

J. W. Norcross,

Tackle Hook.

No. 113689.

Patented Apr. 11. 1871.

Fig. 2.

Fig. 1.

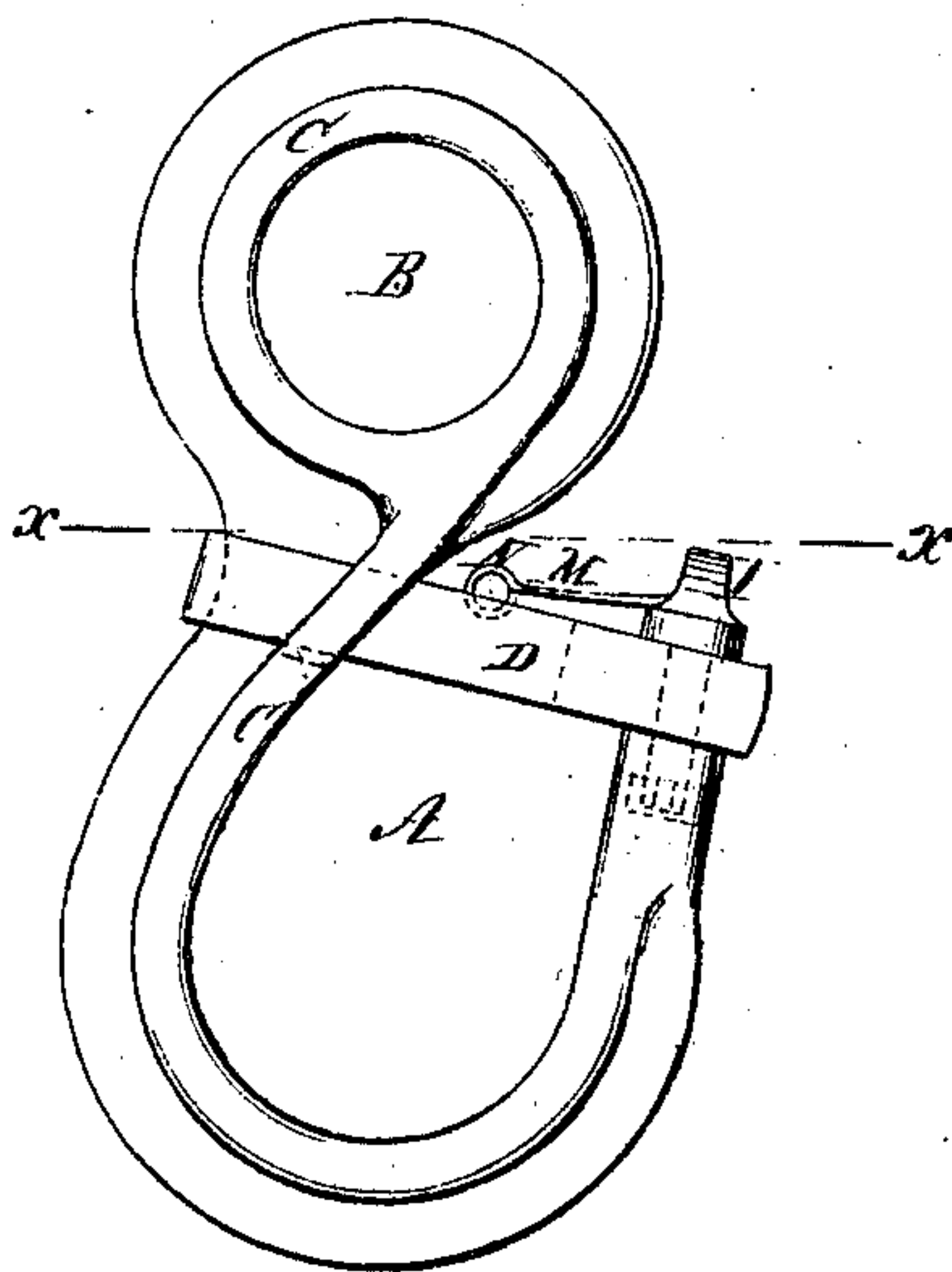
