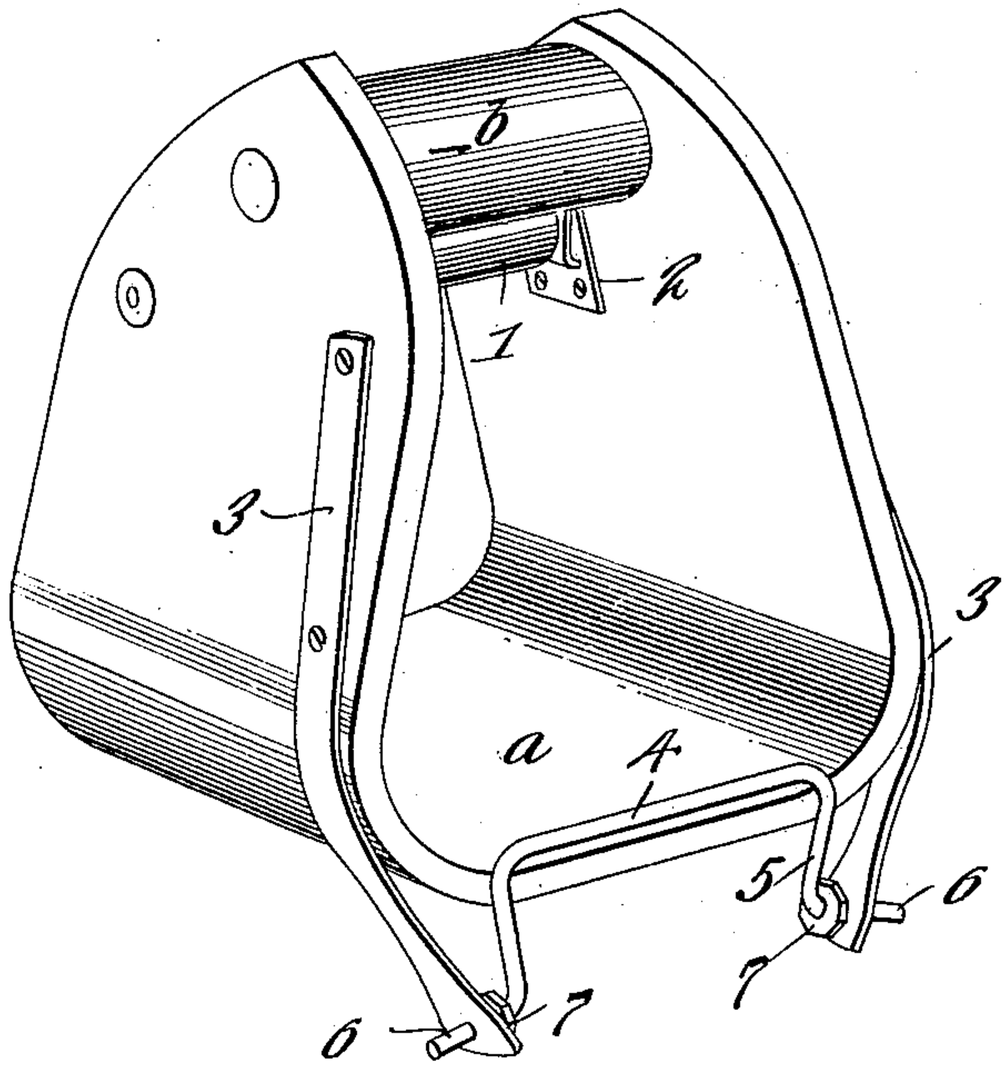
J. HARMON.

STIRRUP.

APPLICATION FILED MAY 1, 1909.

945,524. Patented Jan. 4, 1910.

Fig. 1.



