

(No Model.)

F. W. CARNELL.
SNAP HOOK.

No. 505,286.

Patented Sept. 19, 1893.

Fig. 1

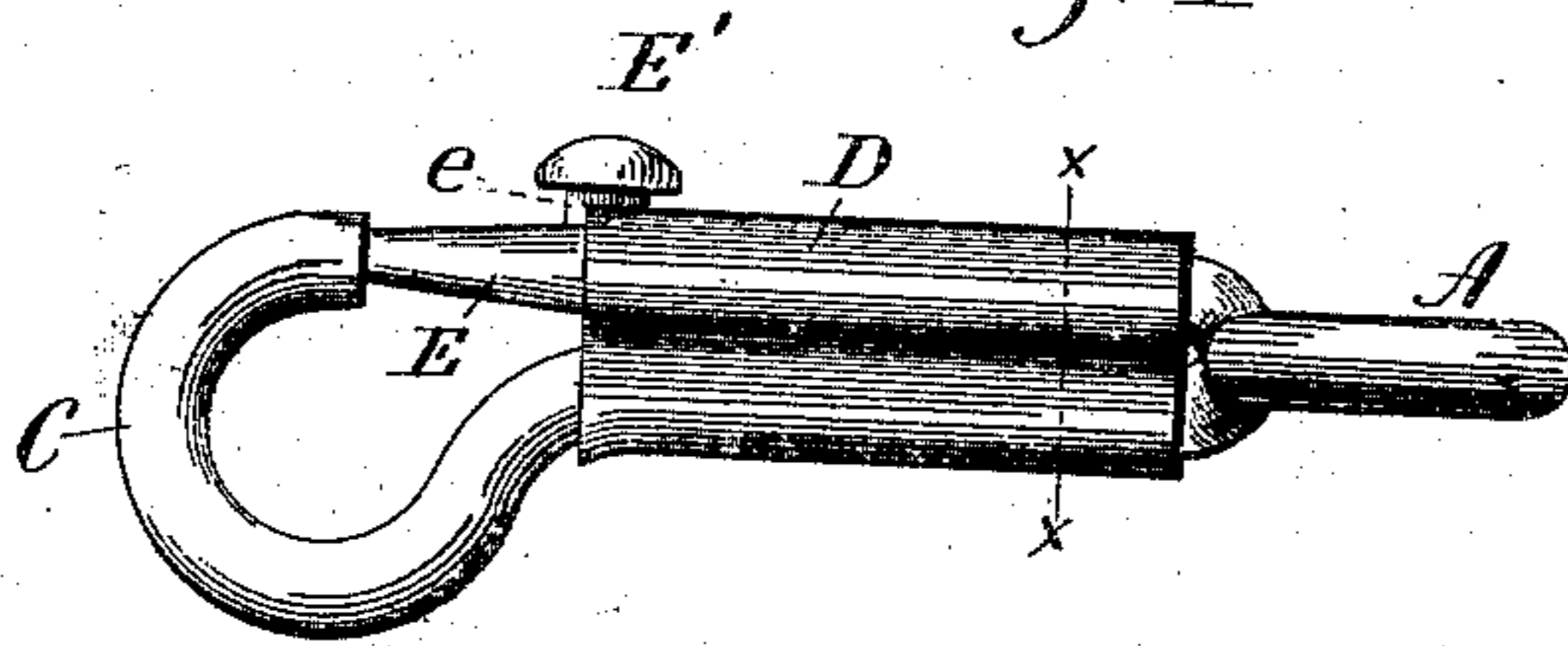


