

(No Model.)

W. H. MCGREW.

SNAP HOOK.

No. 332,415.

Patented Dec. 15, 1885.

Fig. 1.

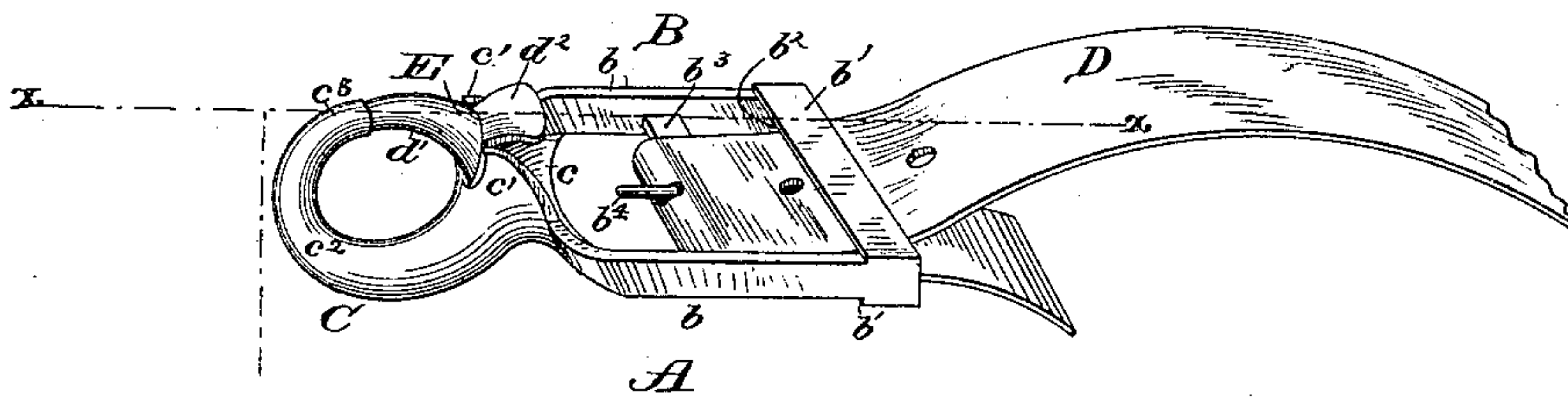


Fig. 2.

