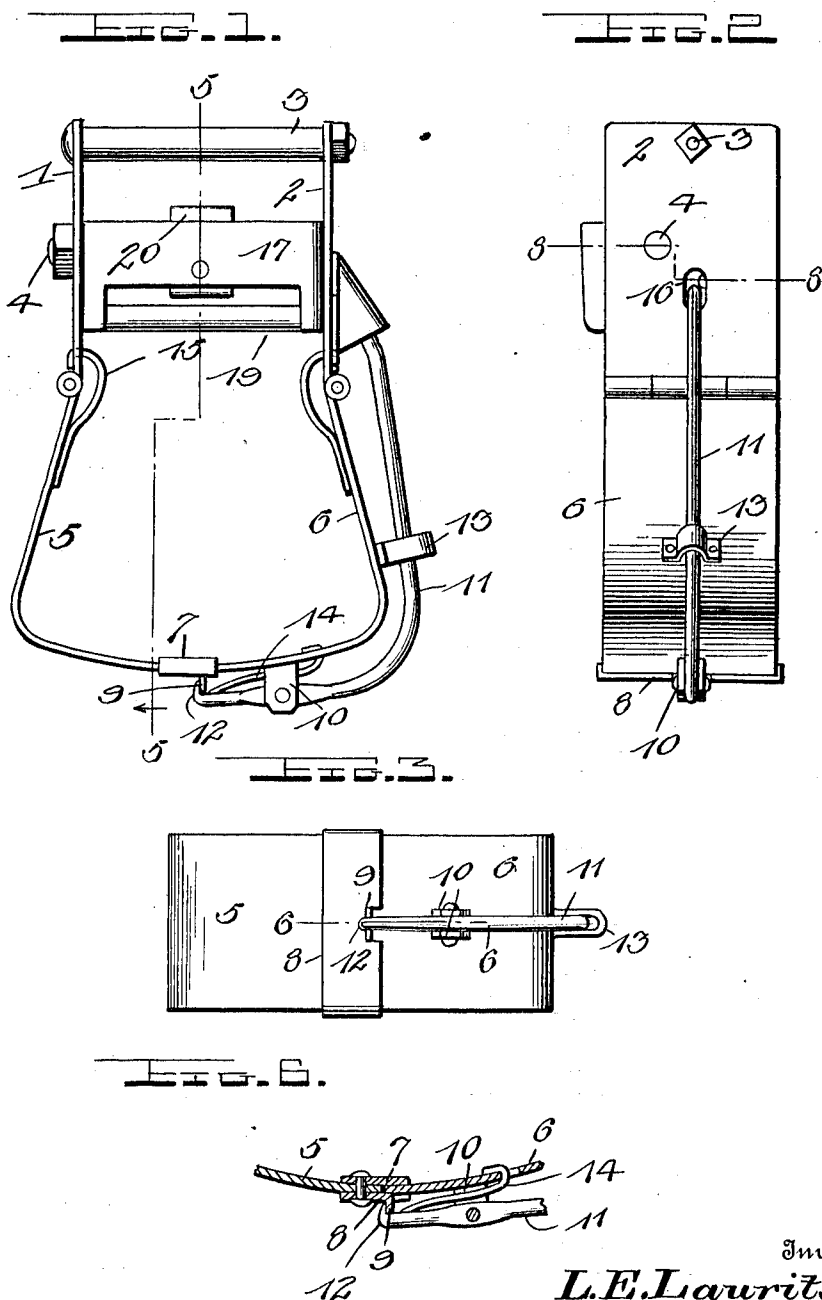


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SAFETY STIRRUP.
APPLICATION FILED JULY 8, 1912.

1,054,217.

Patented Feb. 25, 1913.

2 SHEETS—SHEET 1.



Witnesses

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FIG. 4.

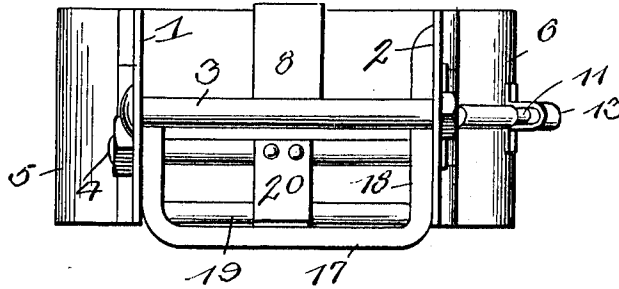


FIG. 5.

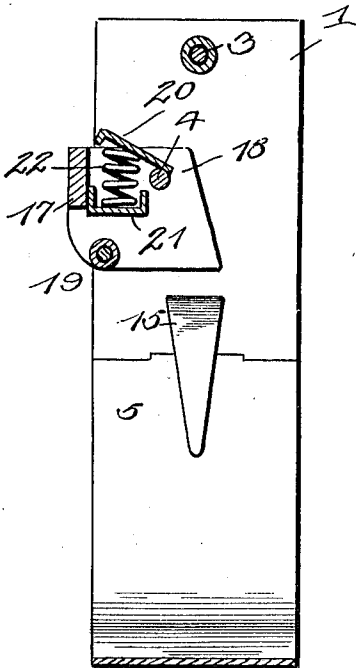


FIG. 7.

