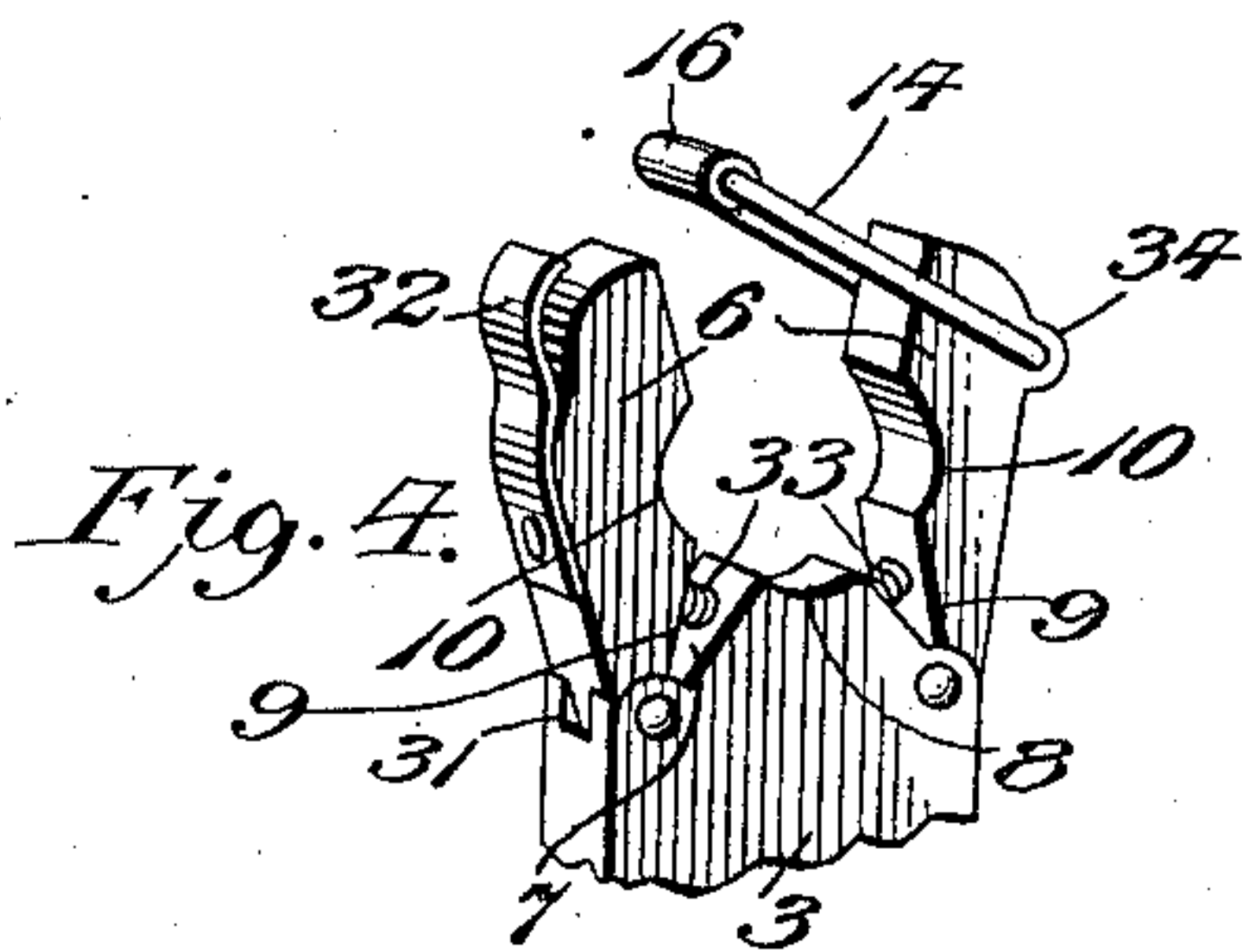