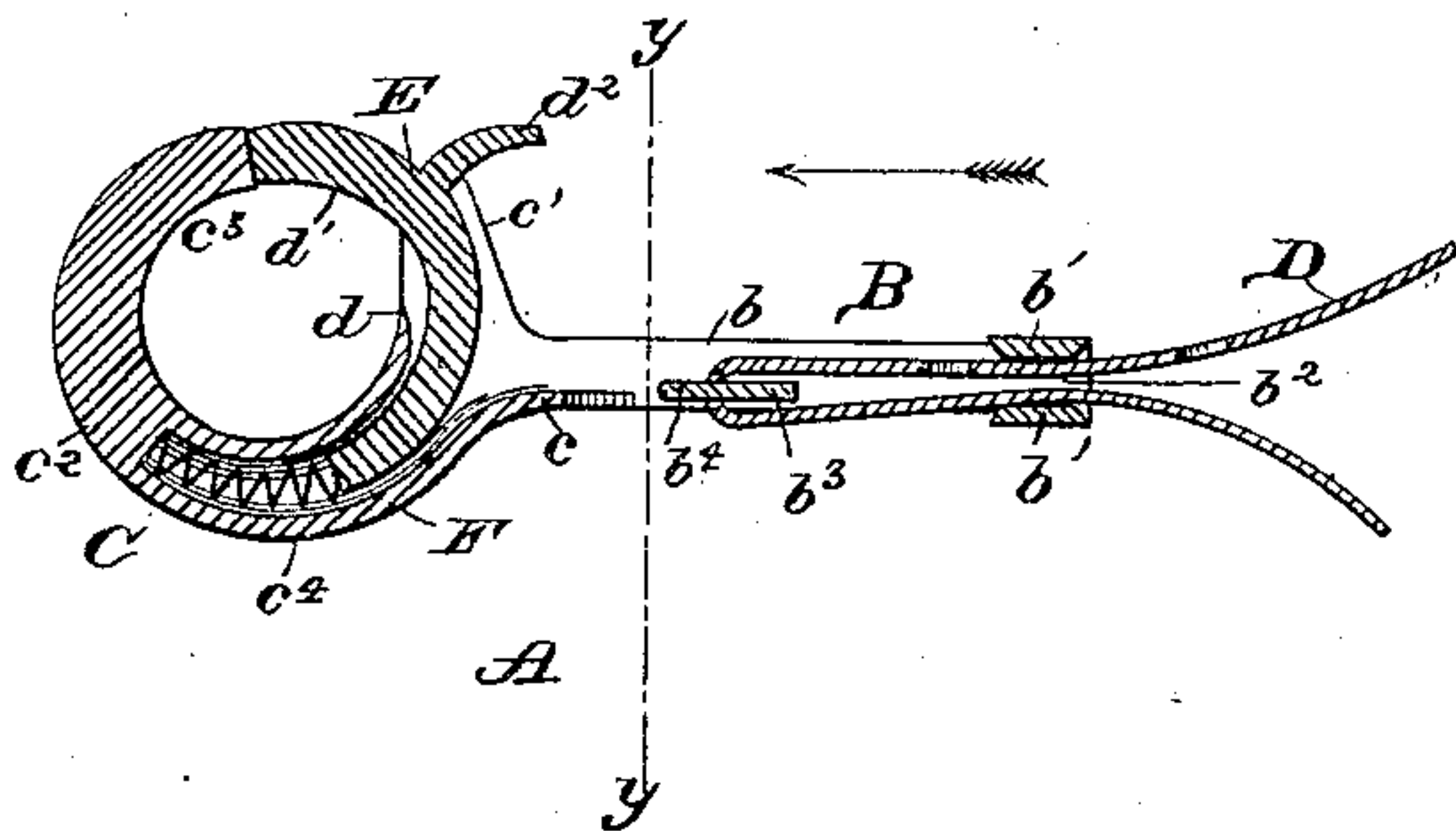


Fig. 3.

