

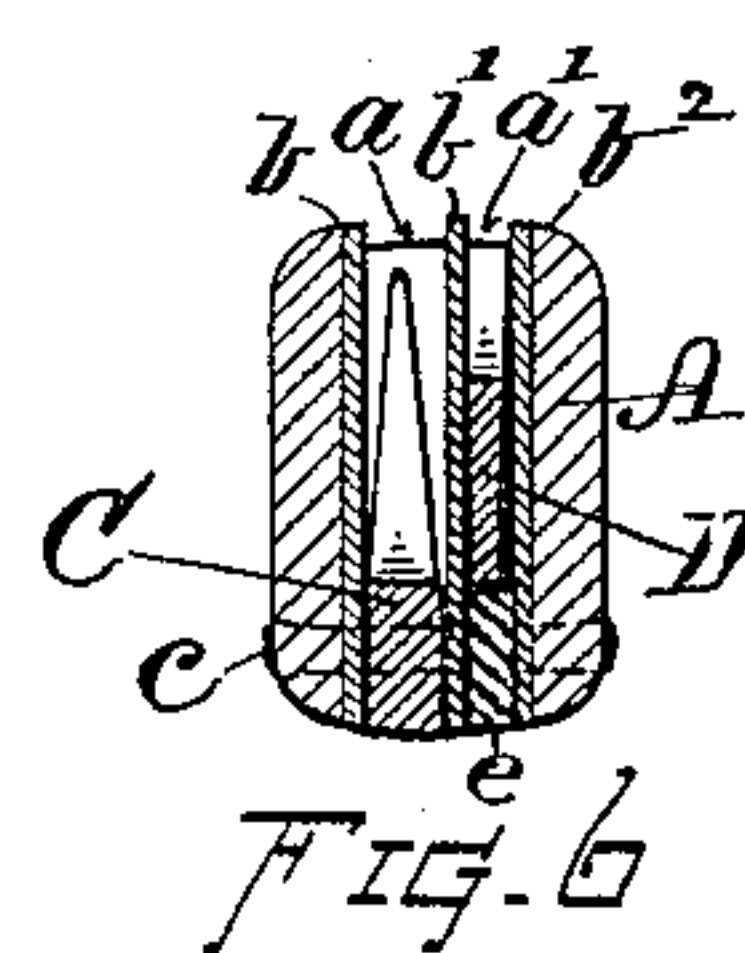