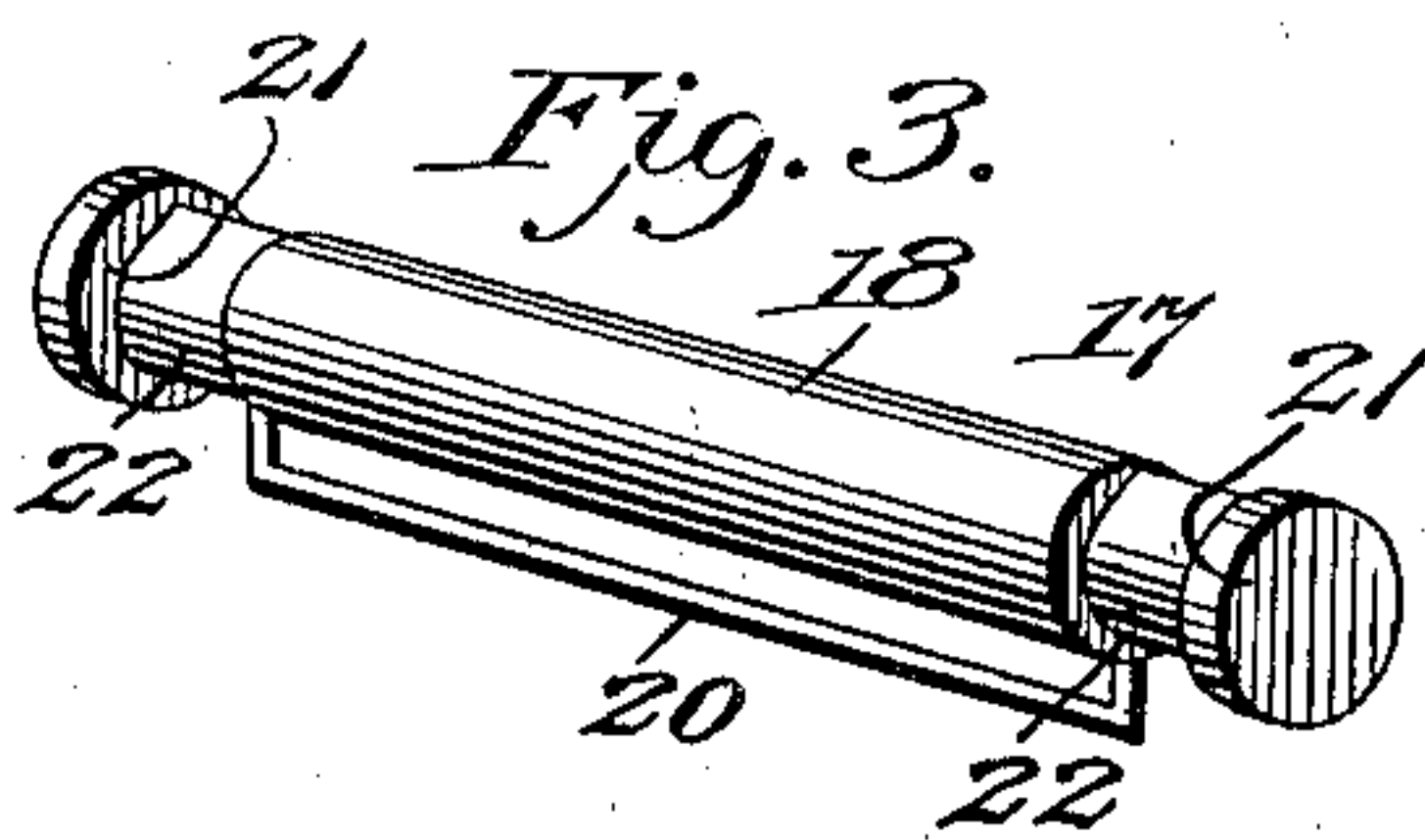
