

UNITED STATES PATENT OFFICE.

WILLIAM B. GOODWIN, OF COLUMBUS, OHIO.

SAFETY-STIRRUP.

No. 889,222.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM B. GOODWIN, citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Safety-Stirrups, of which the following is a specification.

My invention relates to new and useful improvements in safety stirrups.

10 The object of the invention is to provide a safety stirrup comprising separable members which when assembled gives the stirrup the appearance of being formed of integral parts.

Another feature resides in the provision of 15 a stirrup composed of two members, one fitting within the other and means for holding the said members against unintentional displacement, but arranged to permit a separation of the members when the inner member 20 is rocked on the outer member.

A still further feature lies in the positioning of the holding means whereby the latter are concealed and a stirrup of the ordinary appearance produced.

25 Finally the object of the invention is to provide a device of the character described that will be strong, durable and efficient and simple and comparatively inexpensive to construct and also one in which the several 30 parts will not be liable to get out of working order.

With the above and other objects in view, the invention consists of the novel details of construction and operation, a preferable embodiment of which is described in the specification and illustrated in the accompanying drawings, wherein:

Figure 1 is an elevation of my improved stirrup, a portion being broken away to show 40 the holding means, Fig. 2 is a vertical sectional view taken on the line *a—a* of Fig. 1, a portion being broken away to show the holding means, Fig. 3 is a horizontal cross-sectional view taken on the line *x—x* of Fig. 1, 45 Fig. 4 is a vertical sectional view taken on the line *y—y* of Fig. 1, Fig. 5 is an enlarged cross-section of one of the legs of the stirrup, and Fig. 6 is an enlarged plan view of one of the hanger hooks, showing the leg of the hanger 50 in cross-section.

In the drawings the numeral 1 designates an inner or stirrup member, while 2 indicates an outer member or hanger. These members are formed and shaped to give the appearance of an ordinary stirrup when assembled.

The hanger is provided at its upper central portion with the usual strap loop 3, while at its lower ends inwardly directed and oppositely disposed, hooks 4 are formed. These hooks are provided at their free ends with 60 upwardly projecting curved lugs 5, which latter engage in correspondingly shaped recesses 6 formed in the bottom of the usual stirrup step 7. This step is formed integral with the inner member 1 and is slightly 65 broader than the ordinary step, giving an increased tread for the purpose hereinafter described. Again referring to the lugs 5, it is apparent that if the same were not provided, the lower extremities of the hanger 2 would 70 have a tendency to spread, causing the inner member to drop out undesirably.

For holding the members together, I embed in the inner surfaces, strips of soft material 8, such as rubber, leather or other suitable material. These strips extend, in the 75 present instance, from the hooks 4 up to the curved portion of the hanger and lies substantially flush with the inner surfaces of the hanger which adjacent to the strips are rough- 80 ened or serrated as indicated at 9 in the drawings. The adjacent surfaces of the inner member 1 are likewise roughened or serrated as indicated at 10, the said latter surfaces interlocking with the serrations 9 and 85 biting into the soft strips 8, thus locking or holding the members together. It is to be noted that the serrations have been slightly exaggerated in the drawings for the purpose of illustration and that in practice they should 90 be comparatively fine, so as to hold under normal conditions but to permit a ready separation of the members when the inner member is rocked on the hooks of the hanger. As an additional means for holding the mem- 95 bers together, I insert a key 11 between the members at their upper central portions. This key, being arranged internally, is concealed and is formed of a suitable material such as soft metal, so as to break under pres- 100 sure exerted transversely.

The operation is as follows: Under normal riding conditions where the pressure of the rider's foot is exerted directly downward on the step 7, owing to the flexible connections with the saddle, the members remain 105 in contact. However should the rider be thrown from the saddle and his foot catch in the stirrup, the inner member 1 will be wrenched or swung from the hanger 2, thus 110

preventing injury to the rider as his foot is released and the liability of being dragged by the horse is obviated. This action takes place in the following manner: When the rider is thrown, his heel and toe are brought to bear with considerable pressure upon the edge of the step 7 and the upper curved portion of the inner member 1 respectively. This pressure is sufficient to break the key 11 and rock or swing the inner member on the hooks 4 and the lugs 5 which latter are curved for this purpose. This swinging action is sufficient to break the contact between the serrated surfaces of the members and the strips 8, so that the inner member is virtually torn from the hanger and comes out of the stirrup with the rider's foot, releasing him and obviating any injury except that occasioned by the fall. Of course it is to be understood that the distance between the hooks 4 is sufficient to permit the rider's ankle to pass freely. As a further precaution, the hanger 2 is made of spring metal so as to give under pressure and also to facilitate the separation of the members.

It has been pointed out as one of the ob-

jects of this invention to provide a safety stirrup having the appearance of the ordinary stirrup, which is formed of integral parts. Many riders object to using a stirrup having the appearance of being provided with "safety" attachments. The stirrup herein described is made to resemble, and in the form of what is known as the "English" riding stirrup. This feature alone enhances the value of the stirrup.

What I claim, is:

1. In a safety stirrup, two members arranged to be separated and having contacting surfaces, and frictional fastening means formed of a different material arranged between the members.

2. In a safety stirrup, a hanger, a stirrup member fitting in the hanger, and a locking key of a soft material arranged between the members.

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

WILLIAM B. GOODWIN.

Witnesses:

JAMES O. JOHNSON,
M. B. SCHLEY.