

(Model.)

C. C. PHILBROOK.  
STIRRUP FOR SADDLES.

No. 295,423.

Patented Mar. 18, 1884.

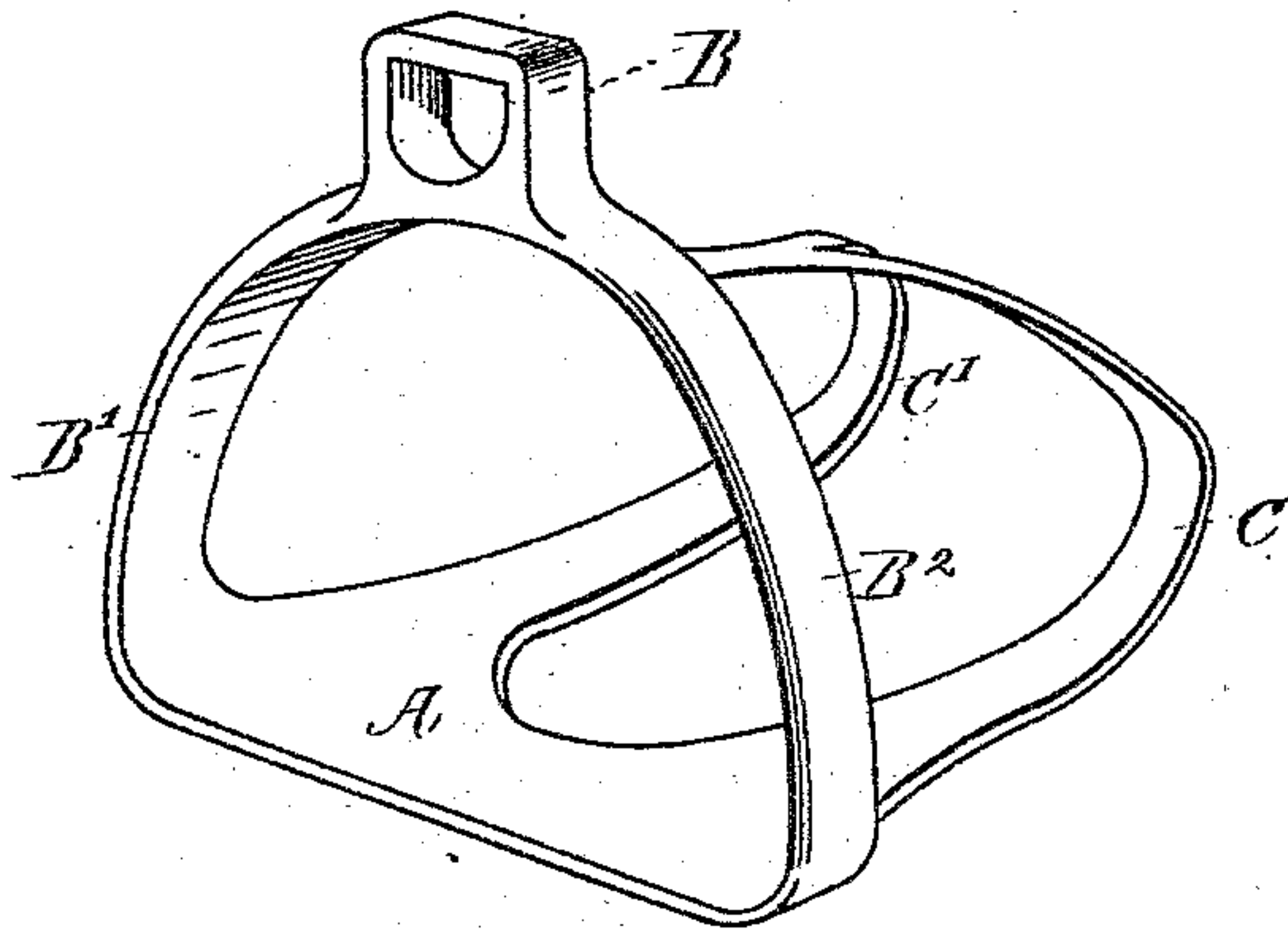


FIG. 1 -

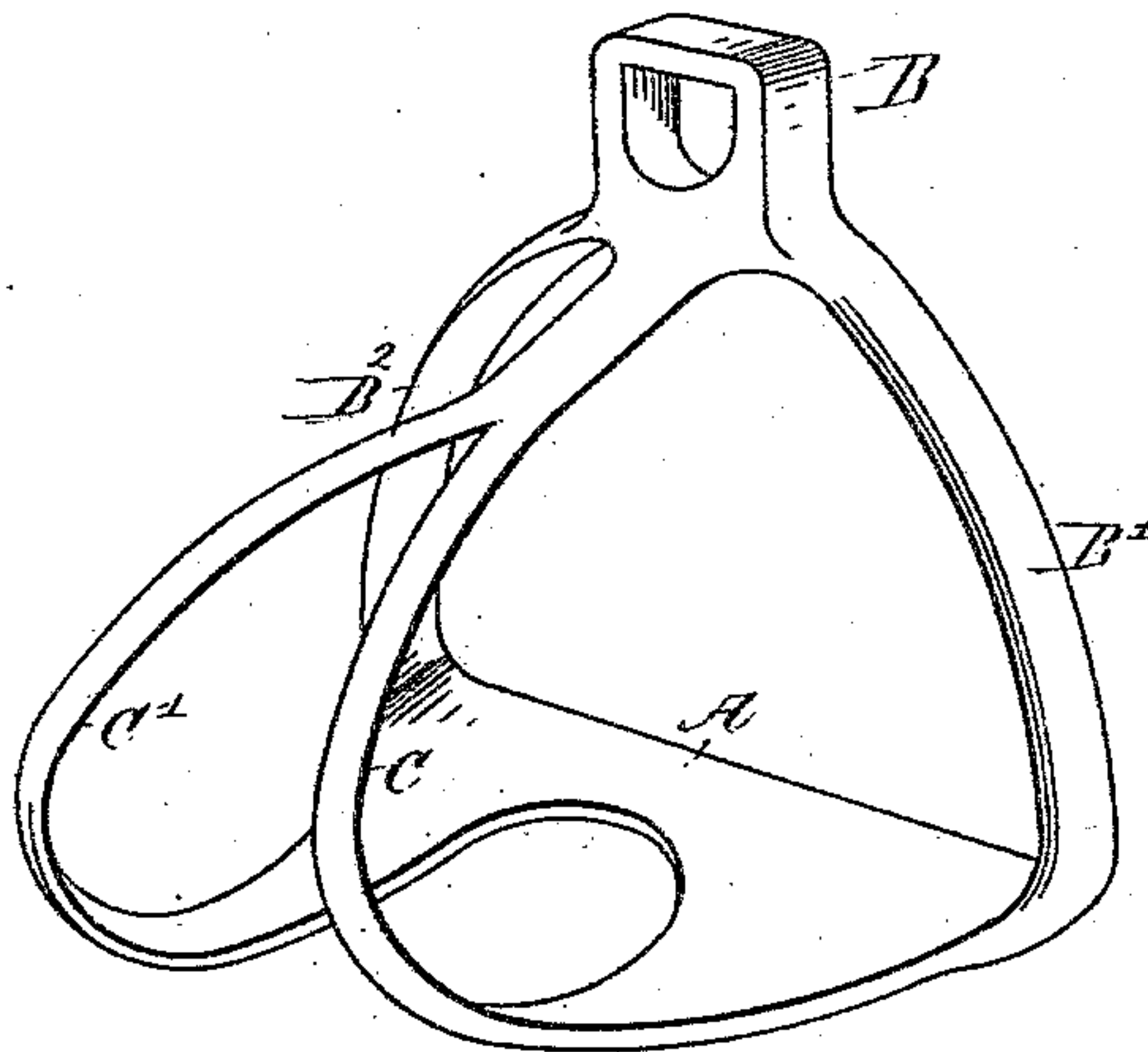


FIG. 2 -

WITNESSES

Frank H. Parker  
Chas. Spaulding.

INVENTOR

Charles C. Philbrook



# UNITED STATES PATENT OFFICE.

CHARLES C. PHILBROOK, OF BOSTON, MASSACHUSETTS.

## STIRRUP FOR SADDLES.

SPECIFICATION forming part of Letters Patent No. 295,423, dated March 18, 1884.

Application filed May 23, 1883. (Model.)

