

No. 869,540.

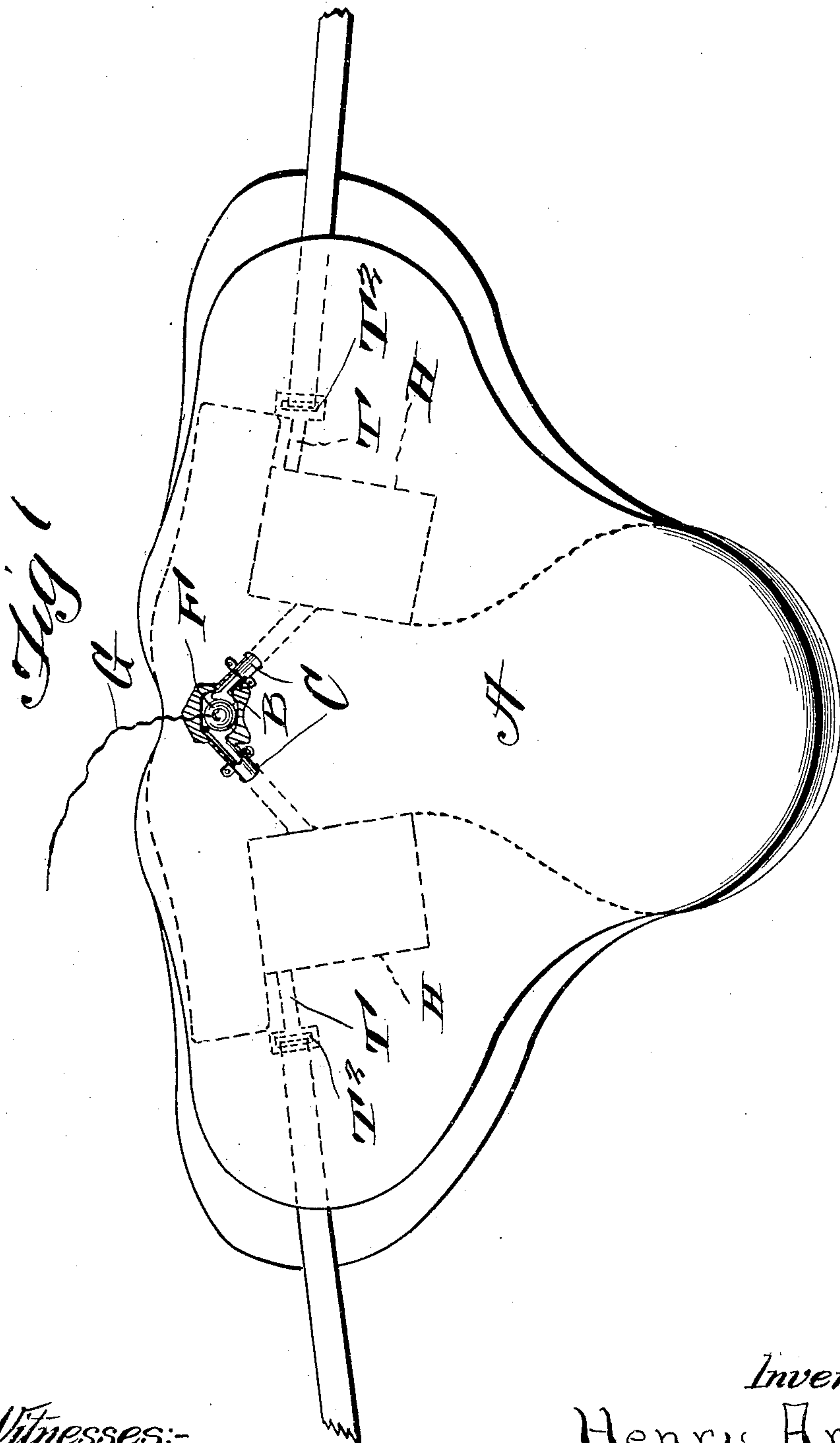
PATENTED OCT. 29, 1907.

H. ARNDT.

SAFETY STIRRUP RELEASE FOR SADDLES.