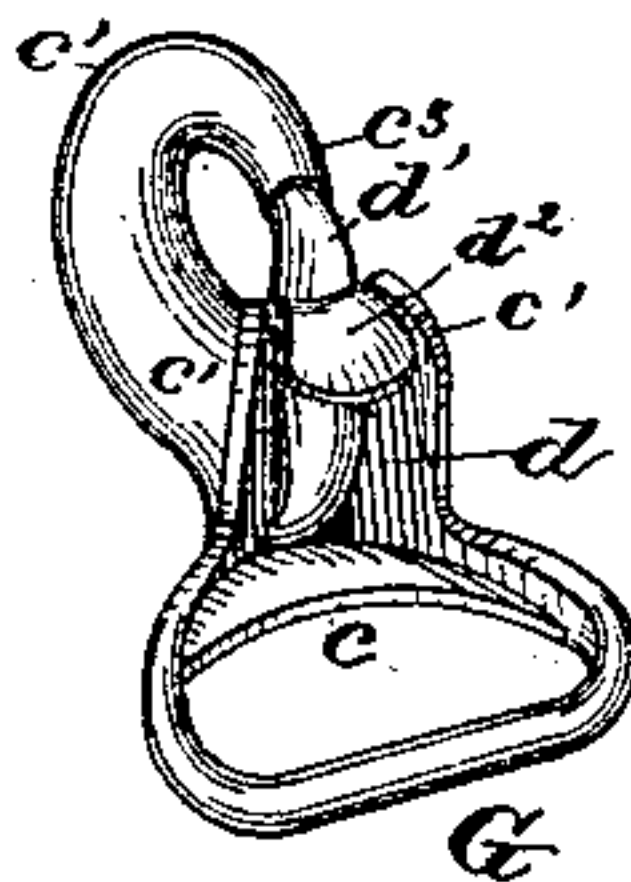
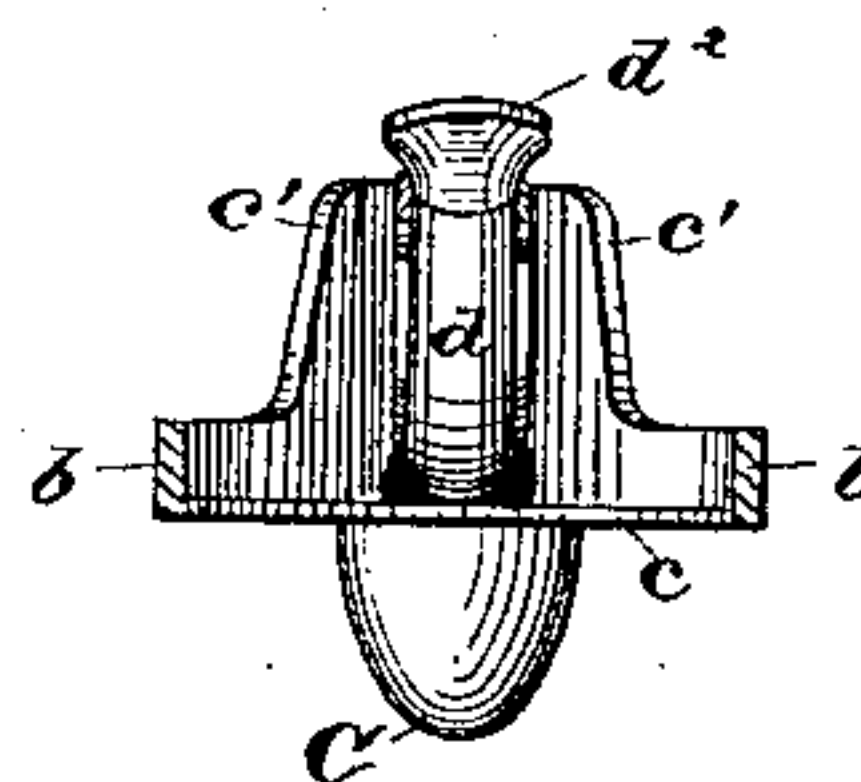


Fig. A.

WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM H. MCGREW, OF PERU, INDIANA, ASSIGNOR OF TWO-FIFTHS TO
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SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 332,415, dated December 15, 1885.

Application filed September 24, 1885. Serial No. 178,066. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MCGREW, a citizen of the United States, residing at Peru, in the county of Miami and State of Indiana, have invented a new and useful Improvement in Snap-Hooks, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to an improvement in snap-hooks; and it consists in the construction, combination, and arrangement of parts, substantially as hereinafter set forth, and specifically pointed out in the claims.

My invention has for its object the provision of a snap-hook which can be easily and conveniently operated to quickly attach and disengage the device to any part of the harness, and which shall be free from liability to be disengaged therefrom, and to combine strength and durability of construction with thorough effectiveness of operation.

In the accompanying drawings, Figure 1 is a perspective view of my improved snap-hook. Fig. 2 is a longitudinal vertical sectional view on the line $x x$, Fig. 1. Fig. 3 is a transverse section on the line $y y$ of Fig. 2, looking in the direction indicated by the arrow. Fig. 4 is a perspective view of a modification.

Like letters of reference indicate corresponding parts in the several figures of the drawings, referring to which—

A designates my improved device, which consists, essentially, of a buckle, B, and hook C, the peculiar construction and arrangement of the several parts of which are as follows:

The buckle B comprises two side bars, $b b$, arranged in a vertical plane at a short distance from each other, two parallel cross-bars, b' , arranged at the outer ends of the side bars, on the upper and lower surfaces thereof, to provide a loop, b^2 , for the passage of a strap, D, to be connected to said buckle, and a cross-bar, b^3 , arranged a short distance from the bars b' within the plane of the side bars, and having a tongue, b^4 , over which the strap D is passed and bent or lapped upon itself and passed between the bars b^2 , while the tongue b^4 passes through an opening in said strap.