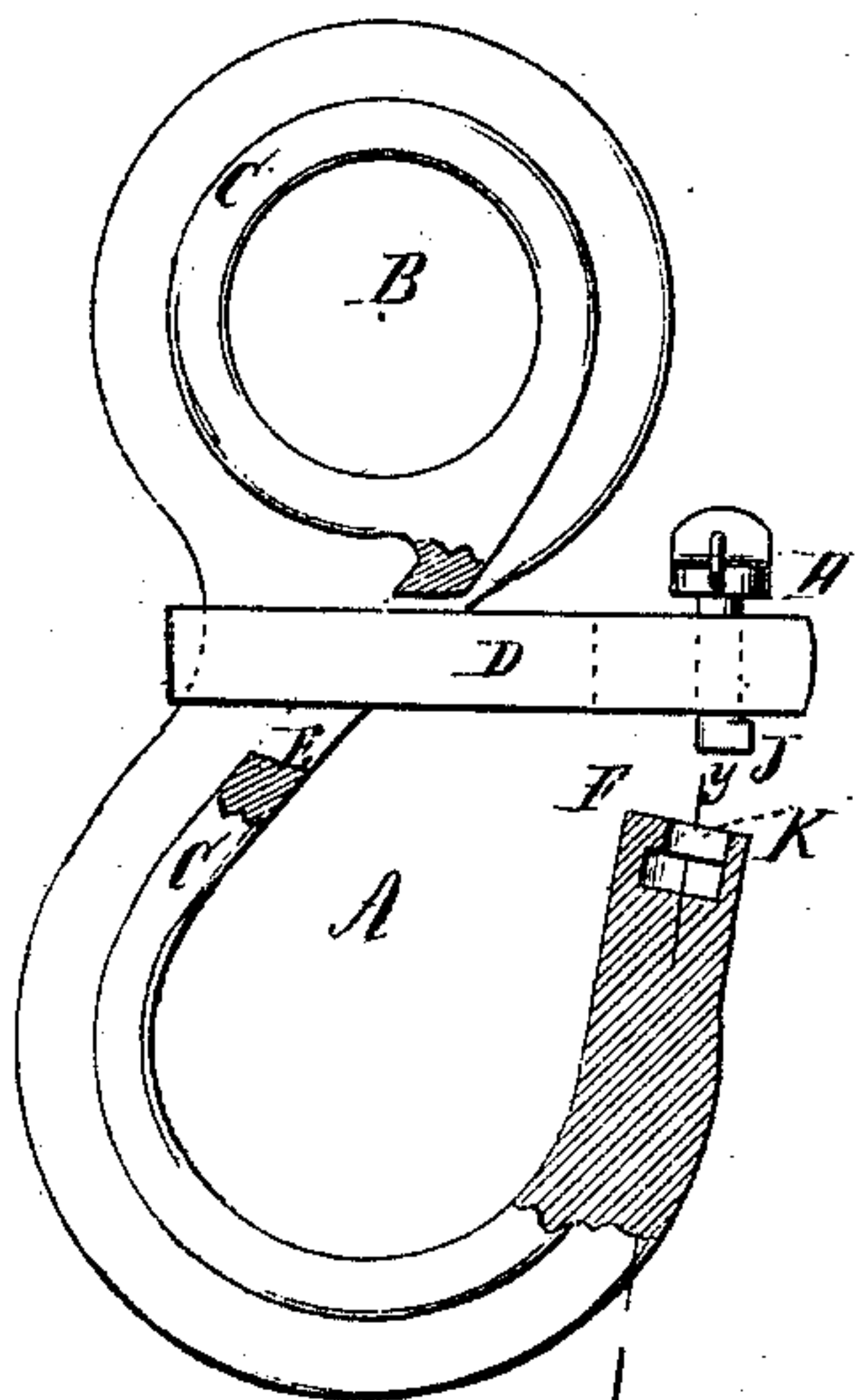
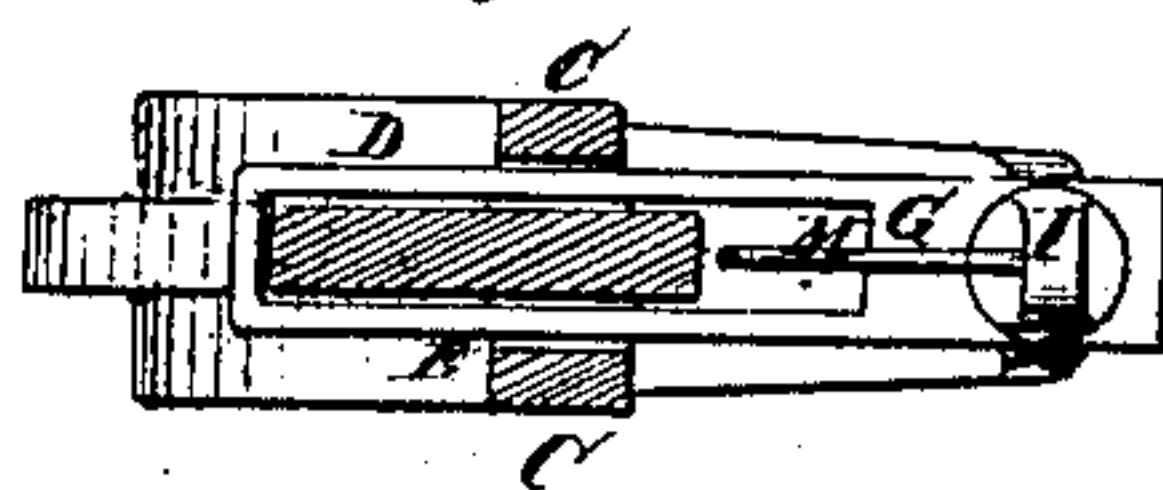
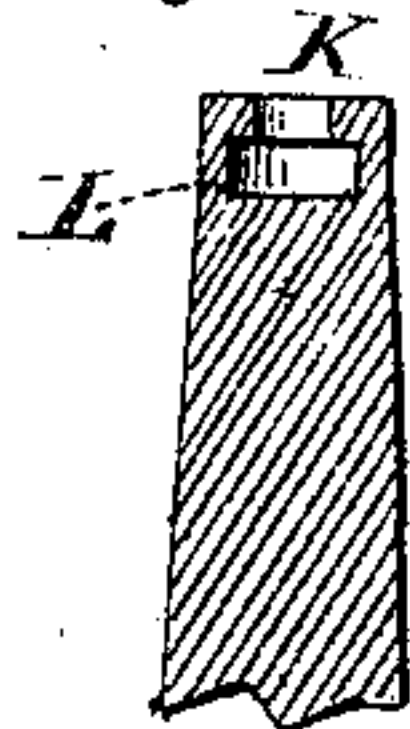