Fig. 2

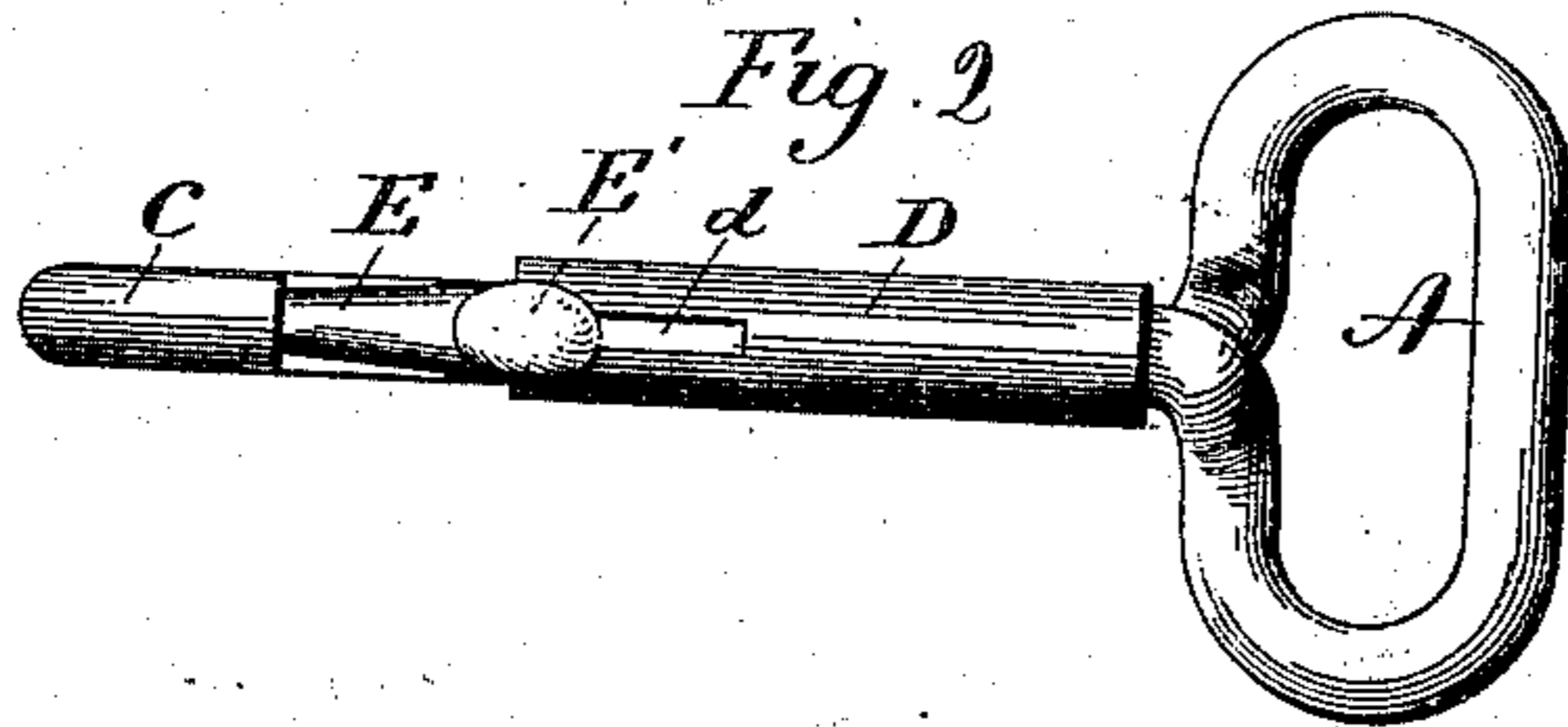


Fig. 3

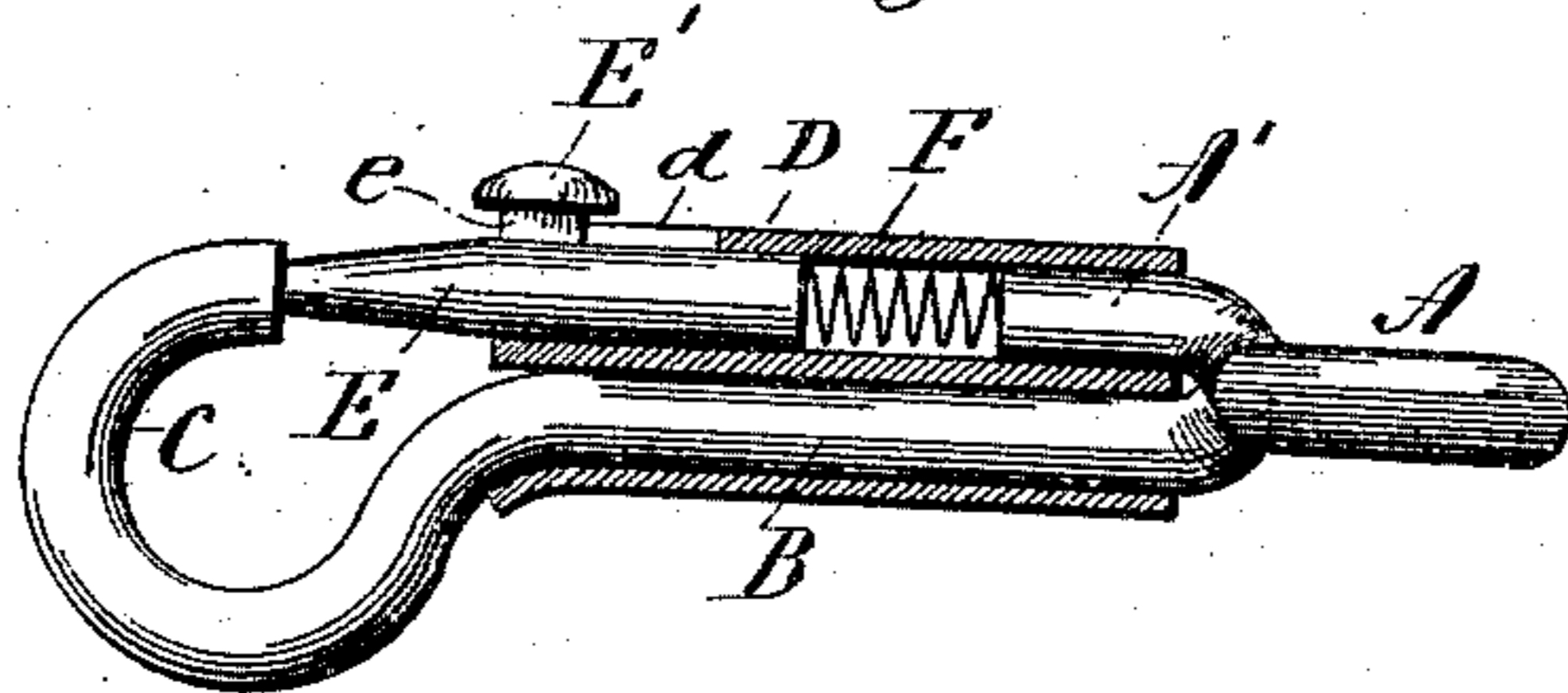


Fig. 4

