(No Model.)

C. H. ALLEN.

STIRRUP.

No. 342,162. Patented May 18, 1886.

Fig. 1.

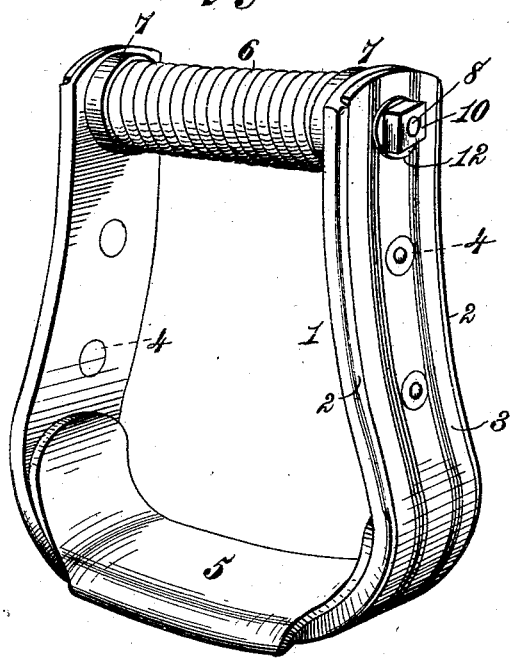


Fig. 2.

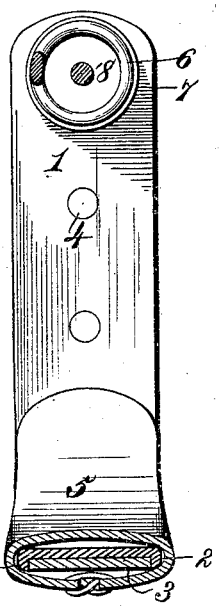


Fig. 3.

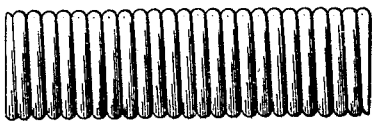


Fig. 4.

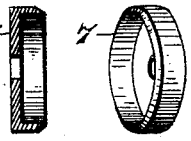
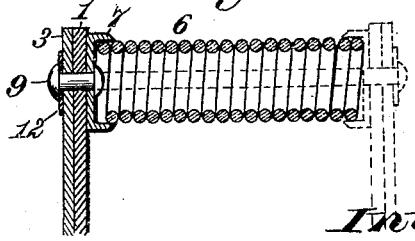


Fig. 5.



Witnesses.
Robt Everett.
J. A. Rutherford

Inventor.
Cotton H. Allen.
By James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

COTTON H. ALLEN, OF ST. LOUIS, MISSOURI.

STIRRUP.

SPECIFICATION forming part of Letters Patent No. 342,162, dated May 18, 1836.

Application filed September 21, 1885. Serial No. 177,707. (No model.)

To all whom it may concern:

Be it known that I, COTTON H. ALLEN, a citizen of the United States, residing at St. Louis, in the county of St. Louis and State of Missouri, have invented new and useful Improvements in Stirrups, of which the following is a specification.

Heretofore a stirrup-iron has been made with laterally-flanged side bars and loops at each side of the apex of said iron, a stirrup-leather encircling the iron between the flanges of the side bars and extending through the loops aforesaid, for the purpose of supporting the stirrup at bottom, sides, and top. Stirrups have also been made with a body-frame of wood without flanges, and having a mounting which consists of a metallic band covering the outer face of the frame and riveted thereto. They have also been provided with a leather covering stitched over an iron frame or body, and in some instances have been made wholly of leather, with the exception of a metal bottom stiffening-plate and an upper transverse rod of metal for connecting the sides of the stirrup and supporting a roller-block composed of removable leather disks, the number of which can be varied to adjust the length of the roller-block, and consequent width of the stirrup, according to the breadth of the stirrup-supporting strap.

My invention differs from those above referred to in consisting of a stirrup for riding-saddles composed of a flanged body or frame rolled from bar metal, and provided with an exterior ornamental covering of leather or other material riveted thereto on each side, said frame forming the bottom and sides of the stirrup, and being connected at the top by an elastic roller-block consisting of a closely-coiled spiral spring supported by means of a cup-shaped disk-bearing at each end, whereby the stirrup has a neat ornamental finish, and is rendered sufficiently elastic to take up wear at the bearings of the roller-block.

The invention is illustrated in the annexed drawings, in which Figure 1 is a perspective view of my improved riding-stirrup. Fig. 2 is a sectional view of the same. Fig. 3 is a view of the spirally-coiled roller-block. Fig. 4 represents the disk-bearings for said roller-block, and Fig. 5 illustrates the connection of the stirrup-frame and disks when riveted.

