

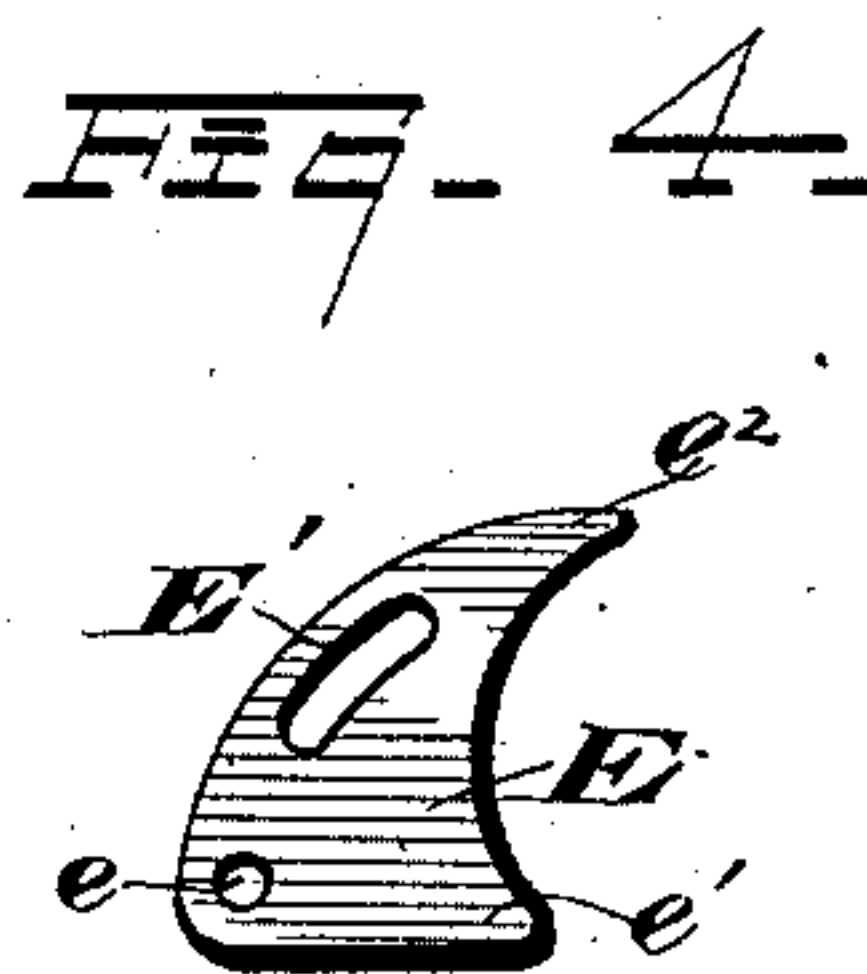
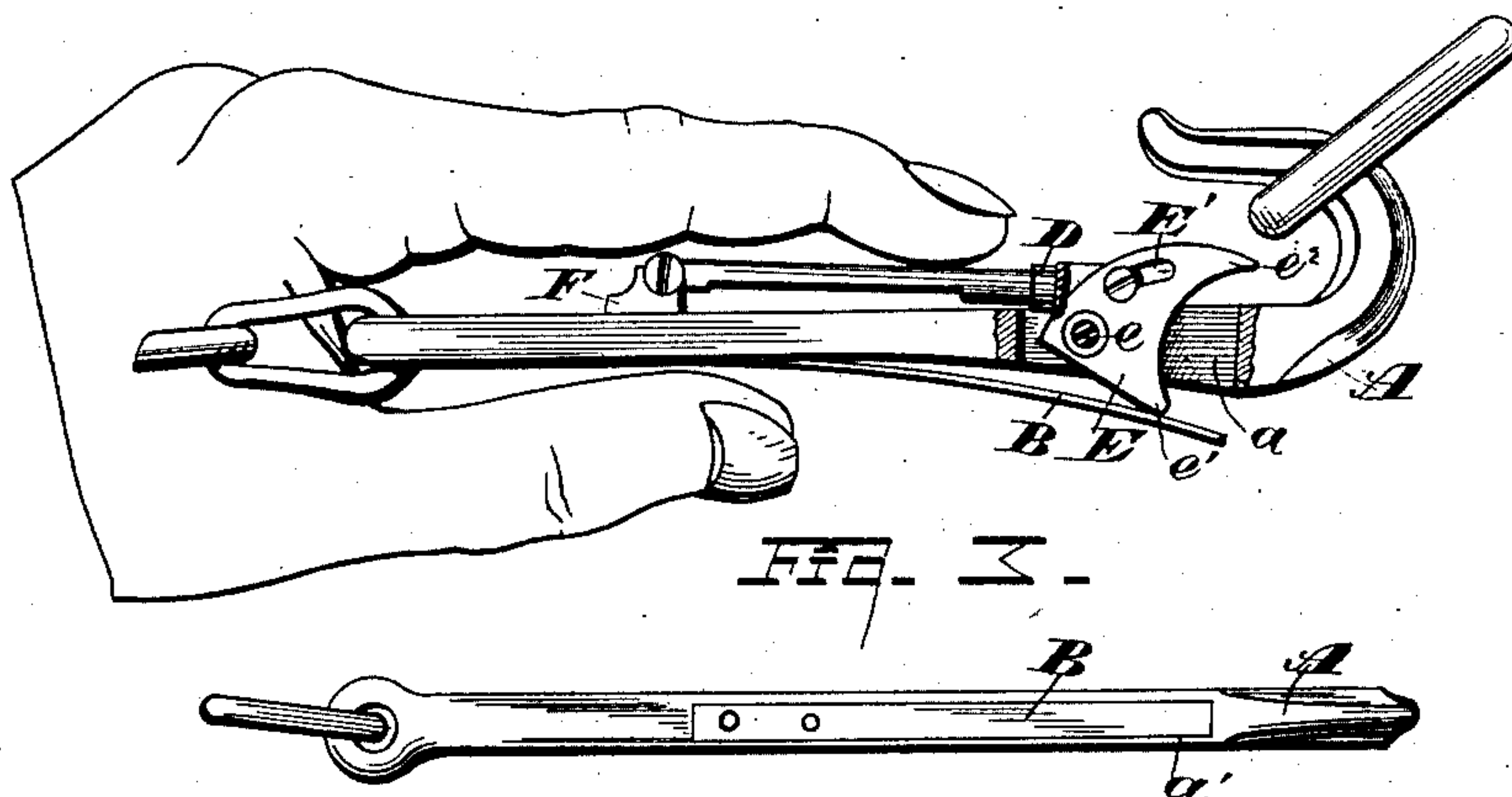
