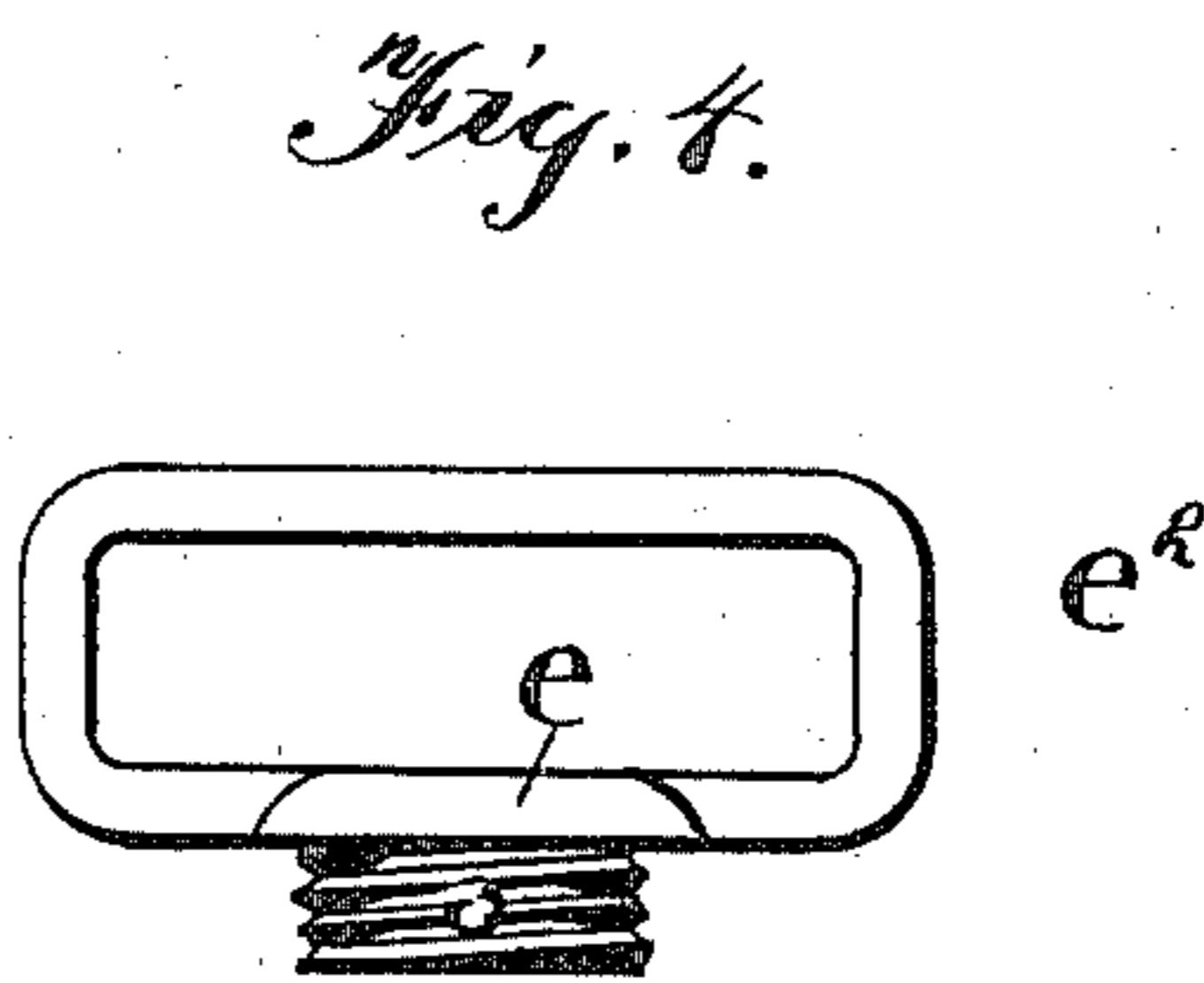