Fig. 4.

Fig. 3.



Witnesses.

*E. Bilhuber.
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Inventor.

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his attys*

United States Patent Office.

JOSEPH W. NORCROSS, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 113,689, dated April 11, 1871.

IMPROVEMENT IN TACKLE-HOOKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOSEPH W. NORCROSS, of Boston, county of Suffolk, Massachusetts, have invented a new and improved Tackle-Hook; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 is a side view of my improved hook, the bracing-strap being shown closed upon the hook.

Figure 2 is a like section when the strap is thrown up.

Figure 3 is a cross-section taken in the line *x x* of fig. 1.

Figure 4 is a vertical section of the end of the hook taken in the line *y y* of fig. 2.

Similar letters indicate corresponding parts.

My invention relates to the class of tackle-hooks described in my Letters-Patent reissue No. 2,042, dated August 1, 1865; and

My present improvement consists in arranging the bracing-strap upon the hook in such a manner as to move up and down in opening and closing the hook, the strap being connected to the hook by means of slots made through its ribs, through which slots the strap passes and goes around the neck or body of the hook.

The letter A designates a hook made according to my invention. It is made of malleable iron, and, in order to put in it the requisite weight of metal to give it the desired strength without having any part of it too thick to be properly annealed, I form on its sides, both on the eye B, and on the rest of the hook, ribs C C, one or more on each side, according to the strength to be given to the article. Such ribs, as well as the frame of the hook on which they are formed, being made, respectively, of such a thickness, say, for instance, not exceeding about half an inch, as will permit them to be properly annealed. By this means I can cast a hook of malleable iron of the requisite weight of metal for the strength required without giving to any part of it so great a thickness as to prevent the annealing process from acting properly on every part of it, as I am enabled, according to my invention, to make the frame of the hook and its ribs of metal of such thickness only as can be thoroughly and properly annealed.

The hook proper is closed by the strap D, which extends around the neck of the hook through vertical slots E E, cut in the ribs C C, said slots being elongated, to allow the strap to rise to give a sufficient opening between it and the point F of the hook when the rope is to be taken out of it.

The ends of the strap extend outward over the point of the hook, and are united by means of an interposed block, G, through which goes a vertical pin,

H, that turns in the block or end of the strap, the top of the pin being provided with a thumb-piece, I, and the bottom of the pin with a nib, J, that goes into a pear-shaped hole, K, which is made in the end of the hook to receive the pin.

The bottom of the hole K has a cavity, L, in which the nib of the pin can move, the upper edge of the cavity or enlargement being inclined so as to form a segment of a screw-thread, whereby, when the pin is inserted and turned, it becomes locked by a screw-like action of the nib on the sides of the cavity.

In order to lock the strap when its pin has been thus connected with the end of the hook I have provided a spring bar, M, which is fastened by one end to the pin H, while its other end reaches back far enough to clear the inner end of the block G and spring down into the vacant space between the sides of the strap, where it remains until forcibly lifted up clear of the upper edge of the strap.

In order that the said bar can be thus lifted up readily when desired I form a ring or thumb-piece, N, on its upper side, to enable one to handle it with advantage. When the bar M is raised out of the strap the pin H can be turned so as to disengage and raise it from the point of the hook.

It is obvious that the brace D could be made single instead of double, in which case only one slot would be required for it, the necessary provision being made to keep it from leaving the slot and to provide for it a bearing for strain on the back of the hook.

The arrangement of the strap herein shown obviates the danger of its fastening device becoming jammed or binding in case the hook becomes elongated by excessive strain, as the strap is free to follow the point of the hook. It is evident that the positions of the slot which hold the strap can be varied without departing from my invention.

It is obvious that the position of the cam or the screw-thread may be reversed; also, two hooks on the pin may be used instead of one. Thus the recess in the chamber at the point of the hook may be made without a cam, and the cam can be put on the bottom of the thumb-knob or on the point of the hook.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the bracing-strap D with the slots E E, made through the ribs of the hook, substantially as described.

2. The combination of the spring locking-bar M with the pin H and the bracing-strap, substantially as described, for the purpose of preventing the disengagement of the strap from the point of the hook.

This specification signed by me this 8th day of February, 1871.

Witnesses: JOSEPH W. NORCROSS.

W. HAUFF,

E. F. KASTENHUBER.