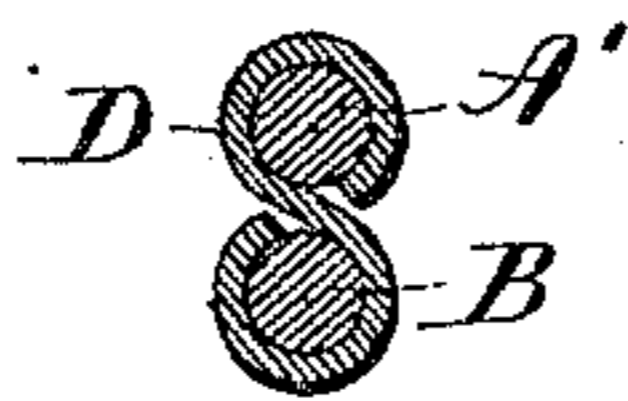


Fig. 5

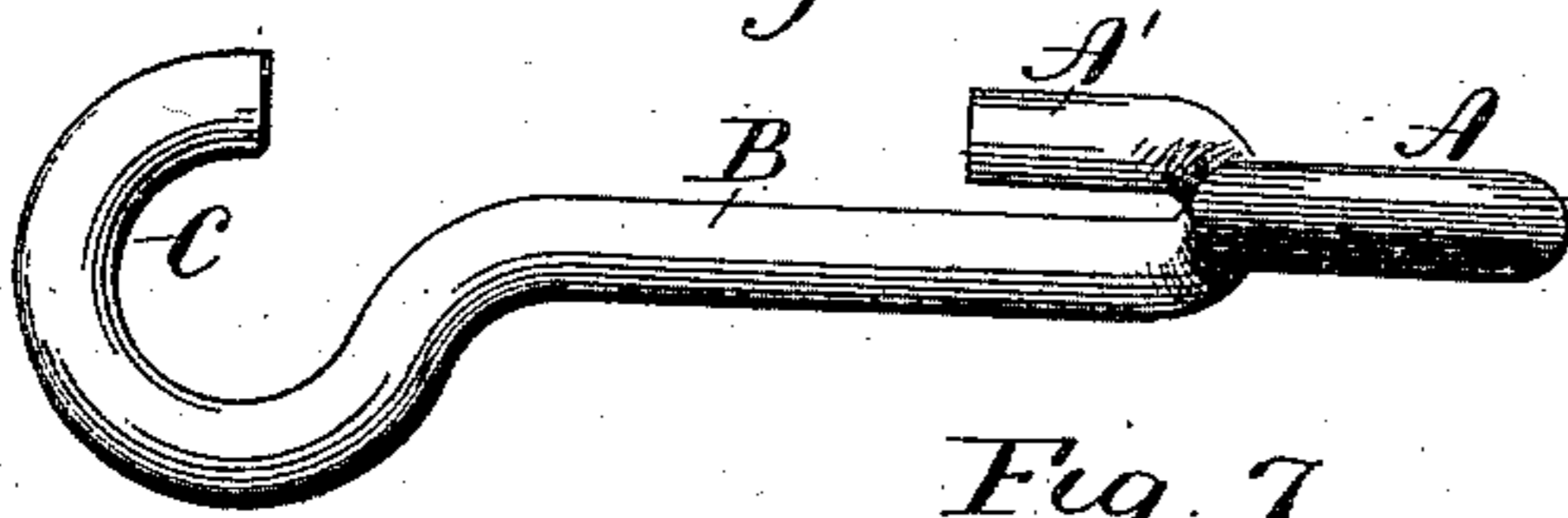


Fig. 7



Fig. 6

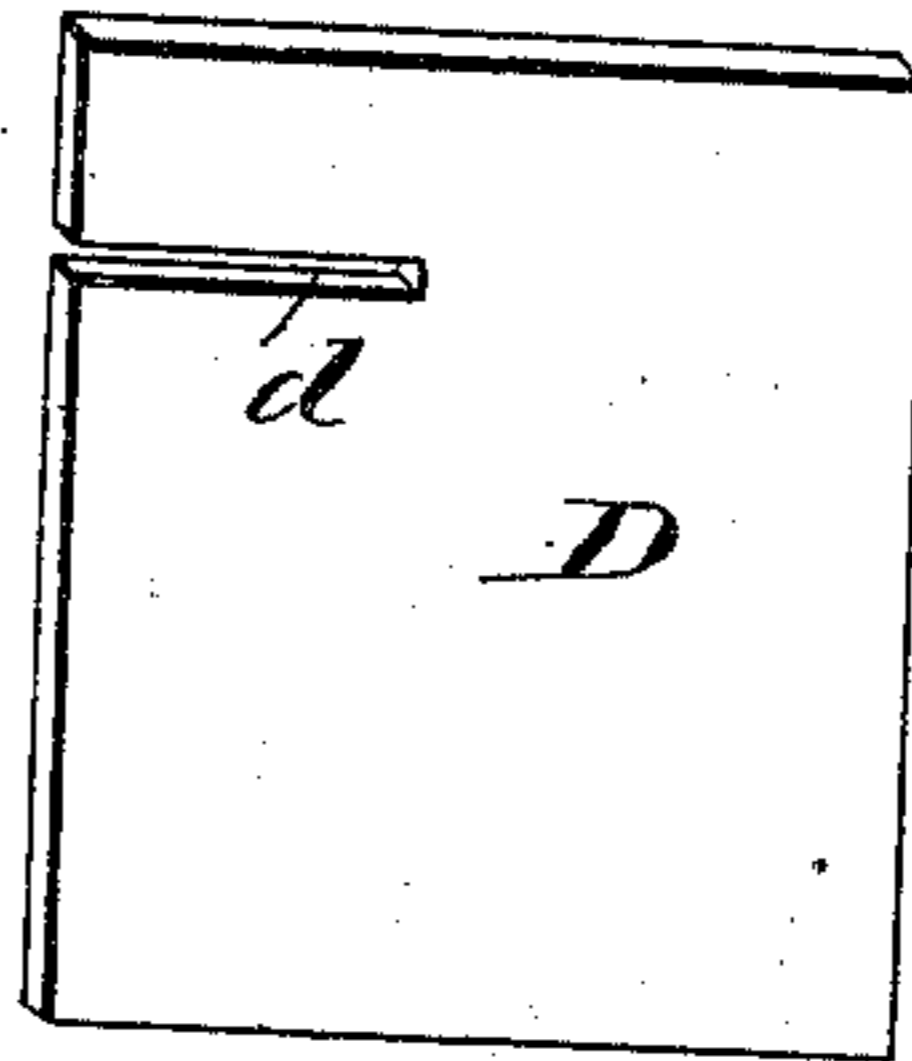
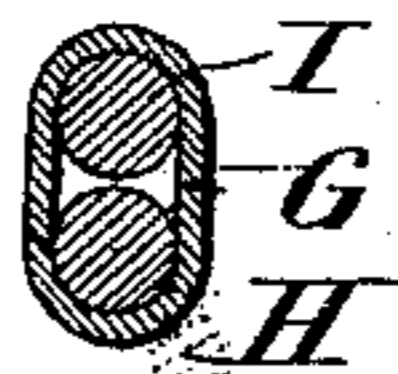


Fig. 8



Witnesses
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G. W. Rea.