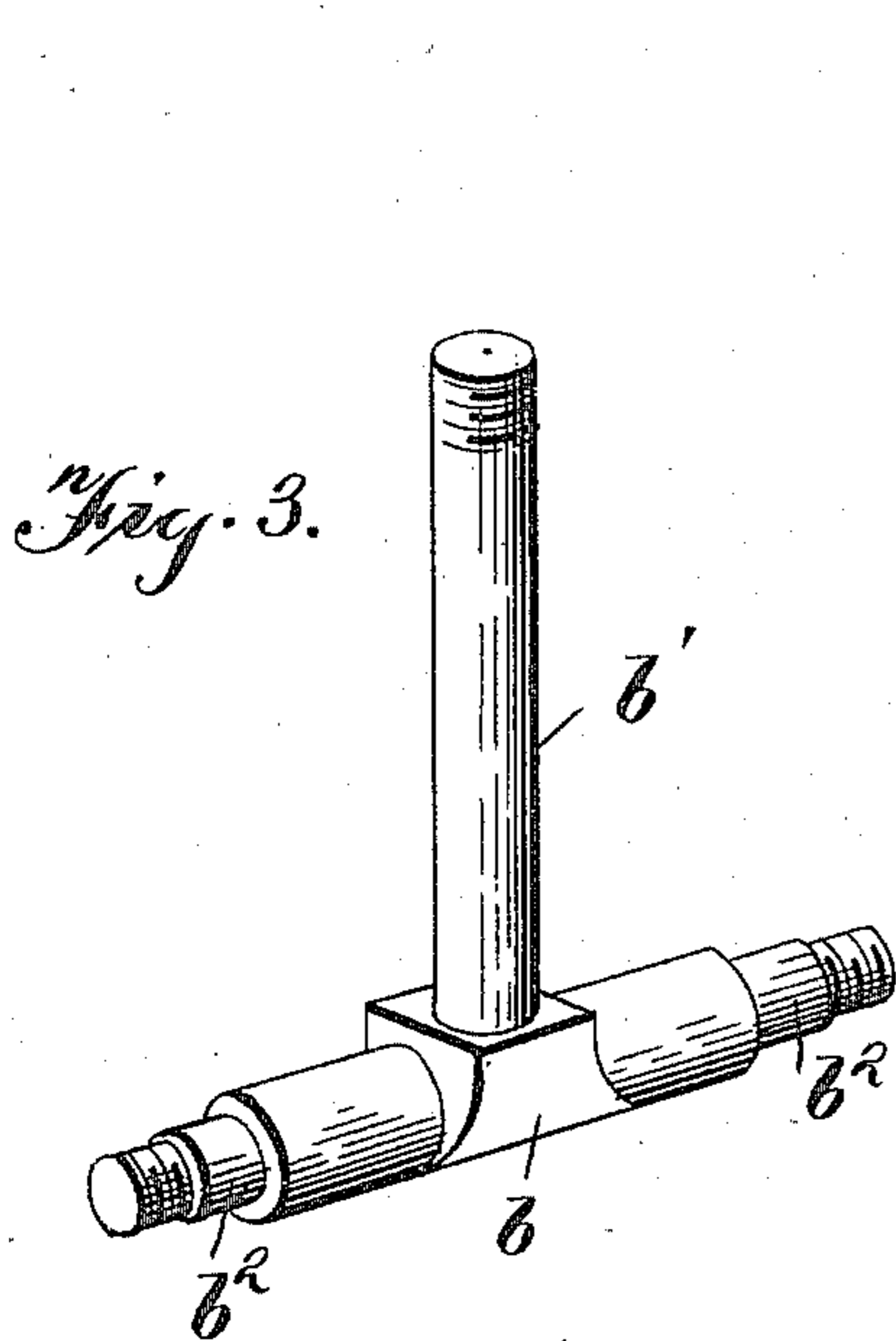
