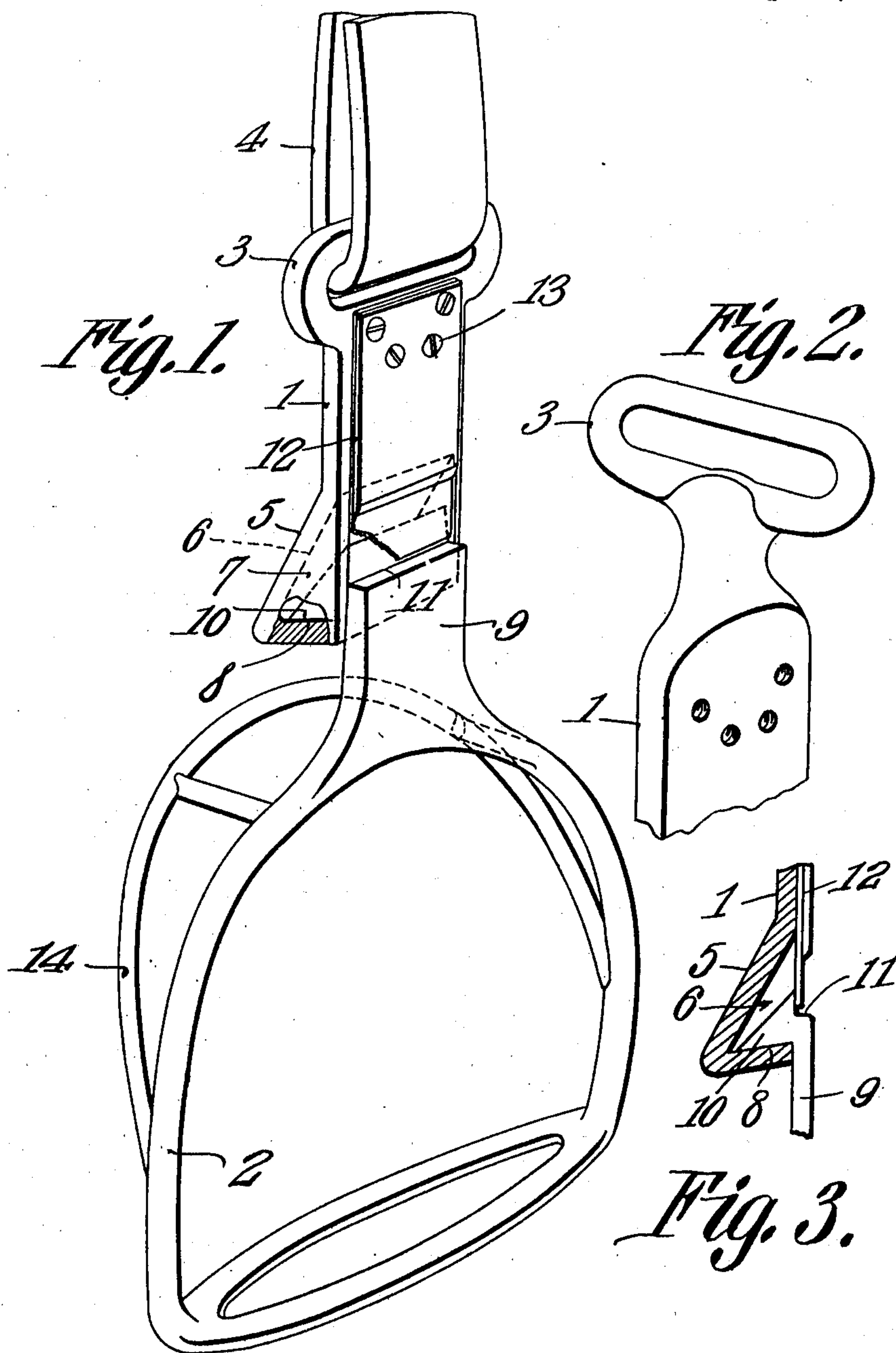


F. M. SWART.  
STIRRUP.

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970,664.

Patented Sept. 20, 1910.



Witnesses  
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# UNITED STATES PATENT OFFICE.

FRED M. SWART, OF MARGARETVILLE, NEW YORK.

## STIRRUP.

970,664.

Specification of Letters Patent. Patented Sept. 20, 1910.

Application filed April 24, 1909. Serial No. 492,032.

*To all whom it may concern:*

Be it known that I, FRED M. SWART, a citizen of the United States, residing at Margaretville, in the county of Delaware and State of New York, have invented a new and useful Stirrup, of which the following is a specification.

This invention has reference to improvements in stirrups for use in connection with saddles and is designed especially to provide a safety stirrup which becomes automatically disconnected from the stirrup strap should the rider's foot become caught in the stirrup, thus preventing a dragging of a rider on the ground should the rider accidentally fall from the saddle and the foot become locked in the stirrup. For this purpose the stirrup is made in two parts with the foot loop held to the strap end by means yieldable to pressure exerted by a tilting of the foot end when the foot becomes entangled in the stirrup and the rider has fallen from the saddle.

