

No. 751,394.

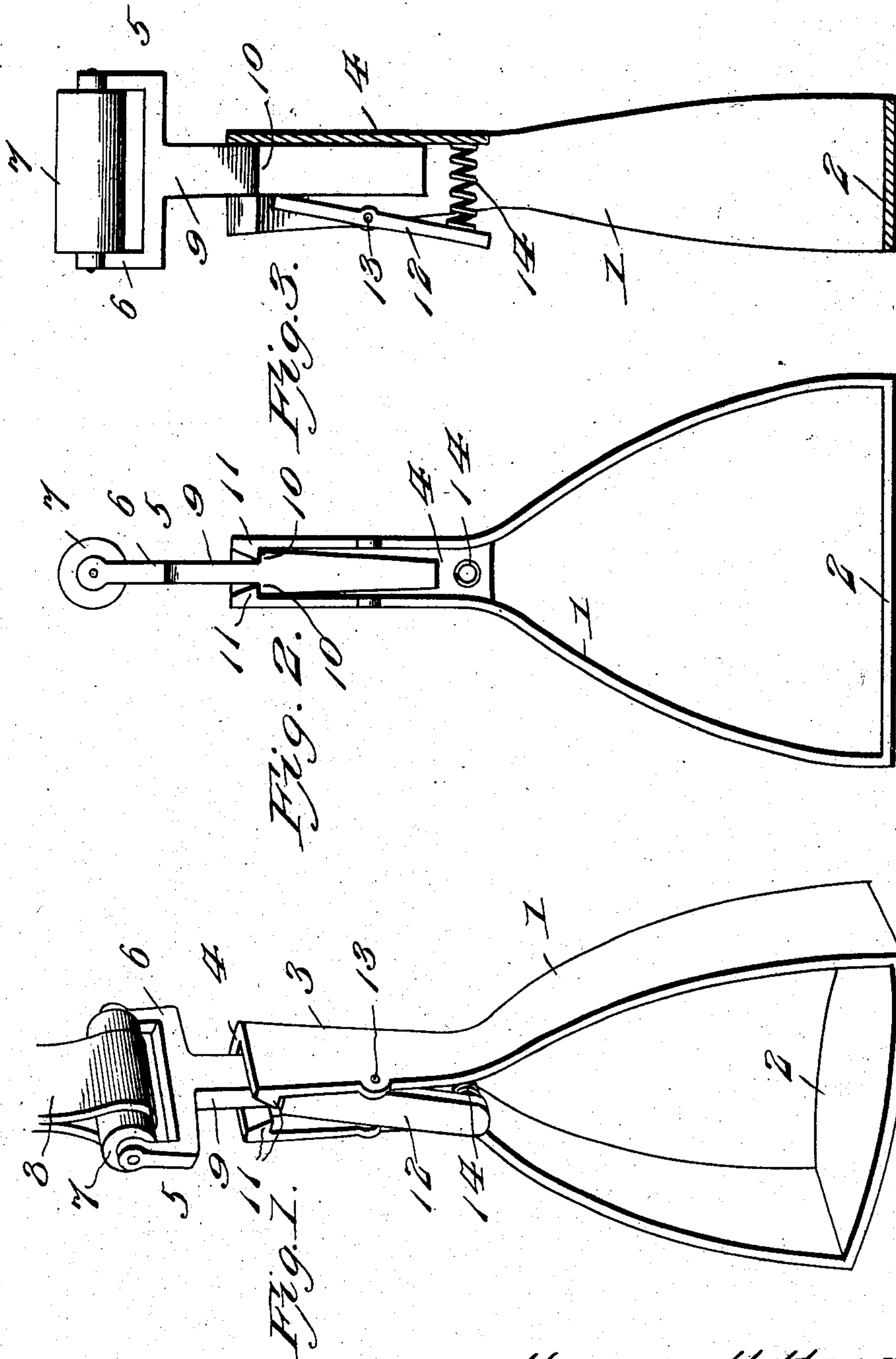
PATENTED FEB. 2, 1904.