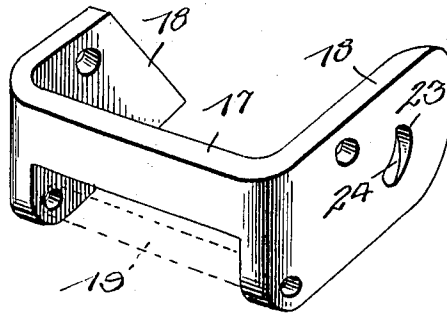
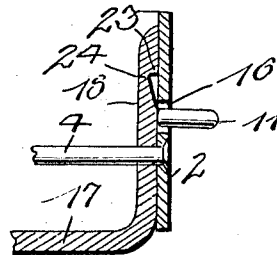


FIG. 8.



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UNITED STATES PATENT OFFICE.

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SAFETY-STIRRUP.

1,054,217.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LAURITS E. LAURITSEN, a citizen of the United States, residing at Moscow, in the county of Latah and State of Idaho, have invented certain new and useful Improvements in Safety-Stirrups, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to new and useful improvements in stirrups and more particularly to the class known as safety stirrups and my object is to provide a device of this character which will readily release the foot of the rider therefrom upon the occasion of said rider being thrown from his mount.

A further object of the invention resides in providing a stirrup, the tread portion of which is adapted to be separated by the action of the toe of the rider as the latter is thrown and a still further object resides in providing an improved tripping mechanism for accomplishing the aforesaid result.

Still another object resides in providing a device which is extremely simple and durable in construction, inexpensive to manufacture and one which will be very efficient and useful in operation.

With these and other objects in view, the invention consists in the novel features of construction, combination and arrangement of parts as will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawings forming a part of this application, Figure 1 is a front elevation of a stirrup. Fig. 2 is a side elevation thereof. Fig. 3 is a bottom plan view of the same. Fig. 4 is a top plan view thereof. Fig. 5 is a vertical section therethrough as seen on line 5-5, Fig. 1. Fig. 6 is a detail section as seen on line 6-6, Fig. 3. Fig. 7 is a perspective view of a portion of the tripping mechanism removed; and Fig. 8 is a section as seen on line 8-8, Fig. 2.

In describing my invention, I shall refer to the drawings in which similar reference characters designate corresponding parts throughout the several views and in which 1 and 2 indicate the side plates connected together and braced by means of the transverse bars or shafts 3 and 4, the former being adapted to have connection with a suspension strap (not shown). These side plates with the transverse connecting bars therefor form a substantial yoke member

and hingedly connected to the lower ends of said plates 1 and 2 are the angular side plates 5 and 6 respectively, which form the body of the stirrup.

The substantially horizontally extending portions of the plates 5 and 6 are adapted to form the tread portion of the stirrup and in order to lock the free ends of the plates 5 and 6 together, the inner and outer plates 7 and 8 are secured to the plate 5 and projected beyond the free end thereof to form a substantial socket. This socket is adapted to receive the free end of the angular plate 6 and the outer plate 8 of said socket, has a portion 9 thereof struck therefrom to form a locking lug or the like. Fulcrumed between a pair of ears 10 on the under face of the horizontally extending portion of the plate 6, is an angular releasing lever 11, the lower free end of which is hooked or bent as shown at 12 to engage the locking lug 9, whereby said plates 5 and 6 may be secured together to retain the stirrup in its operative position, and the opposite arm of said angular lever 11 extends through a guide keeper 13 carried on the outer face of the plate 6 and the free end thereof extends to a point intermediate of the ends of the side plate 2, for a purpose to be hereinafter and more particularly described. Engaged with the plate 6 and extended through the ears 10 is a leaf spring 14, the free end of which is engaged with the lever 11 adjacent its free end and has a tendency to swing said lever on its pivot to dispose the free end thereof to its ineffective position with respect to the lug 9 and also engaged with the side plates 1 and 2 are the additional spring members 15, the free ends of which are bent to engage the inner faces of the plates 5 and 6, the tendency of these latter springs being to force outwardly upon the plates 5 and 6. From this construction, it will be seen that as the releasing lever 11 is disengaged from the lug 9, the springs 15 will force said plates 5 and 6 in opposite directions, to separate the tread portions of the stirrup.