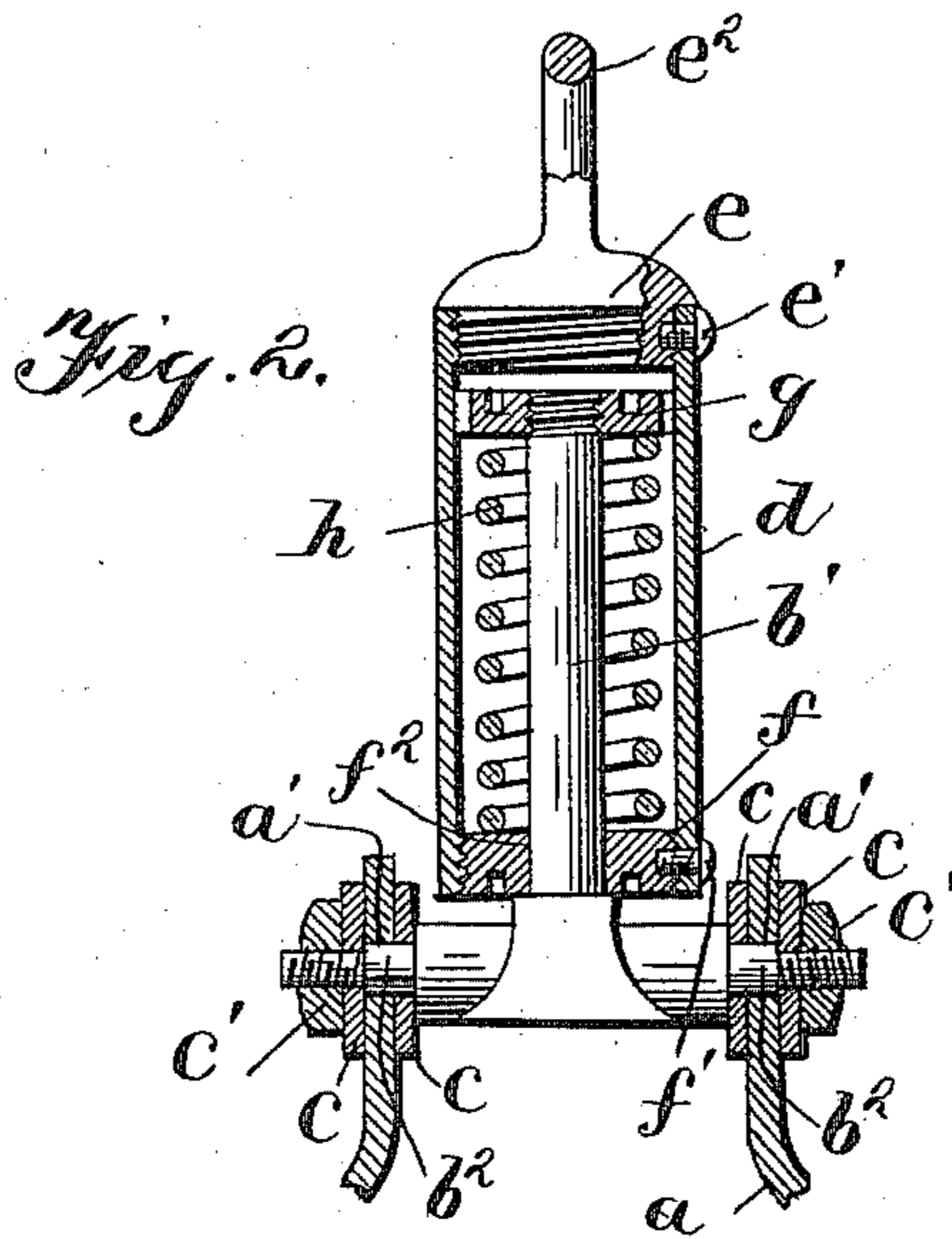