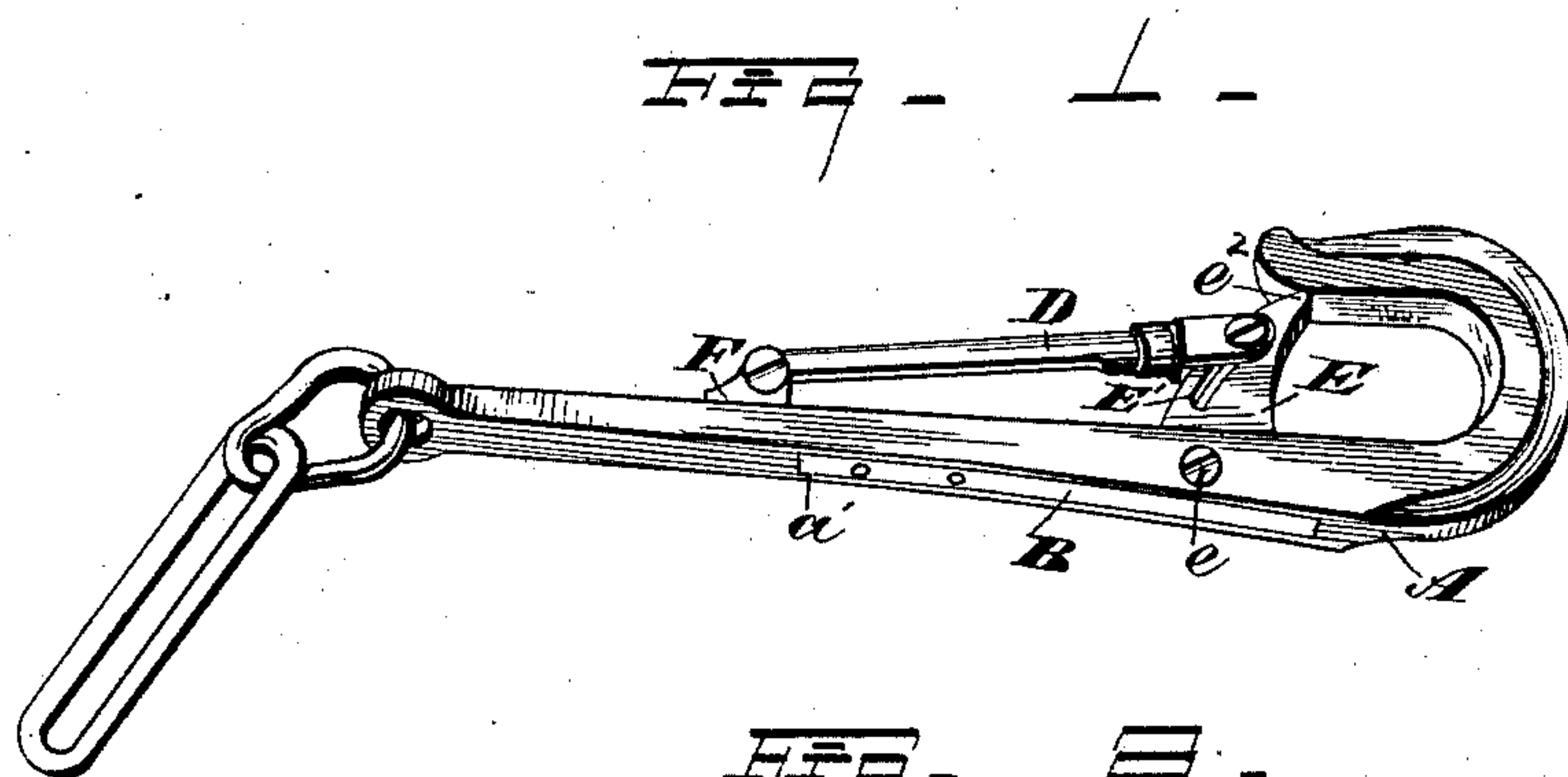
(No Model.)