The invention will be best understood from a consideration of the following detail description taken in connection with the accompanying drawings forming a part of this specification in which drawings,

Figure 1 is a perspective view of stirrup constructed in accordance with the present invention, and Fig. 2 is a perspective view of the strap end of a slightly modified form. Fig. 3 is a longitudinal vertical section through the junction of the strap and foot sections of the stirrup.

Referring to the drawings there is shown a stirrup formed of two members 1 and 2, the member 1 being the strap member and the member 2 the foot receiving member. The strap member is formed at one end with a flat eye 3 for the reception of the strap 4 depending from the saddle, the latter however not being shown in the drawings. The strap member 1 is shown as wider than thick and in Fig. 1 the eye 3 extends in the direction of the width of the member 1 while in Fig. 2 the eye is transverse to the width of the member 1. At the end of the member 1 remote from the eye 3 the said member is provided with a lateral off-set 5 in which there is formed a prismatic socket 6 open on one face of the member 1 and provided with side members 7. The socket 6 is preferably triangular in cross section while the lower wall 8 slants downward, in

the normal position of the parts, from the open end toward the closed end.

The foot receiving member 2 of the stirrup is of the ordinary English type and at the upper portion of the loop of the stirrup there is formed a hanger member 9 having projecting laterally from its free end a triangular lug 10 adapted to enter the triangular recess 6 in the strap member 1. The lug or boss 10 extends above the hanger 9 and to one side thereof to form a shoulder 11, which when the lug is seated in the recess 6 is flush with the corresponding face of the strap member 1.

Fast on the face of the strap member 1 at which the recess 6 opens is secured a spring 12 either in the form of a single leaf or if found expedient this spring may be made of two or more leaves superposed, and the spring is secured at the end adjacent to the strap loop 3 by screws 13 which may be four in number as shown or greater or less in number as desired, or these screws may be replaced by rivets. The spring 12 extends downward in front of the open end of the recess 6 so that when the lug 10 is seated in the recess the lower free end of the spring will engage against the shoulder 11 and thus maintain the lug in the recess against displacement except under the conditions for which the stirrup is designed. Formed on or secured to the foot receiving loop of the foot member of the stirrup is a skeleton arch 14 the purpose of which is to prevent the foot of the rider from rising sufficiently far up in the stirrup under certain conditions to engage the strap member.

Under ordinary conditions the direction of strain due to the presence of the foot of the rider in the stirrup is substantially longitudinal to the stirrup hanger 9 and strap member 1 and the lug 10 will therefore remain in the socket 6 without liability of escape therefrom which liability if present is opposed by the spring 12. Suppose however that the rider should fall from the saddle and the foot should pass through the stirrup and become locked therein then the foot member will tend to assume a position approaching the horizontal. Under these conditions the foot member will turn upon an axis coinciding with the front edge of the lower wall 8 of the lateral member 5 thus bringing the shoulder 11 forcibly against the lower end of the spring 12 which



latter will then yield until the upper edge of the shoulder 11 passes beneath the spring 12 and thus the foot member becomes loosened from the strap member and is readily disengaged therefrom by the same force which tends to move the foot member toward the horizontal position. Thus if the foot of the rider becomes locked in the foot member 2 of the stirrup then the foot member will unlock from the strap member almost instantly and the dragging of the rider because of the locking of the foot in the stirrup is avoided.

What is claimed is:—

1. A stirrup comprising a strap member formed at the end remote from that engaged by the strap with a prismatic pocket having the bottom inclined and open at the side coincident with the upper portion of the inclined bottom, a foot receiving member formed with a hanger having a prismatic lug or projection adapted to the pocket in the strap member and supported by the bottom of the pocket, and a spring partially extending over the open side of the pocket and normally maintaining the lug in said pocket but yieldable to an abnormally directed force.

2. A stirrup comprising a strap member formed at the end remote from that engaged by the strap with a prismatic pocket having the bottom inclined and the side coincident with the upper portion of the inclined bottom open, a foot receiving member formed

with a hanger having a laterally offset prismatic lug or projection adapted to the pocket in the strap member and normally housed therein with one face flush with the open side of the pocket, and a spring partly extending over the open side of the pocket and normally maintaining the lug in said pocket but yieldable to an abnormally directed force.

3. A stirrup comprising a strap member formed at the end remote from that engaged by the strap with a pocket projecting away from one face of the strap member and having an open side coincident with the said face of the strap member, a foot receiving member formed with a hanger having a lug or projection at the upper end and wholly to one side of said hanger and adapted to be entirely housed within the pocket with the hanger to the side of the said strap member remote from that containing the pocket, and a spring on the face of the strap member engaged by the hanger and partly extending over the open side of the pocket and normally engaging the lug housed in the said pocket, said spring being yieldable to an abnormally directed force.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

FRED M. SWART.

Witnesses:

H. D. SWART,  
ANDREW C. FENTON.