The spring 14 acting in the manner described, will have a tendency to dispose the upper free end of the lever 11 against the face of the side plate 2 and at this particular point, said plate is provided with a slot or opening 16 and I have provided a tripping means for the lever which cooperates with the latter at this particular point. A substantially U-shaped member

17 has the parallel arms 18 thereof pivotally mounted on the transverse bar or shaft 4 connecting said side plates 1 and 2, the outer faces of said arms 18 contacting lightly with the inner faces of said plates and rotatably mounted between said arms below the base portion of this U-shaped member is a roller or the like 19. The transverse shaft or bar 4 has mounted thereon a projection 20 and the base portion of this U-shaped member 17 is also provided with a projection or seat 21, while a coil spring 22 which is disposed between said projections 20 and 21, may be said to suspend the member 17 from the projection 20. In this normal position of this U-member 17, the upper free end of the lever 11 is adapted to contact with the outer face of one arm 18 thereof, which retains said lever in its locking position, but in order to trip said lever, the referred to arm is provided with a slot or channel 23, the rear wall of which is beveled or inclined inwardly from its forward to its rear end, as shown at 24. In the normal position of this member 17, this channel or slot 23 will be disposed immediately adjacent the opening 16, but will be sufficiently spaced therefrom to prevent the lever 11 from entering the same at this time. As the member 17 is swung on its pivot, however, this slot or channel 23 will be brought into registration with the opening 16 and the upper end of said lever will enter the same, in view of the spring 14 acting on the opposite end of said lever. As the lever 11 is swung on its pivot, through this medium the locking end 12 thereof will obviously be disengaged from the lug 9, to allow the plates 5 and 6 to be separated.

In practice, assuming that the device is in operative position, as shown in Fig. 1 of the drawings, it will be seen that the stirrup may be readily applied to a saddle and used as any ordinary stirrup. During the use thereof, should the rider be thrown from his mount, the foot within the stirrup would be obviously tilted so that the toe portion thereof will contact with the roller 19 on the member 17. The contact of the toe portion with this roller 19, will swing the member 17 on its pivot which, from the description of the construction of the device as above given, will trip the lever 11 to allow the tread portion of the stirrup to be separated and thereby release the foot therefrom. The release of the foot from the stirrup, will of course prevent the dismounted rider from being dragged by the animal should he continue running.

From the foregoing it will be seen that I have provided an improved safety stirrup which will positively release the foot of the rider should the latter be thrown from his mount and it will further be seen that

the device is one which is extremely simple and durable in construction, inexpensive to manufacture and one which will be very efficient and useful in operation.

While I have particularly described the elements best adapted to perform the functions set forth, it is obvious that various changes in form, proportion and in the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the principles of the invention.

Having thus described this invention, what I claim is:—

1. A safety stirrup comprising a yoke member, angular arms pivoted to the sides thereof, and adapted for engagement with one another to form the sides and tread portion of the stirrup, a pivoted releasing lever carried on one of said arms and adapted for engagement with the other to lock the same together, and a pivoted member carried between the sides of said yoke member and adapted to cooperate with the upper end of said lever to trip the same.

2. A safety stirrup comprising a yoke member, angular arms pivoted to the sides thereof and adapted for engagement with one another to form the sides and tread portion of the stirrup, a lug carried on the under face of one of said angular arms, an angular releasing lever pivoted on the under face of the other of said arms and adapted for engagement with said lug to lock said arms together, and pivoted means within said yoke member cooperating with the upper end of said lever and adapted for operation by the foot of the rider to trip said lever.

3. A safety stirrup comprising a yoke member having an opening in one side face thereof, angular arms pivoted to the sides of said yoke member and adapted to be engaged with one another to form the sides and tread portion of the stirrup, a locking lug carried on the under face of one of said arms, an angular lever pivoted to the under face of the other of said arms and adapted to engage said lug at the lower end thereof to lock said arms together, the upper end of said lever being adapted to enter the opening in the one side face of said yoke member, spring means in connection with the lower engaging ends of said lever adapted to dispose the same to its ineffective position, and means cooperating with the upper end of said lever and adapted for operation by the foot of a rider to trip said lever.

4. A safety stirrup comprising a yoke member having an opening in one side face thereof, angular arms pivoted to the sides of said yoke member and adapted to be engaged with one another to form the sides and tread portion of the stirrup, a locking

lug carried on the under face of one of said arms, an angular lever pivoted to the under face of the other of said arms and adapted to engage said lug at the lower end thereof
5 to lock said arms together, the upper end of said lever being adapted to enter the opening in the one side face of said yoke member, spring means in connection with the lower engaging ends of said lever adapted to dispose the same to its ineffective position, and a cam member pivotally mounted in said yoke member and adapted to cooperate with the upper end of said lever to trip the same.
10 5. A safety stirrup comprising a yoke member, having an opening in one side face thereof, angular arms pivoted to the sides of said yoke member and adapted to be engaged with one another to form the sides and tread portion of the stirrup, a locking
20 lug carried on the under face of one of said arms, an angular lever pivoted to the under face of the other of said arms and adapted to engage said lug at the lower end thereof to lock said arms together, the upper end 25 of said lever being adapted to enter the opening in the one side face of said yoke member, spring means in connection with the lower engaging ends of said lever adapted to dispose the same to its ineffective position, a pivoted member carried on said yoke member and having portions thereof contacting with the inner faces of the sides thereof, one of said latter portions being provided with a cam slot therein, said slot 35 being adapted to register with the opening in said yoke member to trip said lever, and means to normally retain said pivoted member in a position, whereby the slot therein is out of registration with the opening in 40 said yoke member.

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

LAURITS E. LAURITSEN.

Witnesses:

L. G. PETERSON,
W. LAURITSEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."