*To all whom it may concern:*

Be it known that I, CHARLES C. PHILBROOK, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain  
5 new and useful Improvements in Stirrups for Saddles, of which the following is a specification.

This invention relates to metallic stirrups. Stirrups are of two general sorts—those with  
10 guards or toe-pieces, which prevent the insertion of the foot too far, and “open” stirrups. All stirrups, whether open or with toe-guards, have two parts in common—the “sole-plate” and the “bail;” and also a third part for sus-  
15 pending the stirrup, sole-plate down, which in metallic stirrups is usually an eye perforated in the top bend of the bail, or attached to it. Hooded or toe-guard stirrups are preferred by some people, because, in case  
20 the rider is thrown, the foot generally disengages more readily than from an open stirrup; and many people dislike the appearance of a stirrup with its sole-plate carried under the hollow of the foot, although the comfort of  
25 this position of the foot in the stirrup is generally acknowledged.

Hitherto no metallic stirrup having toe-guards and made in a single piece without rivets has come upon the market, and no  
30 such stirrup with toe-guards has been made of cast metal.

My invention relates to a stirrup having toe-guards, sole-plate, suspension-bail, and strap-eye, so shaped and modeled that it may  
35 be cast in a single piece in an ordinary two-part mold.

In the drawings, Figure 1 is a perspective from the rear end, and Fig. 2 is a perspective from the toe end.

40 Like letters indicate like parts in both figures.

A is the sole-plate, B is the strap-eye, B' B<sup>2</sup> are the branches of the suspension-bail, and C C' are the toe-guards. The inner surfaces  
45 of the sole-plate A, branches B' B<sup>2</sup>, and toe-guards C C' all converge toward an imaginary point at or near the curve of the toe-guards, which bend over the toe of the rider's foot, or are transverse or inclined to it, so as to  
50 make “draft-planes” for the molder. The

outer surfaces of the sole-plate, branches, and toe-guards all converge toward a similar imaginary point adjacent to the other, but outside of it. The rear presenting surfaces are transverse to the first-named planes, either at  
55 right or acute angles, and the front presenting surfaces are transverse to the second-named planes in a substantially similar way. Thus the stirrup is formed with the interior and rear surfaces as draft-planes for drawing in  
60 one direction only, and with exterior and front surfaces as draft-planes for drawing in the opposite direction.

To start the molding operation a smooth plug or core is placed in the interior of the  
65 pattern, fitting the interior draft-planes, and having an external surface, which unites them by flowing curves, which are draft-planes for the same direction as the draft-planes of the exterior. If the interior of the eye B is to be  
70 larger in front, its interior draft-planes may be toward the front. In this case the eye B would not be plugged in starting the molding. If the draft-planes of the interior of the eye B  
75 are to draw to the rear, the eye B should be plugged at the beginning. It is probably indifferent in which way of the two above suggested the draft-planes of the interior of the eye point. The pattern being placed on the  
80 plug or core described, the cope-frame is put round it and the sand sprinkled and rammed, as usual. It is then lifted off, the plug of the cavity of the stirrup pulled, and, if any, the plug of the eye B also, the parting sand scattered, and the other part of the mold placed,  
85 filled, rammed, and the like, the operation being thus, after the formation of the cope, continued in the usual way of molding in two-part molds.

It will be seen that the novelty of this stir-  
90 rup is in the formation of its interior and back surfaces as drawing-planes from one direction, and of its exterior and front surfaces as drawing-planes from the opposite di-  
95 rection, whereby it is adapted for casting in a two-part mold, and also has imparted to it a graceful and peculiar appearance, as well as a character of solidity in the suspension-bail and foot-plate, and of lightness in the toe-  
100 guards, specially desirable in this form of

stirrup, and giving a better hang, when the rider is not mounted, than is usual in stirrups with curved toes, because it is less toe-heavy than is usual.

5 I claim as my invention and desire to secure by Letters Patent—

An improved stirrup having suspension-bail B' B<sup>2</sup>, sole-plate A, strap-eye B, and toe-guards C C', of a single casting, substantially  
10 as described, in which all the interior and

back surfaces are formed and fashioned as draft-planes from one direction, and all the exterior and front surfaces are formed and fashioned as draft-planes from the opposite direction, for the purpose set forth.

CHARLES C. PHILBROOK.

Witnesses:

FRANK G. PARKER,  
CHAS. SPAULDING.