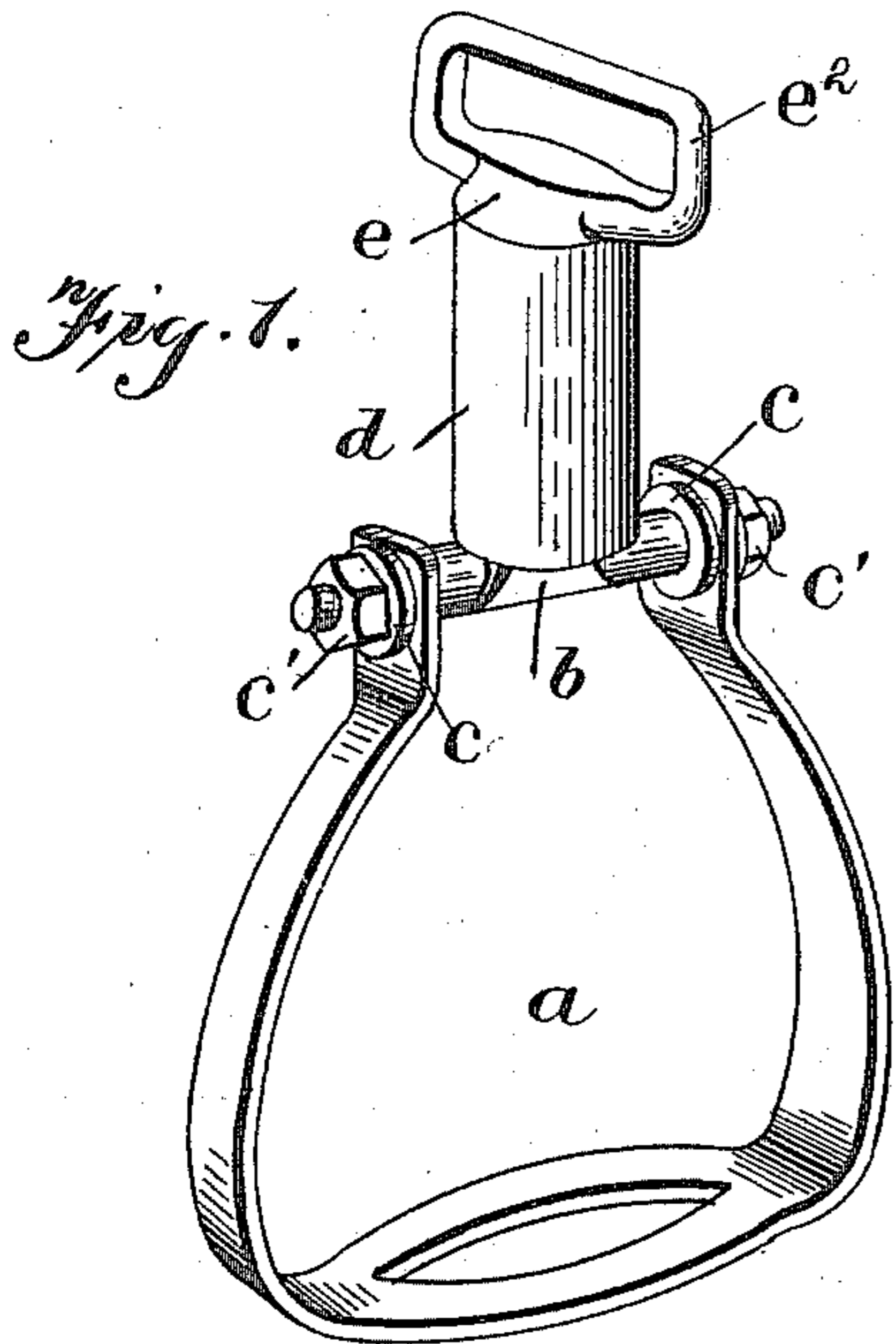