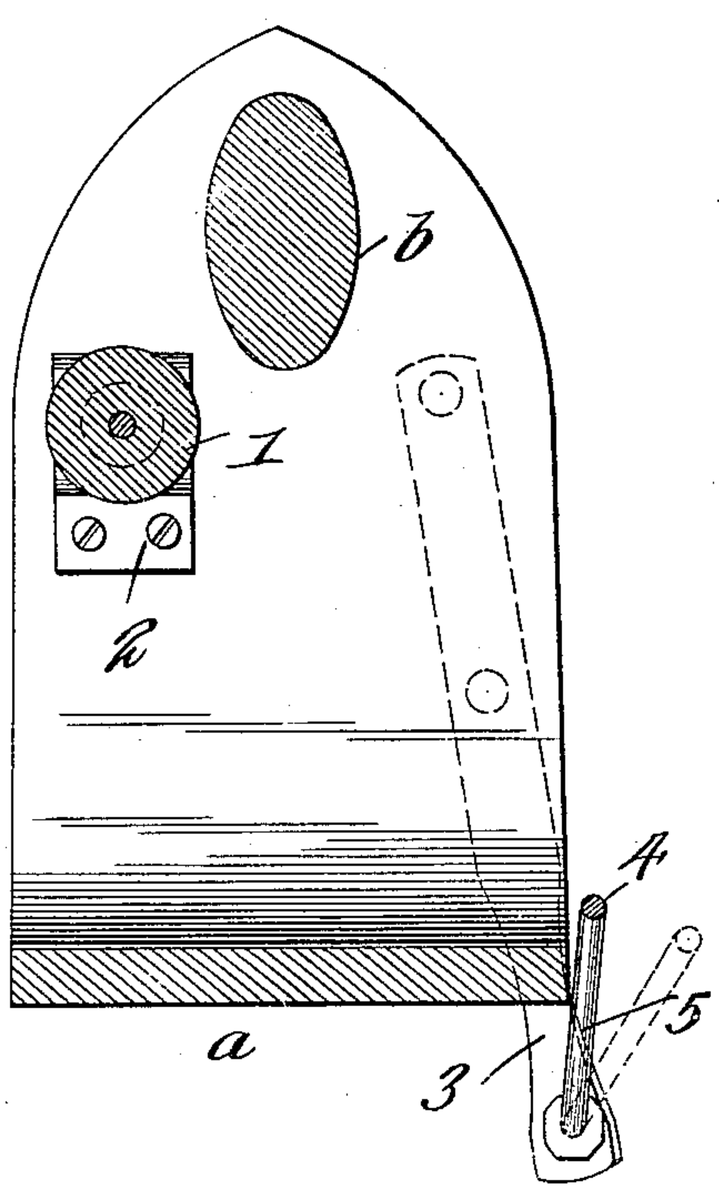


Fig. 2.

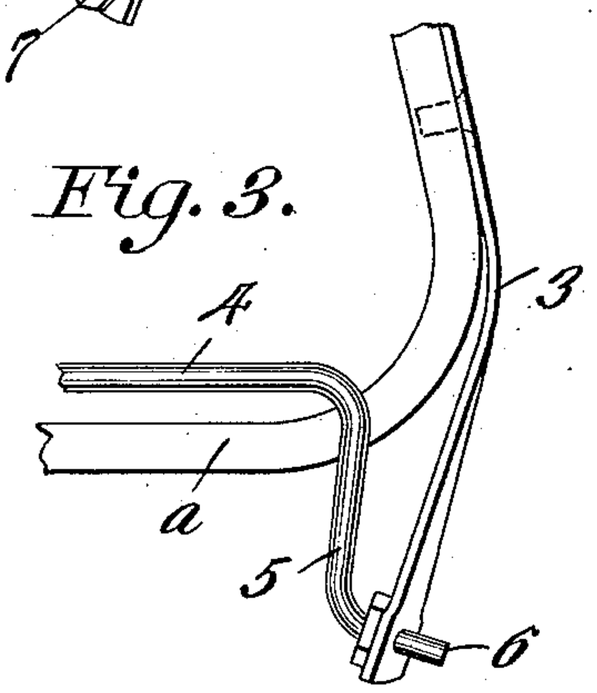


Fig. 3.

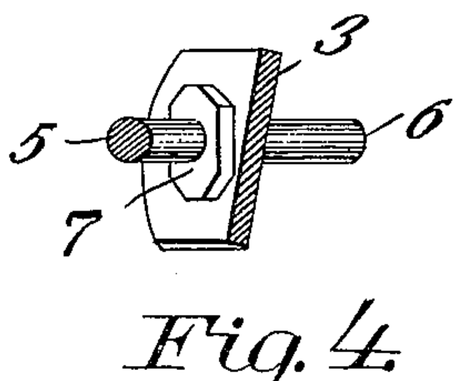


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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STIRRUP.

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To all whom it may concern:

Be it known that I, JOHN HARMON, a citizen of the United States, residing at Okey, in the county of Lawrence and State of Ohio, have invented new and useful Improvements in Stirrups, of which the following is a specification.

This invention is an improved safety stirrup having means for freeing the foot in the event that the rider falls or is thrown from his horse so as to prevent the rider from being dragged and injured and the said invention consists in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a perspective view of a safety stirrup constructed in accordance with my invention. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a partial elevation of one side of the stirrup. Fig. 4 is a detail perspective view of the crank rest and of one of the supporting spring hangers therefor.

For the purposes of this specification, an ordinary stirrup is here shown provided with my improved safety devices.

In accordance with my invention, I provide a revoluble roller 1 which is pivotally mounted at its ends as at 2, between the sides of the stirrup *a* at a point near the front side of the stirrup and somewhat below the bar *b* thereof. On the sides of the stirrup are secured the upper portions of a pair of downwardly and rearwardly inclining spring hangers 3, the lower ends of which extend below the rear side of the stirrup and are inclined laterally so that their opposing faces converge rearwardly of the stirrup. A tread 4 is disposed at the rear of the stirrup and is provided at its ends with downwardly extending crank arms 5 presenting oppositely extending spindles or journals 6 which have their bearings in openings in the lower end portions of said spring hangers and are provided with cams 7 which are fast thereto and bear against the inner surfaces of the spring hangers so that the tension of said spring hangers on said cams causes the latter to normally maintain the tread in the elevated position shown in full lines in Fig. 2, immediately to the rear of the stirrup and at a point above the bottom thereof.

When the stirrup is in use the foot of the rider bears on the tread 4 as well as on the bottom of the stirrup. Should the rider fall, the pull on the stirrup draws the roller 1 forwardly over the toe of his shoe and the tread 4 is moved rearwardly against the tension of the spring hangers as indicated in dotted lines in Fig. 2 so as to free the foot from the stirrup. The spring hangers and cams then immediately coact to restore the tread to its initial normal position, owing to the spring effect produced by the action of the hangers 3, due to the twist of the lower portions of the hangers as shown in Fig. 3, and the action of the cams 7 bearing upon the lower portions of the hangers more strongly upon one side than upon the other.

What is claimed is:—

A stirrup having spring hanger elements extending downwardly and rearwardly from the sides thereof, said spring hanger elements having rearwardly converging opposing faces, a tread having pivot elements and having their bearings in said hanger elements and cams on said tread coacting with said spring hanger elements to normally maintain the tread in elevated position at the rear of the stirrup and above the bottom thereof.

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

JOHN HARMON.

Witnesses:
T. H. EAKMAN,
JOHN F. ELLIS.