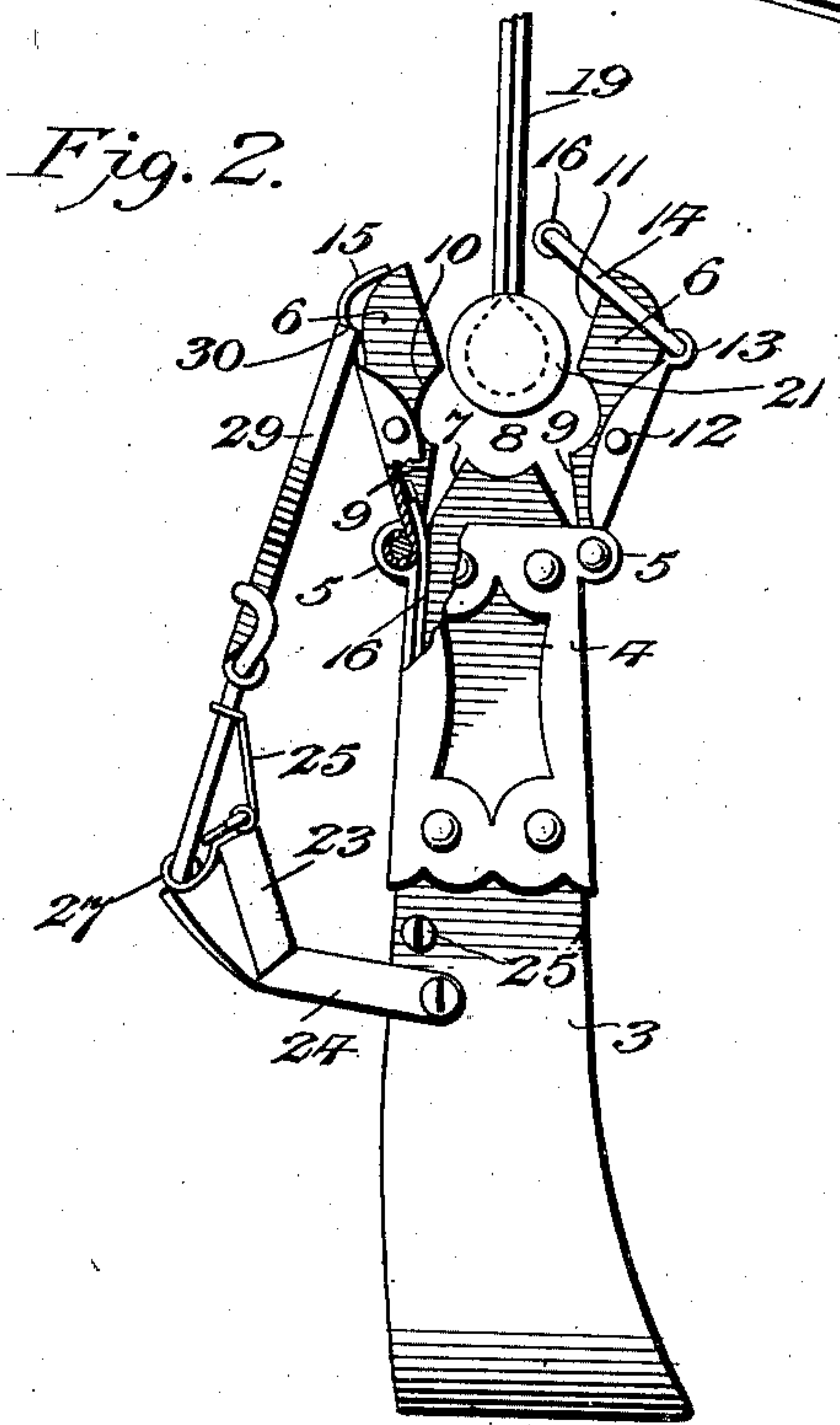