APPLICATION FILED MAY 22, 1907.

2 SHEETS—SHEET 1.



Witnesses:-

R. A. Brownell
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Henry Arndt
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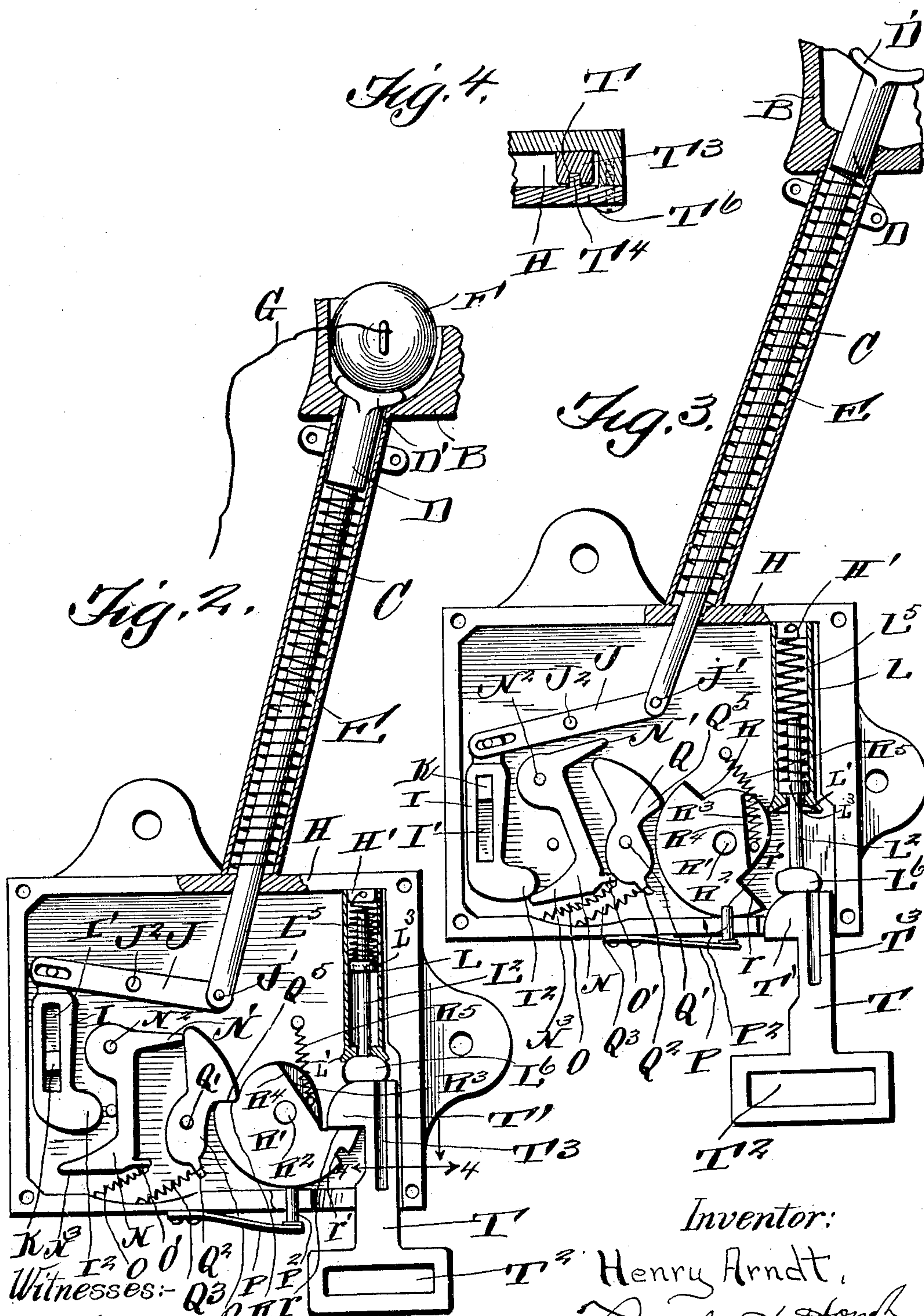
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KX³ N' Q²
Witnesses:- *I² O O P² P²*
R.A. Gosnell.
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Inventor:
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UNITED STATES PATENT OFFICE.