C. D. MURPHY.

SNAP HOOK.

No. 314,867.

Patented Mar. 31, 1885.



WITNESSES

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# UNITED STATES PATENT OFFICE.

CORNELIUS D. MURPHY, OF CLEVELAND, OHIO, ASSIGNOR TO THE WORSWICK MANUFACTURING COMPANY, OF SAME PLACE.

## SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 314,867, dated March 31, 1885.

Application filed August 16, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CORNELIUS D. MURPHY, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and  
5 useful Improvements in Snap-Hooks; and I do hereby 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 pertains to make and use the same.

10 My invention relates to improvements in snap-hooks, the object being to provide a lever of the bell-crank variety pivoted in a recess in the body of the hook and operated in the direction that opens the hook by an arm  
15 or thumb piece, and operated in the direction that closes the hook by a spring, and the parts so arranged that a pressure on the lever from the inside of the hook will not affect the spring but will co-operate with the spring to keep  
20 the hook closed.

With these objects in view my invention consists in certain features of construction and in combination of parts that will be hereinafter described, and pointed out in the claims.

25 In the accompanying drawings, Figure 1 is a view in perspective of my improved snap-hook in its closed position. Fig. 2 is a side elevation of the hook when open. Fig. 3 is a plan view of the bottom of the hook. Fig. 4  
30 is a side elevation of a bell-crank lever that is a part of the mechanism of the hook.

A represents the body of the hook, and is provided with the longitudinal slot *a*, that is below the point of the hook, and extends  
35 through the bar into the recess *a'*, that is on the back side thereof, and in which is located the spring B.

F are lugs extending upward from the face of the bar A, and embrace the end of the arm  
40 or thumb-piece D, and to which the arm is pivoted.

E is a lever, of the bell-crank variety, that is pivoted in the slot *a* on the pin *e*. The forward end of the arm D is forked and embraces  
45 a portion of the lever E, and is provided with a pin, *b*, that passes laterally through the arm.

D and through a cam-slot, *E'*, in the lever E. The spring B, at the rear end, is secured in the recess *a'*, and its normal position is flush with the rear face of the part A, and its free  
50 end rests on the part *e'* of the lever E, and in this position of parts the part *e''* of the lever E is in close proximity to or rests against the point of the hook A. By pressing down on the part D by means of the pin *d* and the cam-  
55 slot *E'* the lever is depressed or moved to the position shown in Fig. 2, pressing the front end of the spring B outward. When the arm D is released, the lever E, by the recoil of the  
60 spring B, is again returned to the position shown in Fig. 1. When the hook is closed, as shown in Fig. 1, a pressure on the lever E from the inside of the hook does not bring any additional strain on the spring, but rather  
65 co-operates with the spring in keeping the hook closed.

The rear end of the part A may have a loop, eye, or any suitable device for attaching a chain, strap, or whatever may be required.

What I claim is—

70 1. In a snap-hook, the lever E, pivoted in the slot *a*, and provided with the cam-groove *E'* and with the points *e'* and *e''*, in combination with the spring B and the arm or thumb-  
75 piece D, and the parts so arranged that by depressing the arm the hook will be opened, and will be closed by the action of the spring, substantially as set forth.

2. In a snap-hook, the combination, with the hook and the bell-crank lever pivoted  
80 thereto, of the spring secured to the hook and having an extended bearing against one arm of the bell-crank lever, substantially as set forth.

In testimony whereof I sign this specifica-  
85 tion, in the presence of two witnesses, this 31st day of July, 1884.

CORNELIUS D. MURPHY.

Witnesses:

CHAS. H. DORER,  
ALBERT E. LYNCH.