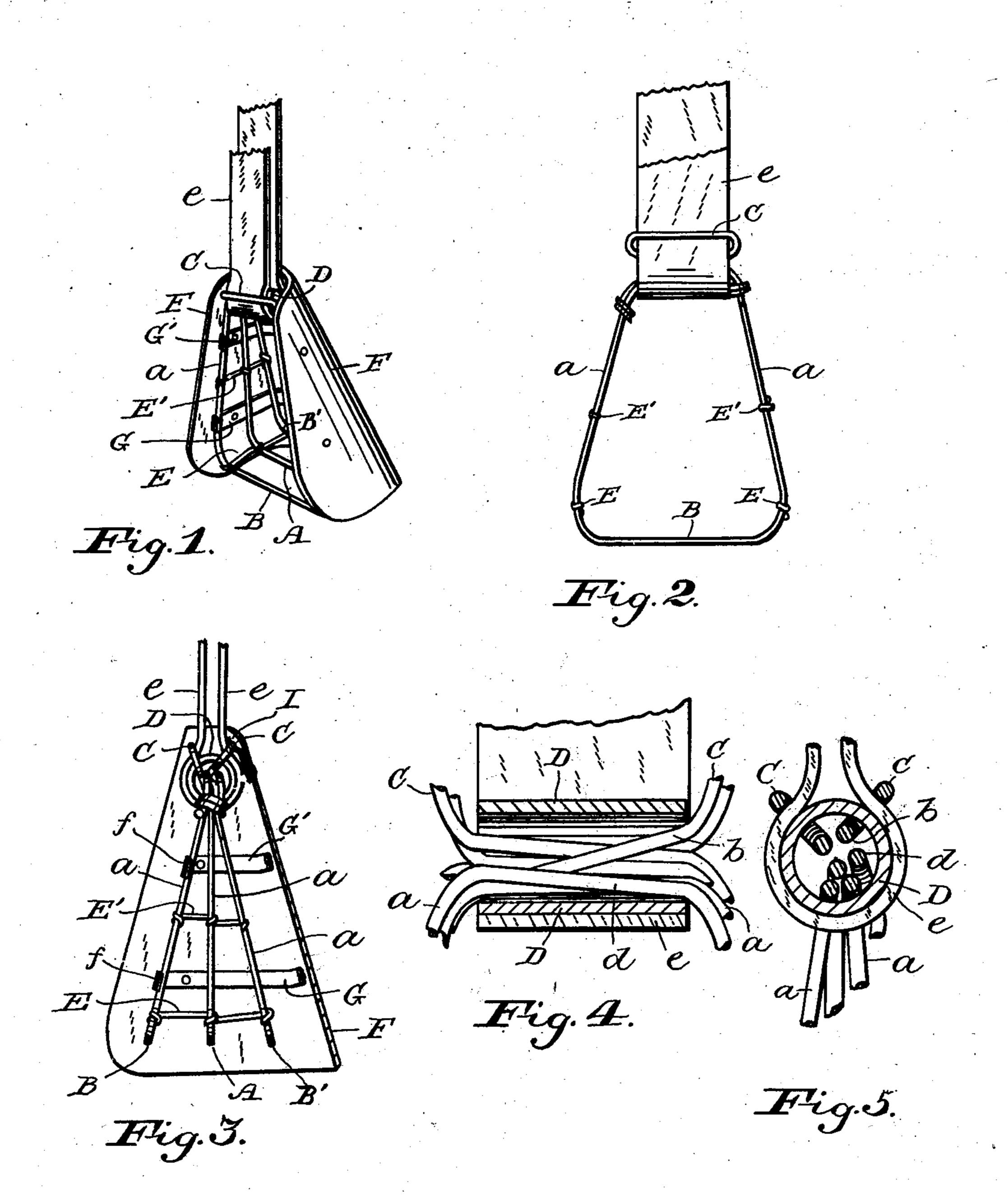
## P. W. KOONTZ. STIRRUP.

Application filed Feb. 26, 1902.)

(No Model.)



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## STIRRUP.

SPECIFICATION forming part of Letters Patent No. 715,485, dated December 9, 1902.

Application filed February 26, 1902. Serial No. 95,782. (No model.)