(No Model.)

G. G. VANN.
STIRRUP.

No. 578,956.

Patented Mar. 16, 1897.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE G. VANN, OF GALVESTON, TEXAS.

STIRRUP.

SPECIFICATION forming part of Letters Patent No. 578,956, dated March 16, 1897.

Application filed August 1, 1896. Serial No. 601,368. (No model.)

To all whom it may concern:

Be it known that I, GEORGE G. VANN, a citizen of the United States, residing at Galveston, in the county of Galveston and State of Texas, have invented certain new and useful Improvements in Stirrups; 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.

This invention relates to certain improvements in equestrian stirrups.

The object of the invention is to provide a stirrup having an improved turnable spring-support which will permit the stirrup to turn readily, so that the foot can assume any desired angle toward or from the horse and so that the stirrup will be yieldingly upheld, whereby certain advantages are attained in mounting, particularly when employed in connection with a wild or unmanageable animal.

The invention consists in certain novel features in construction and in combinations and arrangements of parts, as more fully and particularly pointed out and described hereinafter.

Referring to the accompanying drawings, Figure 1 is a perspective view of the improved stirrup. Fig. 2 is a central vertical section through the stirrup-hanger or supporting device. Fig. 3 is a detail perspective of the stirrup-supporting cross-head. Fig. 4 is a detail elevation of the top loop through which the stirrup-sustaining strap (not shown) is passed. Fig. 5 is a detail perspective of the vertically-movable head resting on the spring.

In the drawings, *a* is the stirrup-frame, having the bottom foot-plate or bearing and the upwardly-extending arms, the upper ends of which are formed with transverse alined bearings *a'*.

b is a supporting or connecting cross-head, here shown T-shaped, with the central rigid upwardly-extending slide-rod *b'*. At its ends this cross-head has the reduced journals *b²* removably located within the said bearings *a'* of the stirrup-frame and on which the stirrup swings back and forth or vertically from the upper end of its frame.

The portions of the cross-head projecting

through and beyond the upper ends of the stirrup-frame are reduced and screw-threaded, and washers *c* are arranged on opposite sides of the ends of each arm of the stirrup-frame and against the shoulders formed by the reduced portions of the cross-head, and the parts are confined in proper place by the nuts *c'*. The stirrup-supporting device also comprises the elongated casing *d*, having the base *e* of the rigid loop *e²* screwed into and closing the upper end of the casing and preferably locked in place by screw *e'*. The rigid loop *e²* constitutes the means by which the stirrup is hung or suspended from the stirrup-sustaining strap (not here shown) from the saddle.

The lower end of the casing *d* is closed by the plate or head *f*, preferably screwed into the same, and usually locked in place by the screw *f'*. The lower end of the casing thus closed has the central guide-opening *f²*, through which the rod *b'* extends and in which it slides in its vertical reciprocation or play. This rod extends upwardly longitudinally within the casing and has the head *g* rigid on its upper end and preferably formed to snugly fit and freely slide within the casing, and thus guide and in a measure support the parts in proper relative positions. The rod preferably screws into a central threaded opening in the said head.

h is a coiled expansive spring arranged longitudinally within the casing and around the slide-rod and resting on the lower end of the casing, with the slide-rod head resting on the upper end of and yieldingly upheld by the spring, thereby yieldingly upholding the stirrup and permitting the same to give or yield downwardly under sufficient pressure, which is a feature of great and material advantage in mounting and riding horses, particularly when the animal is inclined to be wild.

The slide-rod and its head are so formed and arranged within the casing as to freely turn independently of the casing, and thus permit free horizontal rocking or turning of the stirrup, which is also a material feature of advantage when mounting and riding under various circumstances.

The sliding head *g*, as specifically shown in Figs. 2 and 5, can be, if desired, formed

with side openings or otherwise to permit free passage of air in the casing as the said head reciprocates therein.

By means of the invention set forth the stirrup can yield vertically, rock or turn horizontally, and swing back and forth or vertically independently of the supporting or sustaining devices.

What I claim is—

- 10 In a stirrup, the combination of the stirrup-frame or foot-piece having bearings in its two separated upper ends, the cross-head between said ends having journals extending through the bearings thereof and provided with se-
- 15 curing means at its outer ends, and formed with a central upwardly-extending rod rigid

therewith, the head rigid on the upper end of said rod, the inclosing casing having the attaching means rigid with its upper end and the closed lower end through which said rod can freely slide, and an expansive coiled spring around said rod and between the head and lower end of the casing so that the rod and its head can freely turn and slide in the casing and are yieldingly upheld by said spring, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE G. VANN.

Witnesses:

M. J. WALEVINSKY,
N. H. SCHNEIDER.