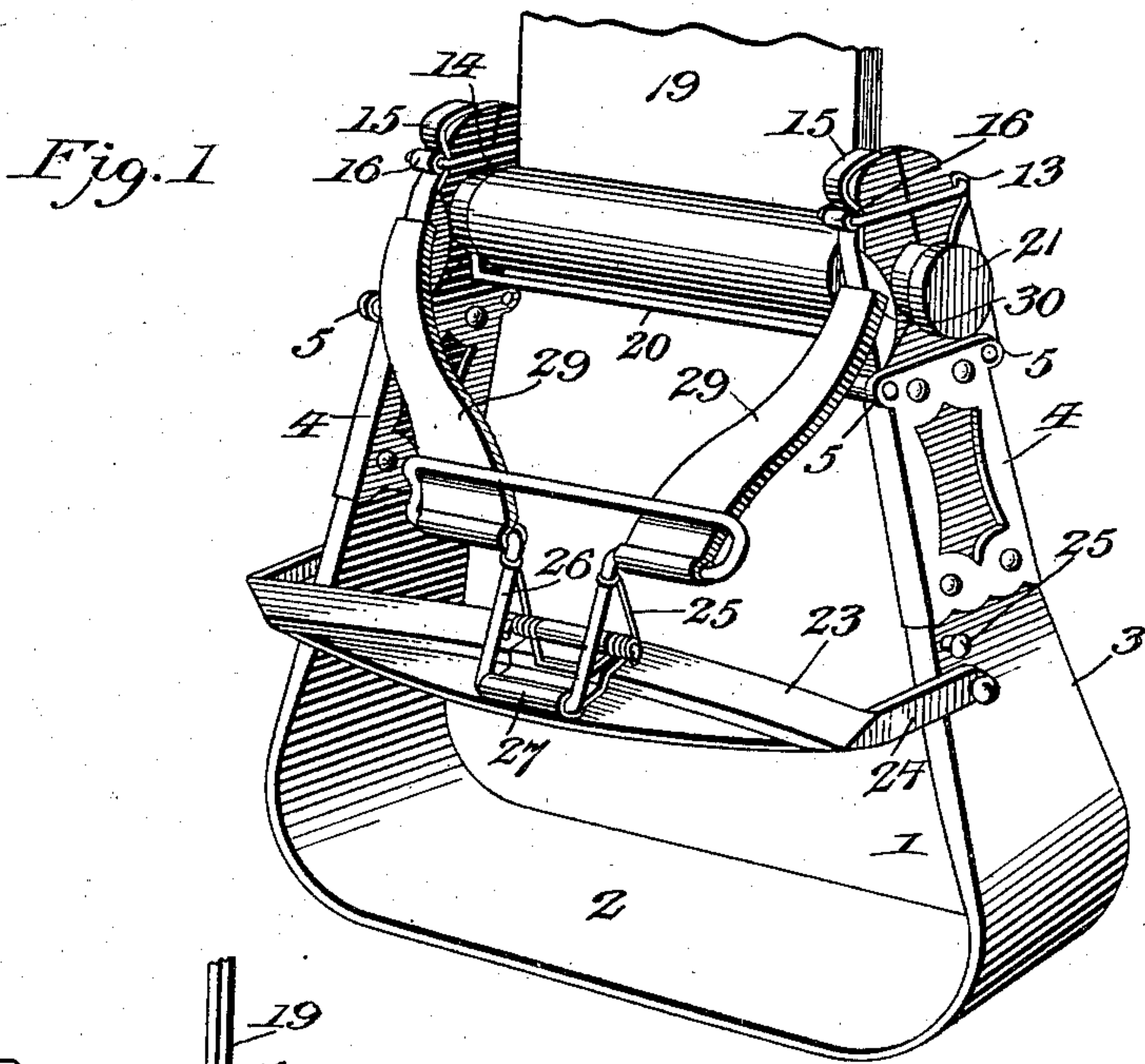
PATENTED JUNE 16, 1903.