Frederick W. Carnell.
Inventor
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UNITED STATES PATENT OFFICE.

FREDERICK W. CARNELL, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO
THE SARGENT & COMPANY, OF SAME PLACE.

SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 505,286, dated September 19, 1893.

Application filed May 22, 1893. Serial No. 475,099. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. CARNELL, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Snap-Hooks; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Fig. 1, a view in side elevation of one form which a hook constructed in accordance with my invention may assume; Fig. 2, a plan view thereof; Fig. 3, a view thereof in vertical longitudinal section; Fig. 4, a view of the hook in transverse section on the line $x-x$ of Fig. 1; Fig. 5, a detached view in side elevation of the wire as bent into form; Fig. 6, a detached view of the blank from which the case is formed; Fig. 7, a detached view of the bolt; Fig. 8, a view in transverse section showing a modified form of case.

My invention relates to an improvement in snap-hooks, the object being to produce a simple, strong, durable and effective article at a low cost for manufacture.

With these ends in view, my invention consists in a snap-hook having certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

In carrying out my invention, I take a heavy piece of wire of suitable length, and bend and shape it to form an eye A, a body-portion B, and a hook-proper C. I do not limit myself to bending the wire in the particular way shown, as it may be shaped as requirement or fancy may dictate.

To the body-portion B, of the hook I apply a case, which, as herein shown, consists of a piece or strap D, of sheet-metal, which is bent and applied to the body-portion of the hook in the form of the letter S, as shown by Fig. 4 of the drawings, one loop of the strap when thus bent, embracing the body-portion of the hook, and the other loop embracing an extension A', from the base of the eye A, thereof, the said extension being in fact one end of the wire. If the case is applied in this way,

sufficient space must be left between the body-portion B of the hook and the extension A', thereof, to permit the strap of sheet-metal to be passed between the same. The case thus formed receives the bolt E, and the coiled spring F, which is interposed between the extension A', before mentioned, and the inner end of the bolt, which is arranged in alignment with the end of the hook-proper C. The said bolt is provided with a button or finger-piece E', the shank e , of which plays back and forth in a slot d , formed to receive it in the case D. The extension A', before mentioned, forms, as it will be observed, not only an abutment for the spring, but also a lock or key for preventing the case from turning on the body-portion B, of the hook. The extension A', might in fact be regarded as a part of the body-portion, though for convenience of description it has not been so mentioned herein. I do not limit myself to constructing or applying the case as described, but when constructed and applied as shown, it is strong and effective, and gives the completed article an attractive appearance. If desired, it might consist of a strap applied as shown in Fig. 8 of the drawings, in which G, represents the case, H, the body-portion of the hook, and I, the extension of the eye thereof.

By forming the eye, body-portion and hook-proper from a single piece of wire, I am enabled to produce a snap-hook at a very low cost for manufacture, which shall possess exceptional strength, not only on account of the inherent strength of the wire, but because it suffers no deterioration of strength during manufacture, while on the other hand cast snap-hooks, as generally made, have their hooks cast out of place for convenience in drawing, and are then twisted and brought into position.

In view of the suggestions made, I would have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention. I am aware, however, that a snap-hook having its body-portion and hook formed from a single piece of wire, and provided with a sheet metal case or barrel containing a bolt, is old,

and I do not therefore broadly claim that construction.

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

1. A snap-hook having an eye, body-portion, hook-proper, and an extension from the base of the eye, all formed from a single piece of wire, a case applied to the said body-portion and extension, and a bolt located in the case, the said extension constituting a lock or key to prevent the case from turning on the body-portion of the hook, substantially as described.

2. A snap-hook having an eye, body-portion, hook-proper, and an extension from the base of the eye, all formed from a single piece of wire, a sheet-metal case applied to the said body-portion and extension, a bolt located in the case, and a spring interposed between the

extension and the bolt, the said extension constituting a lock or key to prevent the case from turning on the body-portion of the hook, and also constituting an abutment for the spring, substantially as described.

3. A snap-hook having its eye, body-portion and hook proper formed from a single piece of wire, a sheet-metal case applied to the said body-portion in the form of a letter S and adapted to embrace the said body-portion, and an extension from the base of the eye, and a bolt located in the said case, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FREDERICK W. CARNELL.

Witnesses:

WILLIAM S. COOKE,
CHARLES L. BALDWIN.