

H. E. COBLE.

SNAP HOOK.

APPLICATION FILED DEC. 16, 1908.

990,526.

Patented Apr. 25, 1911.

Fig. 1.

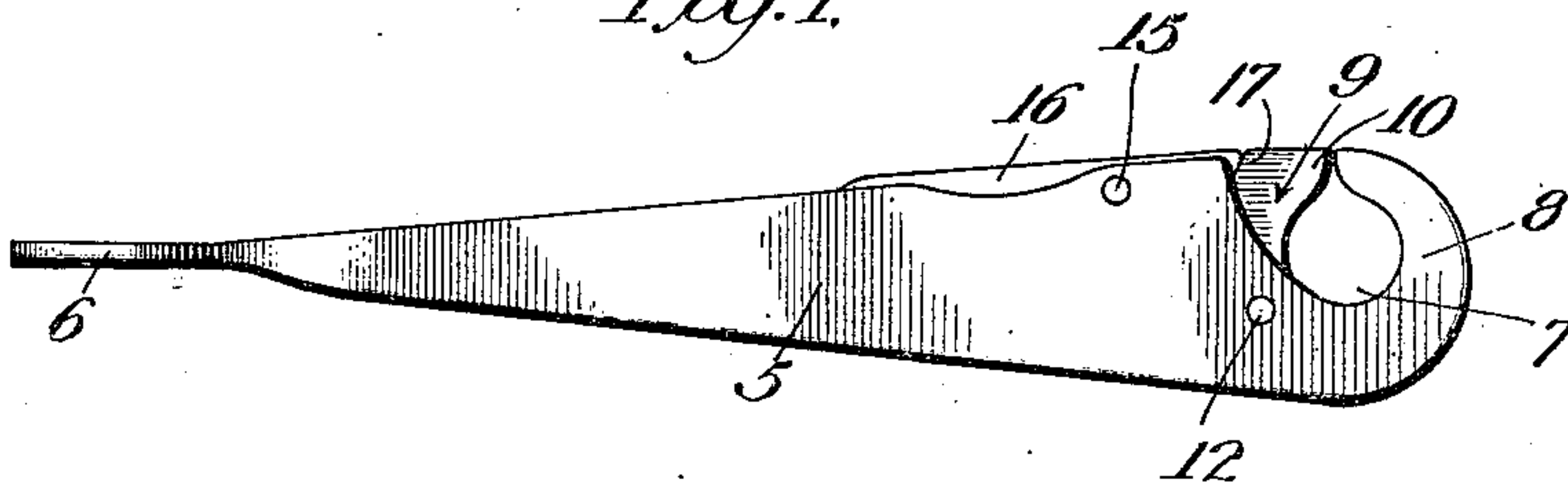


Fig. 2.

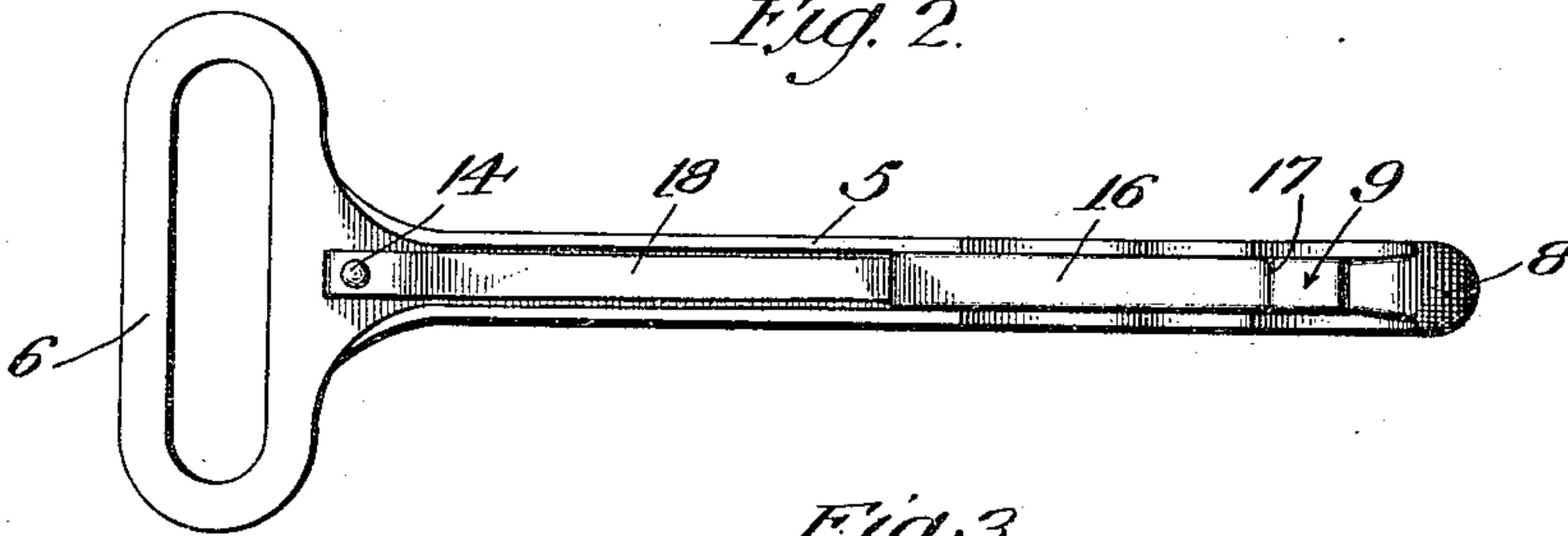


Fig. 3.