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STIRRUP.

APPLICATION FILED MAR. 20, 1902.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY TREAS AND HARRY L. KINZY, OF DELIGHT, ARKANSAS.

STIRRUP.

SPECIFICATION forming part of Letters Patent No. 731,396, dated June 16, 1903.

Application filed March 20, 1902. Serial No. 99,202. (No model.)

To all whom it may concern:

Be it known that we, HENRY TREAS and HARRY L. KINZY, citizens of the United States, residing at Delight, in the county of Pike and State of Arkansas, have invented certain new and useful Improvements in Stirrups, of which the following is a specification.

This invention relates to a safety-stirrup; and the main object of the same is to provide a stirrup having simple and effective means for releasing the hanger-strap therefrom by the pressure of the foot applied in a certain direction to thereby avoid accidents in the event of runaways or when a rider is thrown from a horse by effecting an instant release of the stirrups and freeing the feet of the rider.

A further object of the invention is to provide a stirrup of this class wherein the parts are constructed to reliably operate to effect a disconnection of the stirrup from the hanger-straps.

With these and other objects and advantages in view the invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a stirrup shown applied to a portion of a hanger-strap and embodying the features of the invention, the parts of the stirrup being shown in normal position. Fig. 2 is a side elevation of the improved stirrup with the parts shown open and ready for detachment. Fig. 3 is a detail perspective view of the hanger-bar. Fig. 4 is a detail perspective view of the upper extremity of one side of the stirrup, showing a modification in the construction.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a stirrup of the usual form, having a lower foot-rest or tread-bar 2 and opposite upwardly-extending inwardly-converging sides 3. The stirrup may be made of wood or metal, and when formed of wood the upper portions of the sides 3 have metal clips 4 surrounding the same and secured thereto, the upper ends of the said clips at opposite sides being provided with transversely-alined outstanding pairs of ears 5, to which upper jaws 6 are pivotally connected

at their lower reduced ends. The upper terminals of the sides 3 have inward bevels 7 at opposite edges converging toward a concave seat 8, and the lower inner edges of the jaws 6 are beveled, as at 9, at an angle corresponding to the bevels 7 to fit closely against the latter when the jaws are closed. Above the bevels 9 the inner edges of the jaws are constructed with curved recesses 10, which become continuous with the concave seats 8 and provide an approximately pear-shaped opening, above which the straight inner edges 11 of the jaws come into close contact in a central vertical plane when the said jaws are closed. The outer edge of each jaw adjacent to its pivotal point and for a suitable distance above the latter has a metallic sheathing 12 secured thereover, the upper end of one sheathing being formed with a knuckle 13, in which a link 14 is pivotally mounted, and the upper end of the other sheathing continued into a spring locking-lip 15, having a seat 16 to receive the free end of the link 14, the upper end of the said spring 15 being first bowed outwardly and then bent inwardly in close engagement with the upper terminal of its jaw, but free to move over the latter. The lower portions of the jaws 6 are also engaged by flat springs 15, extending upwardly from the clips 4 at opposite side edges and beyond the pivotal connection of said jaws, as clearly shown by Fig. 2, the function of these springs being to throw the jaws outwardly in open position when the links 14 are released.

A detachable hanger-bar 17 coöperates with the jaws 6, the said bar having a cylindrical portion 18, around which is placed or wound and secured the lower end of a hanger-strap 19, which is prevented from shifting laterally by a loop 20, secured to the hanger-bar and depending below the latter to thereby obstruct interference of the hanger-strap with the movement of the jaws. The opposite ends of the hanger-bar are in the form of flanged heads 21, and between the said flanged heads and the cylindrical portion of said bar substantially pear-shaped necks 22 are formed, which are embraced by the similar-shaped walls provided by the jaws 6 and the upper extremities of the sides 3 when said jaws are closed in view of the curved recesses 10 and concave seats 8, the length of the

necks 22 being such as to locate the flanged heads 21 at the outer side of the opposite pairs of jaws.

In connecting the stirrup to the hanger-strap and saddle for practical service the jaws are opened and the necks 22 are arranged between the jaws, as shown by Fig. 1, and after such arrangement of the hanger-bar the links 14 are closed down over both jaws and have their free ends secured in the seats 16 of the springs 15. The upward throw of the links 14 or disengagement of the free ends of said links from their seats will result in an immediate opening of the opposite pairs of jaws, and thereby release the hanger-bar and detach the stirrup.