H. H. HEERMANN.
SAFETY STIRRUP.

APPLICATION FILED MAY 9, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

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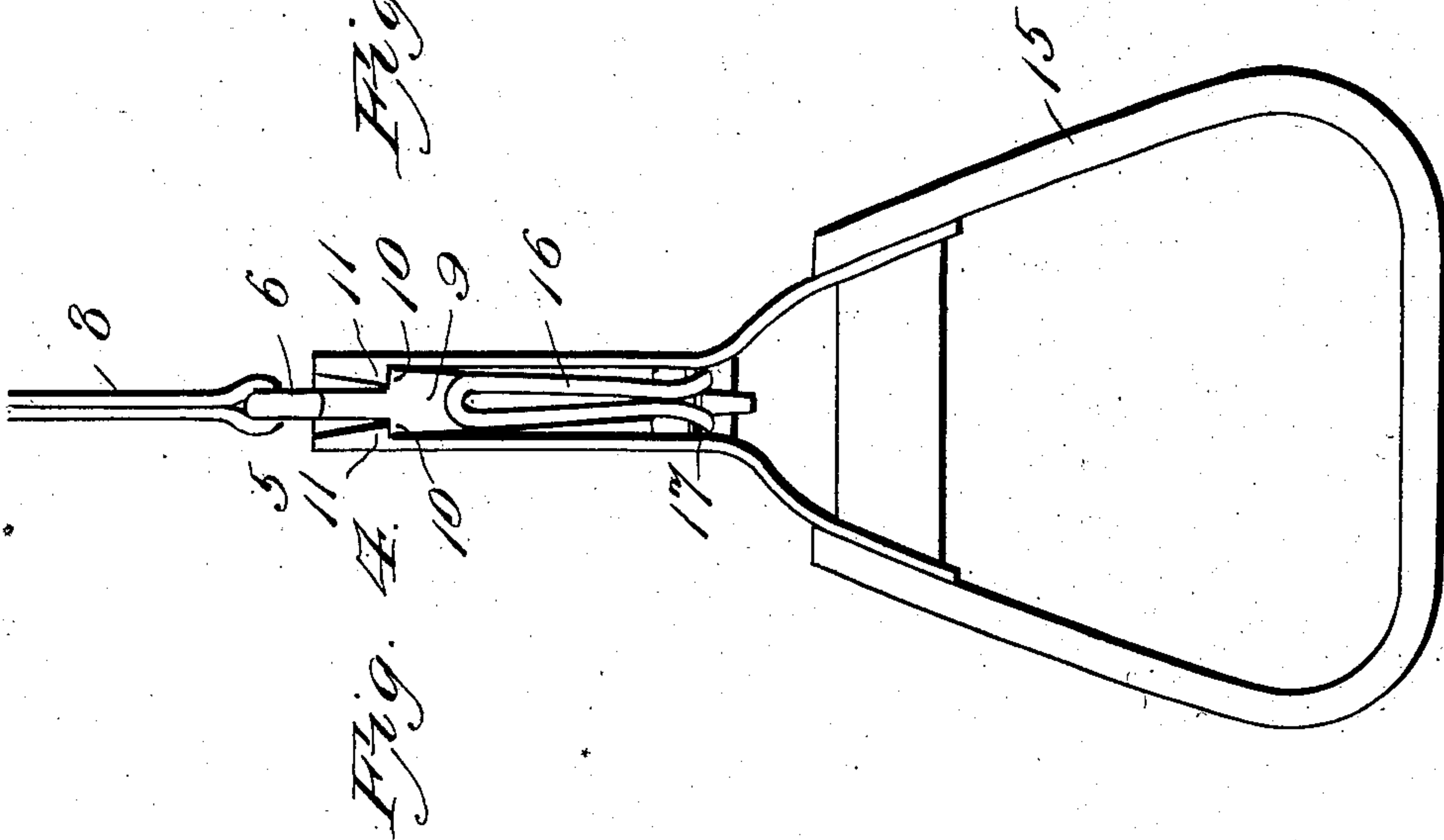
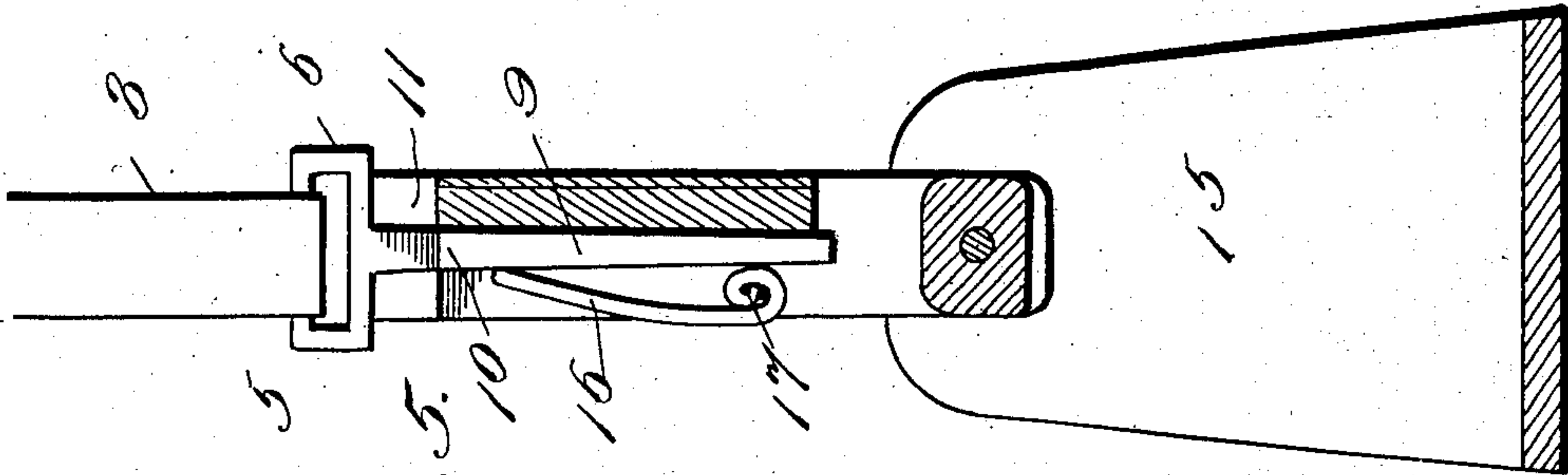
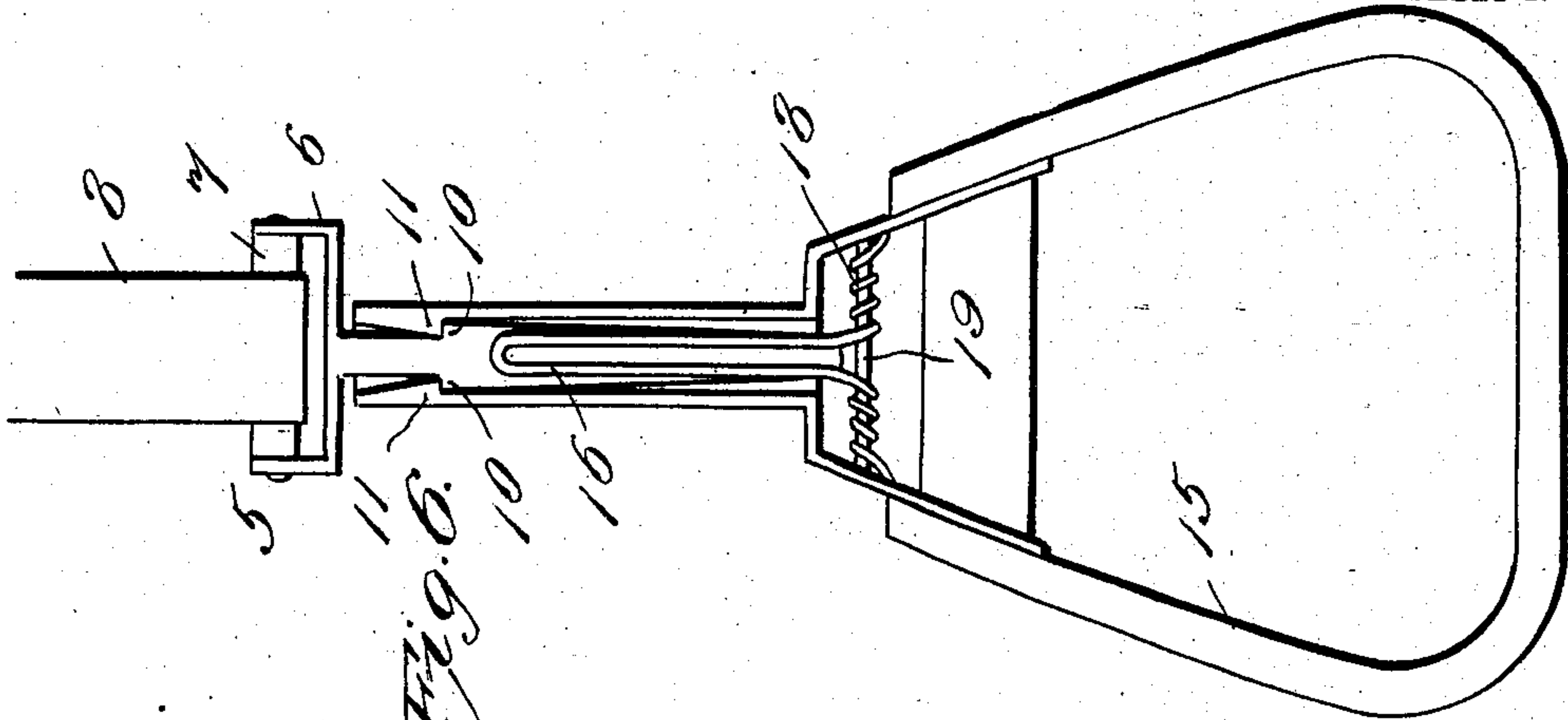
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Witnesses