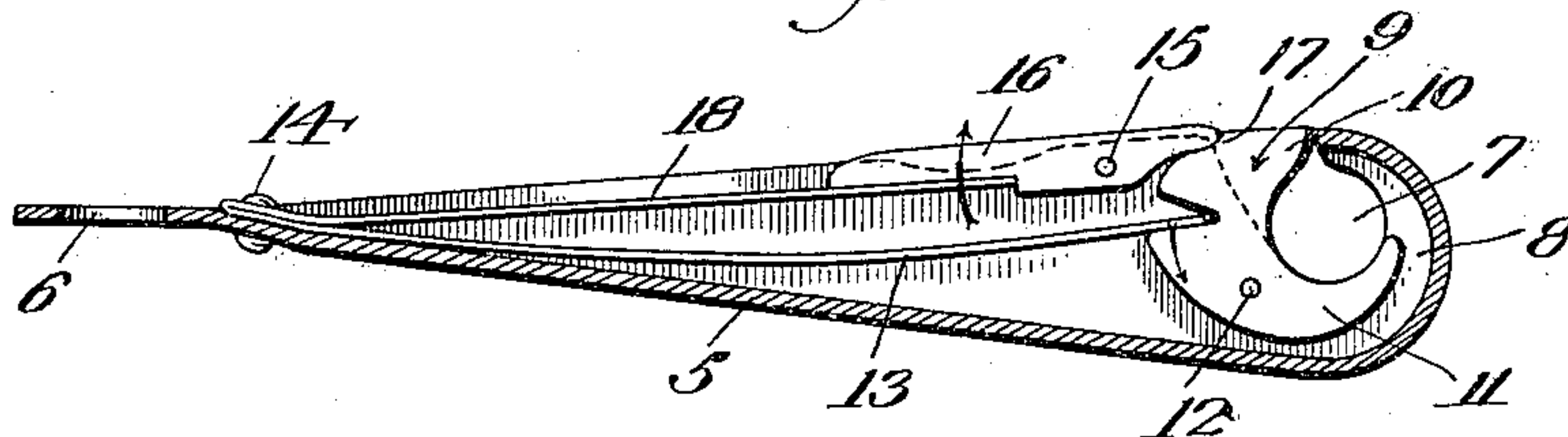
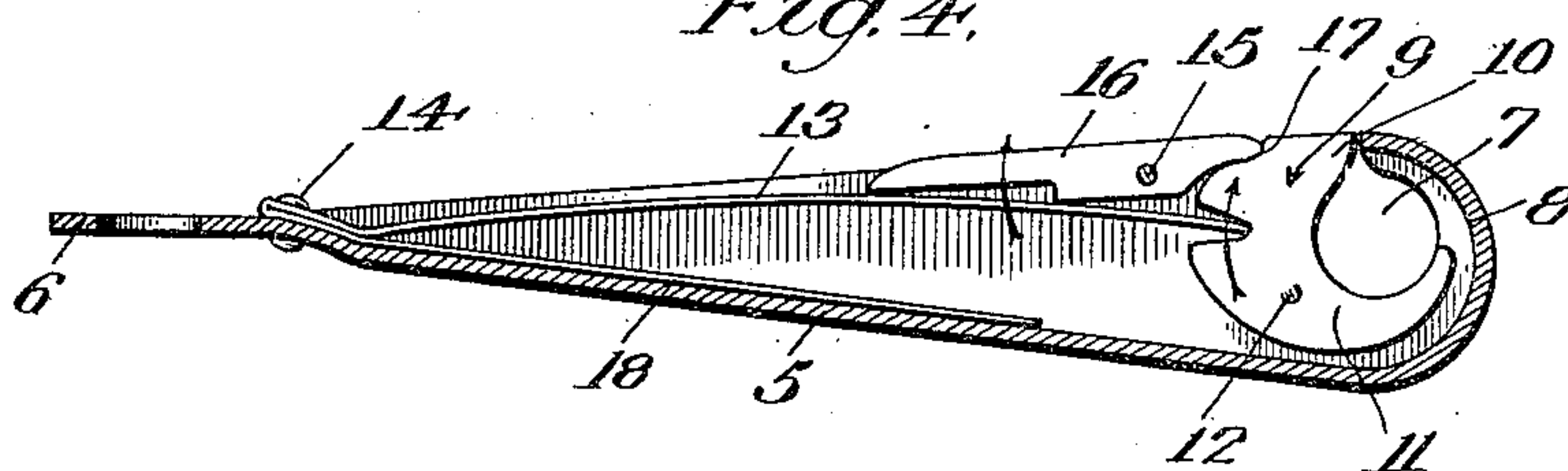


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SNAP-HOOK.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HARVEY E. COBLE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Snap-Hooks, of which the following is a specification.