The means for throwing the links 14 open or out of their seats so as to permit the jaws to fly apart are controlled by foot-operated devices comprising a pressure-bar 23, having opposite angular extremities 24, pivotally secured to the sides 3 below the lower ends of the clips 4, the said pressure-bar being at such an elevation as to be easily reached or positively operated by the foot of the rider within the stirrup and also having the rear side comparatively smooth, so as to avoid injury to or abrasion of the boot or shoe worn by the rider. The upward movement of the pressure-bar 23 is limited by stop-studs 25, secured to the sides 3 at a suitable distance above the pivotal points of the angular extremities 24, the upper edges of the latter being adapted to contact with the said stop-studs. A carrier 26 of loop form has its lower reduced extremity pivotally mounted in the front end of a clip 27, secured on the pressure-bar 23 at the center of the latter, the said clip also having spring-arms 28 movably attached to the rear end thereof by suitable means and slidingly engaging the opposite members of the lower reduced extremity of the carrier to hold the latter and the parts carried thereby, which will be hereinafter referred to, inwardly toward the stirrup. The upper extremity of the carrier is laterally extended and disposed in a plane at right angles to the lower extremity, and thereto a pair of pusher-arms 29 are movably attached and are curved laterally in such planes as to engage the metallic sheathings on the forward edges of the front jaws of each pair of the latter. The free ends of the pusher-arms are held in continual engagement with the front jaws through the medium of the spring-arms 28, and to prevent the pusher-arms from slipping out of place they are constructed with edge guard-flanges 30. The function of these pusher-arms is to release the links 14 from their seats 16 in the springs 15, and the upward movement of the pusher-arms to effect this function is obtained by moving the pressure-bar 23 upwardly. The pusher-arms are of equal length, and their free ends simultaneously engage the ends of the links 14, resting in the seats 16, when the pressure-bar 23 is elevated high enough by the foot of the

rider brought to bear thereagainst when it is desired to detach the stirrup from the hanger-strap. This detaching operation can be quickly accomplished by an upward pressure of the foot of the rider against the pressure-bar 23; but under normal conditions when it is desired that the stirrup remain in connected relation to the hanger-strap accidental disengagement of the stirrup will not ensue in view of the fact that the foot of the rider will be held down out of engagement with the pressure-bar.

The modified form of the device shown by Fig. 4 is adapted for use on metallic stirrups, and the general principle is identically the same, as well as the salient features, and in this instance the clips 4 and sheathings 12 are dispensed with and the lower ends of the jaws 6 are pivoted directly in slots 31, formed in the upper ends of the sides 3. The springs 15 are replaced by flat springs 32, which are secured against the front edges of the front jaws of each pair and are shaped in a manner similar to the said springs 15. The springs 15 are replaced by coiled springs 33, interposed between the bevels 9 at the lower extremities of the jaws and the bevels 7 at the upper ends of the sides. A further change in this modified construction in view of the absence of the metallic sheathings is that the link 14 is pivotally attached in each instance to an ear 34, formed on the rear edge of the upper portion of the rear jaw of each pair of jaws.

The improved stirrup will be found advantageous in its use, and though the preferred forms of the same have been shown it is obvious that changes in the proportions, dimensions, shape, and minor details may be resorted to without departing from the principle of the invention.

Having thus fully described the invention, what is claimed as new is—

1. A safety-stirrup having pairs of jaws at the upper terminals of the opposite sides thereof, resilient devices for automatically opening said jaws, a hanger-bar detachably held between the jaws, independent means for engaging the jaws to hold the latter closed, and devices for releasing the said jaws by engaging the independent means.

2. A safety-stirrup having pairs of automatically-opening jaws at the upper extremities of the sides thereof, means for holding the said jaws closed, a pressure-bar movably attached to the stirrup and supporting a spring-actuated carrier, pusher-arms movably held by the carrier to release the said means for holding the jaws closed, and a hanger-bar detachably engaged at opposite extremities by the said jaws.

In testimony whereof we affix our signatures in presence of two witnesses.

HENRY TREAS.
HARRY L. KINZY.

Witnesses:

GUS HORDIN,
R. W. STELL.