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UNITED STATES PATENT OFFICE.

HERMAN H. HEERMANN, OF STANTON COUNTY, NEBRASKA.

SAFETY-STIRRUP.

SPECIFICATION forming part of Letters Patent No. 751,394, dated February 2, 1904.

Application filed May 9, 1903. Serial No. 156,428. (No model.)

To all whom it may concern:

Be it known that I, HERMAN H. HEERMANN, a citizen of the United States, residing in the county of Stanton and State of Nebraska, have
 5 invented new and useful Improvements in Safety-Stirrups, of which the following is a specification.

This invention relates to safety-stirrups, and has for its object to provide a riding-stirrup
 10 by means of which the foot of the rider will be automatically and instantly released in the event of the rider being thrown from the horse, thereby obviating danger of the rider being dragged along the ground by reason of
 15 his foot being caught and held by the stirrup.

The stirrup contemplated in this invention is composed of two members, one of which is connected to the suspending-strap and the other of which receives the foot of the rider, and said members are so connected or coupled
 20 together that they will become automatically uncoupled or disconnected when pressure or strain in an unusual direction is brought to bear on one of said members.

With the above general object in view the invention consists in the novel construction, combination, and arrangement of parts, as hereinafter fully described, illustrated, and
 25 claimed.

In the accompanying drawings, Figure 1 is a perspective view of a safety-stirrup constructed in accordance with the present invention. Fig. 2 is a side view of the same, omitting the detent or coupling device. Fig. 3 is
 35 a vertical longitudinal section through the stirrup, showing the parts in their normal positions. Fig. 4 is a rear elevation of a stirrup, showing a modified form of detent. Fig. 5 is a vertical longitudinal section through the
 40 same; and Fig. 6 is a rear elevation of a stirrup, showing a further modification in the form of the detent or device which holds the two members of the stirrup in coupled relation to each other.

Like reference-numerals designate corresponding parts in all figures of the drawings.

Referring to the drawings, 1 designates the foot-loop of a riding-stirrup, the side portions of which are connected by the foot-rest 2, the
 50 upper portions 3 of the side pieces being

brought into substantially parallel relation to each other and connected by a side wall 4, which prevents the spreading apart of portions 3 and forms a chamber adapted to receive the shank of a supporting member which
 55 suspends the foot-loop in applied position.