Referring to these drawings, the numeral 1 designates the stirrup body or frame. This frame is made from a strip or bar of metal rolled to the requisite width and thickness in such a manner as to form flanges 2 on the opposite side edges. The flanged metallic bar or strip is then cut into proper lengths, the ends of each piece being slightly rounded, as shown, and these pieces are bent to the required shape for forming a stirrup-iron with the flanges 2 on the outer side.

The flanged metallic stirrup-body 1 has an exterior ornamental covering, 3, consisting of a strip of leather or other suitable material capable of ornamentation. This covering-strip 3 is extended around the metallic body 1 between its flanges 2, and is secured to the stirrup-body by rivets 4, or other suitable means, two rivets on each side being preferred, as shown.

If desired, a leather foot-pad, 5, may be laced to the stirrup, in the ordinary manner, after the ornamental strip 3 has been attached.

By flanging the edges of the metallic stirrup-body, as shown, and fitting the ornamental covering-strip 3 between said flanged edges 2, the covering-strip will be protected from injury and prevented from curling upward. The covering-strip 3 can be made of various materials—such as leather, wood, rubber, or of a metal differing in kind or quality from that of which the body of the stirrup is composed. In making this strip 3 it is preferable to employ some durable material capable of ornamentation without great expense.

The upper end of the stirrup is provided with a roller-block consisting of a closely-coiled spiral spring, 6, having a bearing at each end in a metallic cup-shaped disk, 7, on the inner side of the stirrup-body. The opposite sides of the stirrup-body, at its upper end, may be connected, as shown in Fig. 1, by a transverse bolt, 8, having a head, 9, at one end, and secured by a nut, 10, on its opposite threaded end. This bolt will pass through the spirally-coiled roller-block 6, and through its cup-shaped disk-bearings 7, one of which disks has a circular opening for the passage of the cylindrical portion or stem of the bolt, while the other disk has a square opening for receiving the squared portion of the bolt next to its head. The bolt 8 thus serves to connect

the opposite sides of the stirrup-body and afford a support and means of attachment for the disk-bearings of the spring roller-block. If desired, however, the bolt 8 may be dispensed with, in which case the cup-shaped disk 7 will be securely riveted to the stirrup-body, as shown in Fig. 5. When arranged in this manner, the metallic stirrup body or frame will be made of such stiffness as to enable the attached disk-bearing 7 to firmly support the spring roller-block, the cup-shaped structure of said disks serving to retain the ends of the roller-block and prevent displacement thereof under the strain of use. As the bolt 8 affords additional security, however, I prefer to employ it as a support for the bearing-disk 7 and connection for the opposite sides of the stirrup.

On each end of the bolt 8, at the outer side of the stirrup, is a washer, 12, one placed beneath the head of the bolt and one beneath its securing-nut. These washers rest against the ornamental covering-strip 3, through which the bolt 8 also passes. Instead of providing the headed bolt with a nut, it may be upset at its end after being put in place, thus securely riveting the parts, as shown by dotted lines in Fig. 5.

It will be observed that the roller-block 6, being composed of a closely-coiled spiral spring supported in cup-shaped bearings at each end, affords an elastic point of attachment for the stirrup-supporting strap, thereby contributing to the comfort of the rider, and obviating disagreeable rattling or creaking sounds common with some stirrups. This spring roller-block will, by its own elasticity, take up any wear of the parts. The rolled-metal stirrup-frame with flanged edges affords a firm support for the ornamental covering-strip riveted thereto, while the flanges protect said strip from wear and injury by contact with the rider's foot.

What I claim as my invention is—

1. A stirrup consisting of the rolled-metal frame having at each edge an outwardly-projecting flange, an exterior ornamented covering-strip riveted to the frame, with its edges abutting against the outwardly-projecting flanges thereof, and a closely-coiled spring roller-block having its ends connected with the ends of said stirrup-frame, substantially as described.

2. The combination, with a stirrup-frame, of a roller-block composed of a closely-coiled spiral spring and end supports for said spring, substantially as described.

3. The combination, with a stirrup-frame, of a roller-block composed of a closely-coiled spiral spring and cup-shaped disks attached to the upper ends of the frame and supporting the ends of the spring, substantially as described.

4. The combination, with a stirrup-frame, of a roller-block composed of a closely-coiled spiral spring, cup-shaped disk-bearings for the ends of said spring, a headed screw-bolt passed through said stirrup-frame, disks, and spring, and a nut for securing and adjusting said parts, substantially as described.

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

COTTON H. ALLEN.

Witnesses:
JOHN ALLING,
SIMEON H. CRANE.