This invention relates especially to a snap hook for harness use and the like although it may be used for any other purpose to which articles of its general nature may be put.

The invention consists mainly in the provision of a simple mechanism by means of which the snap is held in either its open or closed position. By a reversible arrangement of the actuating spring in the interior of the hook the mechanism is made to operate the snap in two different manners. In the first position it is arranged that the snap be either closed or open and that it will stay in either of these positions without any manual aid. In the second position of the spring it is arranged that the snap be normally closed and that it can be opened manually, returning to its closed position when the manual operation is released.

The parts of the hook are so arranged that it is only necessary to remove the spring and replace it to change the operation of the snap. The combination of parts is essentially the same in the one arrangement of the parts as in the other so that the two arrangements become very closely allied modified forms of each other. This fact will appear more clearly from the following description, and the accompanying drawings, in which.—

Figure 1 is an elevation of the hook. Fig. 2 is a plan view of the same. Fig. 3 is a sectional view of the same. Fig. 4 is a similar sectional view of the modified form.

In the drawings 5 designates the body of the hook which is preferably formed of sheet metal bent up in the form illustrated or may be made of a casting as is desired. It is made in a hollow configuration as illustrated with a loop 6 on its end for securing to a strap or other member. An opening 7 is formed in the body transversely thereof and this opening leaves a hook 8 on the end of the body similar to the usual hook. Mounted inside the body is a snap member 9 which is shown in its closed position. In this position its end 10 rests against the end of hook 8 and its curved

portion 11 follows the contour of opening 7. The snap member is pivoted at 12 to the body and the lower portion 13 of a flat spring is adapted to press it in the direction indicated by the arrow, the spring being secured at 14 to the body. Pivoted to the body at 15 is a detent 16 whose forward end rests against shoulder 17 on the snap member and thus holds the member in the position shown. The rear end of the detent is supported by the upper portion 18 of the flat spring.

In the operation of the hook in the arrangement described it is only necessary to depress the rear end of detent 16 to open the hook. On the depression of the same the snap member will move rearwardly under the influence of spring 13, its curved portion moving up into opening 7 in the body. When the hook is snapped over any article the curved portion 11 of the snap member comes into contact with it and the member is thereby pulled back to its original position. When this is done the detent springs in behind the snap member and it is again locked in place. In this arrangement, then, it will be seen that the snap will remain in either of its positions after having been so placed. As it is normally open when there is nothing in it, the hook is always in position to be hooked over any article.

In Fig. 4 the second arrangement of the hook is shown. It is manifest that the only change from the arrangement shown in the first figures is that the spring has been inverted, its long portion now being uppermost and bearing upwardly against both the detent and the snap member. As the spring bears upwardly the normal position of the snap member is necessarily a closed one, and the normal position of the detent is such as to lock the snap member in this position. From the relative arrangement of the parts it is only necessary to bear downwardly on the rear end of the detent to open the hook by moving the snap member back, the downward movement of the detent removing its end from engagement with shoulder 17 on the snap member and exerting a downward pressure on the spring so that the snap member is rotated in the direction opposite to that indicated by the arrow. With this arrangement of the parts the hook is always closed and locked in that position, it being only possible to open it by depressing the detent.

From the foregoing it is seen that the invention consists mainly in the combination of parts which enable the hook to be locked closed or open and that this combination
5 consists broadly of the addition of a detent to the hook to hold the snap member in place. The configuration of the parts has been adapted especially to the operation of
10 this combination, but it is possible to remodel the parts to suit a hook of any size or configuration without sacrificing the utility of the invention.

Having described my invention, what I claim is:—

15 1. A snap hook, comprising a body member in hook form, a snap member pivoted to the body member and normally adapted to close the hook gap, an extension on the snap member normally lying at the back of the
20 hook gap, a detent pivoted to the body member and engaging with the snap member to hold it in its normal position, and a flat spring having two ends adapted one to normally engage the detent and the other the
25 snap member to move them in opposite directions, the spring being reversible in position so that one end engages both the detent

and snap member to move both in the same direction.

2. A snap hook, comprising a body mem- 30
ber in hook form, a snap member pivoted to the body member and normally adapted to close the hook gap, an extension on the snap member normally lying at the back of the
hook gap, a detent pivoted to the body mem- 35
ber and engaging with the snap member to hold it in its normal position, and a flat spring secured to the body member and having two ends, one end normally engaging
with the detent to hold it against the snap 40
member and the other end engaging with the snap member to move it from its normal position, the spring being reversible so that
one end alone engages with both the snap 45
member and the detent and moves the snap member into its normal position and the detent against the snap member.

In witness that I claim the foregoing I have hereunto subscribed my name this 9th day of December 1900.

HARVEY E. COBLE.

Witnesses:

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ELWOOD H. BARKELEW.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