The tongue b^4 is shown arranged in a hori-

zontal position; but it may project upwardly in an inclined position, if preferred. The forward ends of the side bars, b , of the buckle are curved inwardly toward each other, and connected by a flange, c , extending from one to the other, and arranged on the plane of the lower edges thereof, and by vertical walls c' flaring outwardly from each other, and providing guides for the arm d of the tongue E to the snap-hook, as will presently appear.

The snap-hook C comprises a curved hook, c^2 , which projects from the inclined walls or guides c' , and is bent over upon itself to provide an arm, c^3 , the inner end of the arm or hook c^2 being made hollow, as at c^4 , for a portion of its length, and which communicates with the spaces between the flaring guide-walls, the tongue or arm of the keeper or tongue E of the snap-hook being arranged to pass within the said opening c^4 .

The tongue or keeper E comprises a curved arm, d , and a finger-piece, d^2 , arranged at an angle thereto. The arm d is curved in the arc of a circle concentric with the curved hook C, and the lower end thereof is fitted in the recess c^4 , while the upper end bears against the extreme forward end of the hook C. Said arm d is arranged between the vertical walls c' , and is free to move or slide between them and within the socket c^4 in the curved hook to open and close the ring to permit hooks, buckles, &c., to be connected thereto. The flaring walls c' serve as guides to the sliding arm d and to the operator's fingers in manipulating the device to attach or detach it, as desired.

F designates a coiled spring arranged within the chamber or opening c^4 in the hook c , and bearing at one end against the inner wall thereof, and at its opposite end against the arm d of the tongue E, to keep the same normally pressed outward and in contact with the arm c^3 of the hook C, as will be readily understood.

The various side and cross bars of the buckle B, the vertical flaring guide-walls c' , and the hook c are all cast or formed in one piece for simplicity, strength, lightness, and durability, and the arm d and finger-piece d^2 are also cast or formed in one piece, thus making the com-

plete snap-hook in three pieces—the buckle and hook, the tongue thereto, and the spring—which are so arranged and put together as to present a neat and compact appearance, and
5 very durable and strong in construction, and easily and conveniently operated.

The arm *d* of the tongue moves inwardly within the plane of the hook *c* when operated, and it is normally housed within and protect-
10 ed from breakage or damage by the vertical flaring walls *c'* and the recess.

In the device shown in Fig. 4 the buckle B is dispensed with, and in lieu thereof a single loop, G, is employed, around which the strap
15 D is passed; but I prefer to employ the buckle B, for the reason that a convenient and simple means is provided for detachably connecting the device to a strap.

Various slight changes in the form or pro-
20 portion of the parts can be made without departing from the principle or sacrificing the advantages of my invention, the essential features of which will be readily understood from the foregoing description, taken in connection
25 with the annexed drawings.

I claim as my invention—

1. As an article of manufacture, a snap-hook having a buckle and the flaring guide-walls *c'*, cast integral therewith, and provided with a curved socket, *c'*, a sliding tongue, E, ar-
30 ranged between the guide-walls and having a finger-piece, and a spring seated in the socket and bearing against the tongue to keep the same normally in engagement with the hook, as set forth.

2. As an article of manufacture, a snap-hook comprising a buckle and hook cast or
35 formed in one piece, the buckle having side and cross bars and an attaching-tongue, a sliding tongue having an arm, *d*, and a fin-
40 ger-piece, *d'*, flaring side walls, *c'*, formed with the buckle and hook, and a spring seated in a recess in the hook and keeping the arms *d* *d'* normally pressed outwardly, as set forth.

In testimony that I claim the foregoing as
45 my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM H. MCGREW.

Witnesses:

WILLIAM S. WATSON,
HENRY J. MCGREW.