HENRY ARNDT, OF BROOKLYN, NEW YORK.

SAFETY-STIRRUP RELEASE FOR SADDLES.

No. 869,540.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed May 22, 1907. Serial No. 375,148.

To all whom it may concern:

Be it known that I, HENRY ARNDT, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain
5 new and useful Improvements in Safety-Stirrup Release for Saddles; 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 same, reference
10 being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in safety stirrups for saddles and the object of
15 the invention is to produce a simple and efficient device of this character, so arranged that in the event of an accident the stirrups may be detached from the saddle.

The invention consists in various details of construction and combinations and arrangements of parts which
20 will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

25 Figure 1 is a view showing the application of my invention to the saddle. Fig. 2 is an enlarged sectional view through the casing holding the releasing mechanism, showing the parts locked in position. Fig. 3 is a similar view showing the parts released and the stirrup
30 detached from the saddle, and Fig. 4 is a detail view of the cover of the casing showing the guide rib thereon.

Reference now being had to the details of the drawings by letter, A designates a saddle which may be of any construction and provided with a cup-shaped
35 member B, which is adapted to be fastened to the horn of the saddle. Said cup is provided for the purpose of preventing the leather and padding interfering in any way with the operative parts of my invention.

C—C designate hollow tubes, the upper ends of which
40 are fastened to said cup and D designates slid rods having heads D', which are concaved. Each of said rods telescopes within the upper end of a tubing C and is normally held by the spring E at its farthest upward throw. When the two rods are at their farthest throw
45 toward said cup, they form sockets to receive the ball F, which is held thereby under the tension of the spring E.

G designates a cord which is fastened to said ball and is adapted to be attached to the garment of the rider or to any other part of his person, whereby, in
50 the event of the rider being thrown, the ball may be withdrawn from this location between said rods and allow the springs to be released.

The lower ends of said tubes are secured each to a boxing H, each tube registering with an opening in the
55 upper end of the box and through which the stem of the rod D is adapted to pass. The lower end of the

stem of the rod which extends into the casing is pivotally connected to the tilting lever J by means of a pin J', said lever being mounted upon a pivot J² and I designates a sliding bar having an elongated slot I' 60 therein through which a lug K fixed to the casing passes and serves as a guide to the reciprocating movement of said bar I. The free end of said bar I is curved laterally as at I².

N designates a tilting member having an integral 65 finger N' projecting laterally therefrom and is mounted upon a pivot N² carried by the casing. The lower end of said member N has a rearwardly curved projection N³ which is adapted, when the stirrup is locked to the saddle, to be positioned in the path of the curved por- 70 tion I² of the bar I. O designates a spring fastened at one end to the casing and its other end to a lug O' upon said member.

Q designates a pivotal dog mounted upon a pin Q' and having an integral lug Q² to which a spring Q³ is 75 fastened, the other end of which spring is secured to the casing as shown. The purpose of said springs O and Q³ are to hold the members N and Q normally in the positions shown in Fig. 2 of the drawings, in which positions the lateral projecting finger N' of the member 80 N will engage the rear edge of the dog Q. Said dog has a hook portion Q⁵ and is adapted to engage over a shoulder R formed upon the pivotal rocking member R', which latter is mounted upon a pivot R² carried by the casing. Said member R' has a portion of one face 85 thereof recessed away as at R³ forming a shoulder R⁴ in order to allow the member R' to move freely without interference with the spring R⁵, which is fastened at one end to said member R' and its other end to the casing and which spring R⁵ serves to hold the member R' 90 normally in the position shown in Fig. 2 of the drawings. Fixed to the upper surface of the top of the casing is a tube L fastened to a lug H' and its lower end is preferably flaring as at L'.