To all whom it may concern:

Be it known that I, PIERCE W. KOONTZ, a citizen of the United States, residing at Kirksville, in the county of Monroe and State of 5 Indiana, have invented certain new and useful Improvements in Stirrups; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it 10 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to saddle-stirrups, and has particular reference to the type of stirrup that is composed of different kinds of material, the object being to provide an elastic skeleton stirrup that may be not only 20 light, strong, and durable, as is essential, but also adapted to contribute to the comfort of and be economical in use, a particular object being to provide a stirrup that will not be 25 liable to hold mud carried thereto by the rider's footwear and that will not cause the rider's feet to become cold in the winter seasons.

With the above-mentioned objects in view 30 my invention consists in a stirrup composed of a plurality of connected stirrups each formed of thin rolled wires having great strength in proportion to their weight and a removable toe-guard; and the invention con-35 sists, further, in the parts and the combination and arrangement of parts, as hereinafter particularly described, and pointed out in the claims.

Referring to the drawings, in which similar 40 reference characters in the several figures indicate like parts, Figure 1 represents, perspectively, a stirrup constructed in accordance with my invention and having the removable guard attached thereto; Fig. 2, a 45 rear view of the stirrup; Fig. 3, a side view of the stirrup and the guard, a portion of the latter being broken away; and Figs. 4 and 5, enlarged detail views illustrating the manner of connecting parts of the stirrup.

In construction I employ drawn wire of suitable gage and quality and form three princi-

pal parts having substantially the shapes of stirrups in contour comprising horizontal bars A B B', upon which the foot is intended to rest, and upright converging suspending- 55 links a, two for each bar, connecting the bars with a head-piece D, which is in the form of a tube placed horizontally or parallel to the bars A B B', the strands of wire extending, as at b d in Figs. 4 and 5, through the 60 piece D, some of the strands being looped upwardly about the exterior of the head-piece and forming keepers C, under which the supporting-strap e is passed as it is extended about the head-piece. The strands in prac- 65 tice are drawn tightly into the head-piece, and, if preferred, all the parts A B B' a b d C may be composed of a single piece of wire. Spreaders E are attached horizontally to the lower parts of the links a, and like spreaders E' of 70 shorter length are attached to the links aabout midway between the spreaders E and the user, and which may be cheaply produced | the head-piece D, and in this construction a stirrup is formed that is slightly elastic, so as to accommodate itself to the foot of the rider. 75

The guard F is formed of leather or other suitable material and is similar in shape to those in common use, but may be instantly attached and detached. It is provided with a frame G near its lower end and a frame G' 80 near its upper portion, each frame extending about the front and sides of the skeletonframe stirrup above described and having each a pair of hooks f, engaging the links aof the rear bar B. It is designed that the 85 frames and guard may be pushed upwardly to release the hooks f from engagement with the links, the guard-frames normally pressing against the stirrup sides. A catch I is attached to the upper part of the guard F and 90 engages a keeper C for preventing the guard from slipping upward by accident. The frames are suitably formed, so as to engage the links  $\alpha$  of the bar B' in opposition to the hooks f, and thus prevent looseness of the 95 connections.

In practical use the weight of the rider on the stirrups will cause them to yield slightly to the shapes of the shoe-soles, and thus avoid the uncomfortable sensations caused 100 by long contact with a rigidly-formed stirrup. All mud or snow will readily fall from

the rider's shoes, there being no surfaces in the stirrup for retaining such substances. It will be seen also that there can be but little metal to cause cold feet during cold weather, and the stirrup is practically unbreakable.

Having thus described my invention, what

I claim as new is—

1. A stirrup comprising a tubular head10 piece, a plurality of stirrup-forms extending into the tubular head-piece, and spreaders secured to the plurality of stirrup-forms, the said forms each consisting of a horizontal bar and also two integral links converging to

2. A stirrup comprising a tubular head-piece, stirrup-forms each consisting of a wire horizontal bar and a pair of integral suspending-links converging to a pair of such links in the head-piece and secured therein, the wires forming the links extending through the head-piece and across the exterior thereof forming keepers for the saddle-strap, and

wire-spreaders wound about the suspendinglinks.

3. A stirrup including a plurality of horizontal bars, a plurality of suspending-links attached to the bars, a tubular head-piece to which all the links are connected, spreaders connected with the links, and a toe-guard 30 having frames provided with hooks engaging a pair of the suspending-links.

4. In a stirrup, the combination of the plurality of horizontal bars, the suspending-links, the tubular head-piece, the spreaders, the 35 guard-frames connected to the links, the guard attached to the guard-frames, the keepers attached to the tubular head-piece, and the catch for the guard, substantially as set forth.

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

PIERCE W. KOONTZ.

Witnesses:

JOHN T. WOODWARD, GEO. D. THORNTON.