The supporting member 5 of the stirrup comprises at its upper portion a frame 6, carrying a cross-bar or roller 7, which is received in the looped lower extremity of the supporting or suspending strap 8, leading upward to the saddle. Depending from the frame 6 is a shank 9, which at a suitable point is provided with outwardly-located shoulders 10 of such form and arrangement as to engage beneath a corresponding pair of shoulders or
 60 jaws 11 upon the inner sides and near the top of the chamber of the foot-loop of the stirrup, as best illustrated in Fig. 2. The upper extremities of the portions 3 of the foot-loop
 70 1 are relatively widened, so as to make the shoulders or jaws 11 longer than the shoulders 10 on the shank 9, as best shown in Fig. 3. This is done in order to prevent the too ready uncoupling of the foot-loops from the suspending member by reason of the foot sliding laterally outward off of the suspending member. This is also done to make room for a detent or shank holding device 12, which is pivotally
 75 mounted within the chamber at 13 intermediate its ends, the upper extremity of said detent being held with a yielding pressure against the shank 9 by means of a spring 14, which is interposed between the opposite or lower end of the detent and the rear wall 4, which
 80 connects the side portions 3 of the foot-loop.

By means of the construction above described the foot-loop of the safety-stirrup is normally retained upon the suspending member by reason of the fact that the upper end of the detent 12 is held with a yielding pressure against the shank 9 and the latter is in turn held firmly against the wall 4. When, however, the foot-loop is canted or tilted with relation to the shank 9, which would be caused
 90 by a decided inclination of the instep of the rider's foot and the pressure of the toe against the upper portion of the foot-loop, the shank will overcome the tension of the spring 14 and the shoulders 10 will slide longitudinally
 100

of the shank off of the shoulders 11, allowing the foot-loop to disconnect or uncouple itself from the shank 9, so that while the shank portion of the stirrup remains connected to the supporting-strap 8 the foot-loop of the stirrup is left on the foot of the rider or drops to the ground, releasing the rider and preventing him from being dragged by the animal.

10 In Figs. 1, 2, and 3 an all-metal stirrup is illustrated, while in Figs. 5 and 6 the principle of the present invention is shown applied to an ordinary wooden stirrup or, more properly speaking, a stirrup in which the foot-loop is composed of wood, as shown at 15.

In Figs. 4, 5, and 6 instead of employing a pivotally-mounted and spring-actuated detent 12 resort is had to a detent 16, which consists simply of a spring, one extremity of which is fastened permanently to a cross-bar extending transversely through the chamber, as shown at 17, while the free end of the same bears with a yielding pressure against the shank 9.

25 In Fig. 6 one portion of the spring is coiled, as shown at 18, around a similarly-arranged cross bar or rod 19 at the upper end of the foot-engaging portion of the stirrup, while the free end of said spring bears against the shank 9, as previously described.

Under any of the arrangements described and illustrated, however, the relative tilting or canting of the two members of the stirrup releases any disengagement between the shoulders 10 and 11 and allows the foot-engaging portion of the stirrup to automatically disconnect itself from that member which is carried and supported by the strap 8.

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

1. A safety-stirrup comprising a foot-loop having the upper portions of its side mem-

bers brought into parallel relation and connected by a wall to form a chamber open at its top and having one of its sides entirely open, shoulders arranged in the interior of the chamber, a suspending member having a shank provided with shoulders adapted to engage the first-mentioned shoulders, said foot-loop being adapted to be moved longitudinally of the shank to be disconnected therefrom, a detent pivotally mounted in the chamber, and a spring adapted to engage the lower end of the detent to retain its upper end in engagement with the shank to normally prevent the foot-loop from having a longitudinal movement upon the shank.

2. A safety-stirrup comprising a foot-loop having its upper portion provided with a chamber, shoulders arranged on the interior of the chamber, a suspending member having a shank provided with shoulders adapted to engage the first-mentioned shoulders, a rod arranged transversely across the chamber, and a spring having its lower end connected to the rod to retain its upper end in engagement with the detent.

3. A safety-stirrup comprising a foot-loop having its upper end provided with a chamber, shoulders arranged in the interior of said chamber, a suspending member having a shank provided with shoulders adapted to engage the first-mentioned shoulders, a rod extending transversely across the chamber, and a spring having its lower end coiled about the rod to retain its upper end in engagement with the shank.

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

HERMAN H. HEERMANN.

Witnesses:

FRANK BROEKEMEIER,
EUGENE MOORE.