L² designates a plunger which is mounted within said 95 tubing L and has an integral collar L³ thereon, between which and said lug H' a spring L⁵ is mounted, the purpose of which spring is to normally hold the plunger L² at its farthest downward throw. Said plunger L² has a play in the lower contracted end of the tubing L and 100 has a head L⁶ adapted to normally bear against the stirrup supporting member T, the upper end of which has a hook T' adapted to engage a shoulder r upon the member R'. The lower end of the stirrup supporting member T has a slot T² to receive the stirrup strap and is 105 longitudinally slotted as at T³ to receive the rib T⁴ which is formed in the inner surface of the removable side T⁶ of the casing, which rib is shown in Fig. 4 of the drawings.

P designates a spring, one end of which is fastened 110 to the bottom of the casing and its other end secured to a pin P², which passes through an aperture in the

bottom of the casing and is adapted to engage a recess r' formed in the lower convexed edge of the member R' , the purpose of which pin is to normally hold the member R' so that its shoulder r will be out of the path of the
 5 hook T' .

The operation of my invention is as follows:—The parts being set as shown in Fig. 2 of the drawings and in the event of the rider being thrown from the saddle and having the cord which is connected to the ball attached
 10 to himself or his clothing, the ball will be withdrawn from the socket ends of the rods allowing the latter to act under the tension of the springs bearing against the shouldered portions of said rods. The longitudinal movements of said rods will cause the lever J to tilt
 15 and the bars I to be thrown downward, so that their lower lateral curved ends will contact with the laterally projecting ends of the tilting members N causing the same to tilt upon their pivots and, as said members N tilt, their lower ends will cause the dogs Q also to tilt
 20 in the position shown in Fig. 3 of the drawings. As the dogs Q are withdrawn from the shoulders R upon the rocking members R' , the springs L^5 will cause the plungers L^2 to bear with sufficient force upon the upper ends of the stirrup supporting members T to cause the mem-
 25 bers R' to rock upon their pivots, thus causing the hooks T' to be released from the hooks or shoulder r , thereby releasing the stirrups which are fastened to the loops T^2 . After the member R' has tilted so as to release the hook T' , the pin P' will engage the recess r'
 30 and hold the member R' so that its hooked or shouldered portion r will be out of the path of the hook T' . To connect the stirrup to the apparatus, the stirrup supporting member T^2 is inserted in the opening in the bottom of the casing to receive the same and pushed
 35 up into the plunger L^2 , the pin P' is released from the recess in the member R' and the spring R^2 will cause the member R' to assume the position shown in Fig. 2 of the drawings. The springs O and Q^3 will cause the member N and the dog Q also to return to their normal
 40 positions and, when the ball is pushed down against the rods causing the same to be depressed under the tension of the springs bearing against the same, the ball may be placed in the socket portions and the device reset in readiness to be released in case of emergency
 45 or otherwise.

What I claim to be new is:—

1. A safety stirrup releasing apparatus comprising, in combination with a saddle, casings secured thereto, stirrup supporting members adapted to be held one in each of said
 50 casings, releasing mechanism within the casings, spring-actuated rods connected to the releasing mechanism within the casings, and a member engaging the upper ends of the rods and adapted to normally hold the latter under the tension of the springs bearing against the same, a cord fastened to said member and designed to be fastened to the rider, the stirrup supporting members adapted to be released as said member is withdrawn from between the rods, as set forth.

2. A safety stirrup releasing apparatus comprising, in combination with a saddle, casings secured thereto, stirrup supporting members adapted to be held one in each of said casings, releasing mechanism within the casings, spring-actuated rods connected to the releasing mechanism within the casings, the upper ends of the rods being recessed to
 65 form sockets and a member frictionally engaged and held by said sockets under the tension of the springs acting upon said rods, a cord connected to said member and designed to be fastened to the rider, as set forth.

3. A safety stirrup releasing apparatus comprising, in

combination with a saddle, casings secured thereto, stirrup supporting members adapted to be held one in each of said casings, releasing mechanism within the casings, spring-actuated rods connected to the releasing mechanism within the casings, the upper ends of the rods being recessed to form sockets and a member frictionally engaged and held
 75 by said sockets under the tension of the springs acting upon said rods, a cord connected to said member and designed to be fastened to the rider, tubes connecting said casings with the saddle and through which said rods are adapted to pass, as set forth.

