

(No Model.)

C. SPARKS.

HOOP OR BAND FASTENER AND TIGHTENER.

No. 469,889.

Patented Mar. 1, 1892.

Fig. 1.

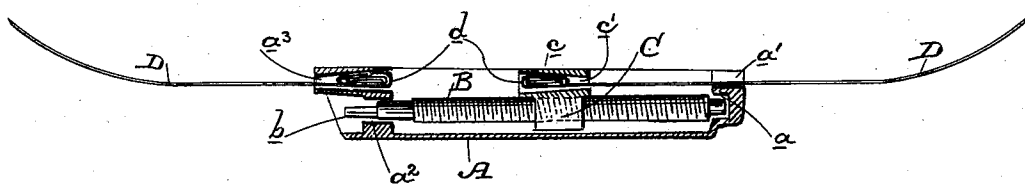


Fig. 3.

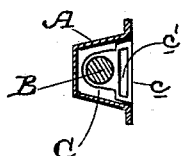
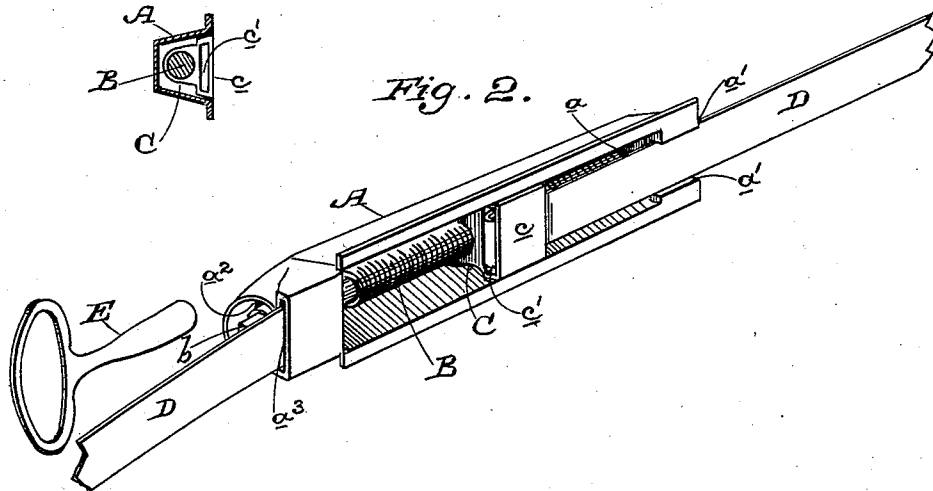


Fig. 2.



Witnesses,
J. A. Bayless.
B. Sourse

Inventor,
Charles Sparks
By Dewey & Co. attys

UNITED STATES PATENT OFFICE.

CHARLES SPARKS, OF SACRAMENTO, CALIFORNIA.

HOOP OR BAND FASTENER AND TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 469,889, dated March 1, 1892.

Application filed September 2, 1891. Serial No. 404,552. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SPARKS, of Sacramento, Sacramento county, State of California, have invented an Improvement in Hoop or Band Fasteners and Tighteners; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the general class of clamps for hoops, bands, straps, &c., whereby they are fastened and tightened.

My invention consists in the novel construction, combination, and arrangement of the screw seat or shell, the screw, and the nut, hereinafter fully described; and it consists, also, in combination with said screw seat or shell and nut, the means for connecting to them the ends of the hoop or band.

The object of my invention is to provide a simple, economical, and effective means for fastening and tightening hoops, bands, and straps of all kinds.

Referring to the accompanying drawings, Figure 1 is a horizontal section of my fastener and tightener. Fig. 2 is a perspective view of the same. Fig. 3 is a cross-section.

A is a shell which forms the screw-seat. It consists of a piece of metal formed hollow with an open bottom, and preferably of the shape shown, with foot-flanges to enable it to rest firmly upon the body which the hoop or band encircles. In one end of this shell is a socket a , and the bottom of this end is grooved or formed with side guides a' to receive and guide the end of the hoop or band which leads to the nut, presently to be described. In the other end of shell A is a hole or bore a^2 , and the bottom of said end is provided with a wedge-shaped slot a^3 , which receives and fastens the other end of the hoop or band.

B is a screw having at one end a key-seat b .

C is a nut fitted on the screw. This nut has a foot c , in which is a wedge-shaped slot c' to receive and hold one end of the hoop or band.

The length of screw B is such that by first fitting its key-seat end well into the hole a^2 of shell A its other end can then be fitted into the socket a of said shell, and the screw then lies wholly within the hollow shell.

D is a band, hoop, or strap. One of its

ends is connected in any suitable manner with the shell A and the other with nut C. A novel and good way of making this connection is to pass the end through the wedge-shaped slot a^3 of the shell, and then after folding said end once, twice, or more times upon itself, as shown at d , to obtain the required thickness, draw said folded end into the slot. This, on account of its shape, will securely wedge the folded end therein. In the same manner the other end is secured in the wedge-shaped slot c' of the foot of the nut.

E is a key to operate the screw.

The operation of my fastener and tightener is as follows: The ends of the hoop or band being secured, as described, and said hoop or band being still slack, the screw is fitted to the shell and the latter is then laid upon the body which the hoop encircles. Then the key E is fitted from the outer end of hole a^2 upon the key-seat end of the screw and said screw is rotated. This causes the nut to travel and thus draws the two ends of the hoop or band together, securely fastening and effectively tightening it.

As it is often necessary to not only slacken up hoops and bands, but also to fully separate their ends, my device provides for this by reversing the screw until the required slack is had, then pushing the screw endwise far enough into hole a^2 to release its other end from socket a and then separating this screw and nut from the shell. The guides a' on the shell end serve to direct and hold the hoop or band square with the nut.

Having thus described my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. A hoop or band fastener and tightener consisting of a shell having a socket and guide a at one end and having its opposite end provided with an opening a^2 and wedge-shaped slot, a screw in the shell having one end mounted in the socket and the other end formed with a key-seat entering the opening a^2 , and a nut on the screw having a foot c , provided with a wedge-shaped slot, substantially as herein described.

2. A hoop or band fastener and tightener consisting of the hollow shell having at one

end a hole and a wedge-shaped slot and at
the other end a socket, the screw having a
key-seat end and fitted to the shell with said
end in the hole thereof and the other end in
5 the socket, and the nut on the screw having
a foot with a wedge-shaped slot, substantially
as herein described.

In witness whereof I have hereunto set my
hand.

CHARLES SPARKS.

Witnesses:

D. W. CARMICHAEL,
W. J. KENDALL.