4. A safety stirrup releasing apparatus comprising, in combination with a saddle, casings secured thereto, stirrup supporting members adapted to be held one in each of said casings, releasing mechanism within the casings, spring-actuated rods connected to the releasing mechanism within
 85 the casings, a cup fixed to the horn of the saddle, open-ended tubes connecting said casings with said cup, a rod mounted within each of said tubes and provided at its upper end with a concaved socket portion, springs mounted one within each tube and adapted to normally hold said rod at its farthest upward throw, and a ball adapted to engage and be held by the socket portion of the rods under the tension of said springs, as set forth.

5. A safety stirrup releasing apparatus for saddles comprising casings, each having a spring-pressed plunger mounted therein, a stirrup supporting hook adapted to be actuated by said plunger, a pivotal rocking member having a shoulder engaging and holding the stirrup supporting member against the tension of the spring-pressed plunger, a spring-pressed pivotal dog engaging a shoulder of said
 100 rocking member, a pivotal spring-actuated member engaging said dog, a longitudinal sliding bar having a lateral projection adapted to tilt said spring-actuated member, and spring-pressed rods, a ball adapted to engage sockets formed at the ends of said rods and pivotal link connections between said rods and said sliding bar, as set forth.

6. In a safety stirrup releasing apparatus, in combination with a casing, a spring-pressed plunger mounted therein, a stirrup supporting member mounted within the casing and provided with a hooked end, a rocking member having a shoulder adapted to be engaged by the hook of said stirrup supporting member, a spring-pressed pivotal dog adapted to engage a shoulder on said rocking member, a pivotal spring-actuated member having lateral projections, one of which is adapted to engage said dog, a sliding bar having a slot therein, a lug upon the casing extending through said slot, said bar having a lateral projection adapted to tilt said pivotal spring-actuated member, a pivotal lever connected to said sliding bar and means for tilting said lever, as set forth.

7. A safety stirrup releasing apparatus comprising two complementary casings adapted to be fastened to a saddle, a tube fixed to each casing, a rod mounted in each tube and having its upper end concaved, a cup to which the upper ends of the tubes are fastened, a ball engaging the upper ends of said rods and held thereby, a cord secured to said ball and adapted to be fastened to a rider, a spring-pressed plunger mounted within the casing, a stirrup supporting member having a hooked end and adapted to be engaged by the head of said plunger, said member having a longitudinal slot, a rib upon the cover of the casing adapted to engage said slot, a rocking member mounted within the casing and having a portion of its face cut away, a spring fixed at one end to the casing and its other end to said rocking member, a portion of the latter adapted to engage the hook upon the stirrup supporting member, a spring-pressed pivotal dog engaging a shoulder upon the rocking member, a sliding bar with pivotal lever connections between the same and said rod, said bar having a lateral projection, a pivotal member interposed between the dog and the lateral projection of said bar, as set forth.

8. A safety stirrup releasing apparatus comprising two complementary casings adapted to be fastened to a saddle, a tube fixed to each casing, a rod mounted in each of said tubes, a cup to which the upper ends of the tubes are fastened, a ball engaging the upper ends of said rods and held thereby, a cord secured to said ball and adapted to be fastened to the rider, a spring-pressed plunger mounted within the casing, a stirrup supporting member having a

hooked end and adapted to be engaged by the head of said
plunger, said member having a longitudinal slot, a rib upon
the cover of the casing adapted to engage said slot, a rock
ing member mounted within the casing and having a por-
5 tion of its face cut away, a spring fixed at one end to the
casing and its other end to said rocking member, a portion
of the latter adapted to engage the hook upon the stirrup
supporting member, a spring-pressed pivotal dog engaging
a shoulder upon the rocking member, a sliding bar with
0 pivotal lever connections between the same and said bush-
ing, said bar having a lateral projection, a pivotal member
interposed between the dog and the lateral projection of
said bar, a spring-pressed pin mounted upon the casing and
adapted to engage a recess in said rocking member to hold
the latter out of the path of the stirrup supporting mem- 15
ber, as set forth.

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

HENRY ARNDT.

Witnesses:

FREDRICK PIUS BUSCHMANN,
CHARLES J. HERDT.