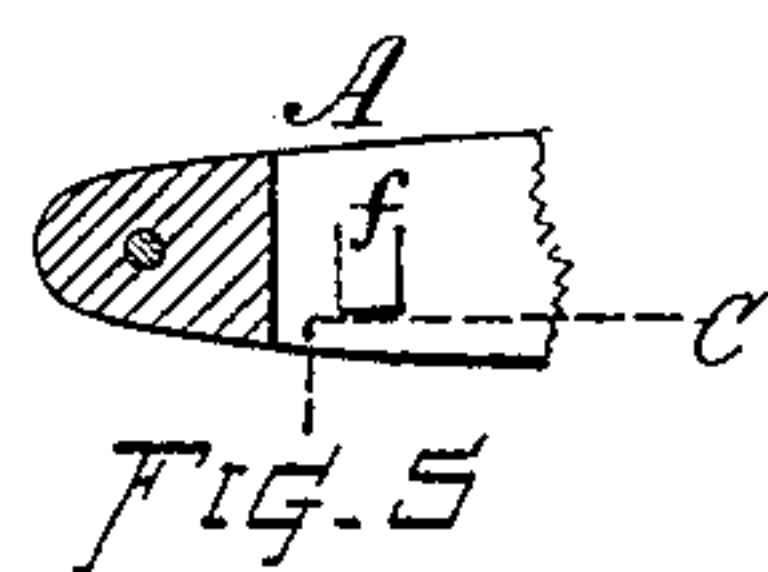
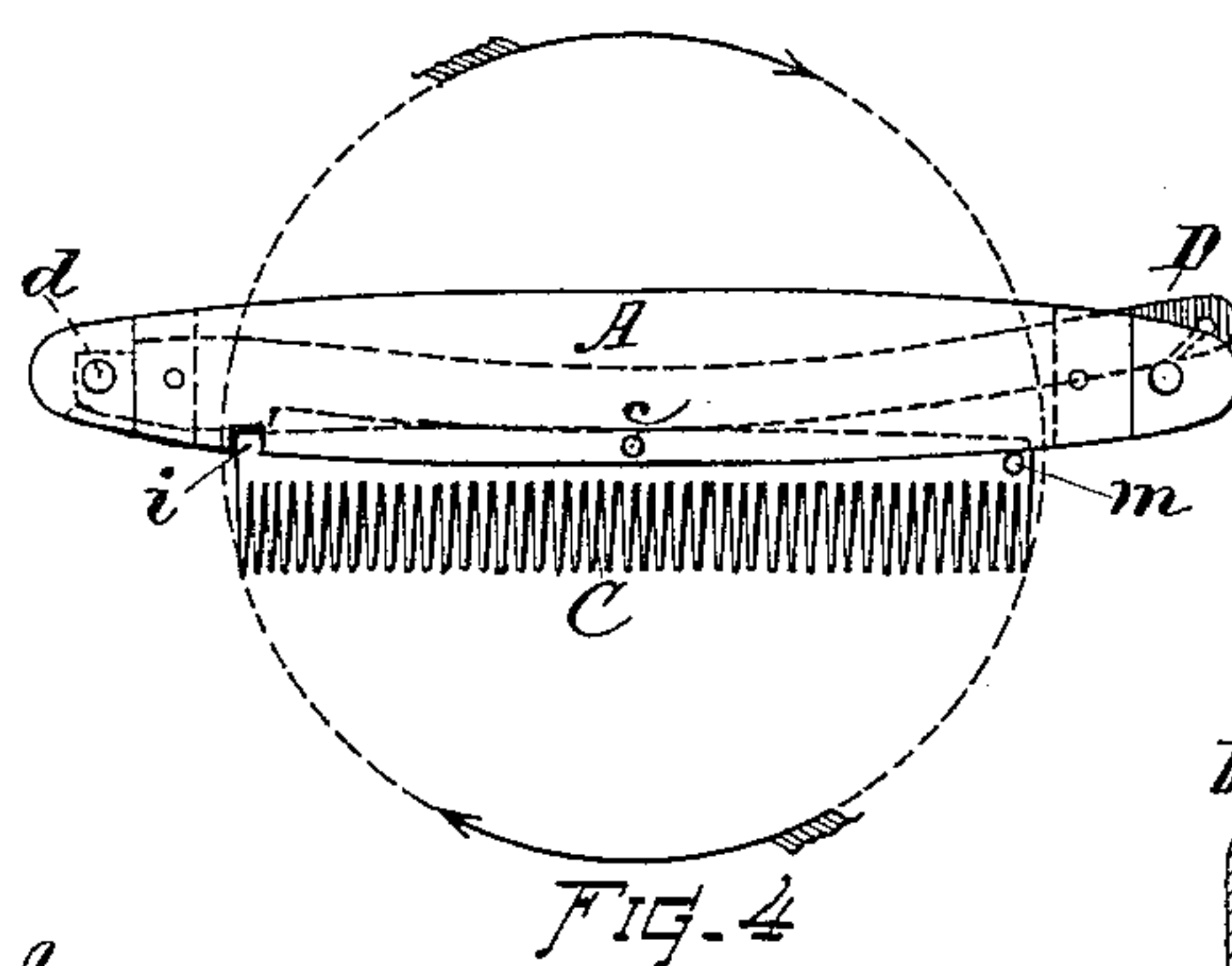
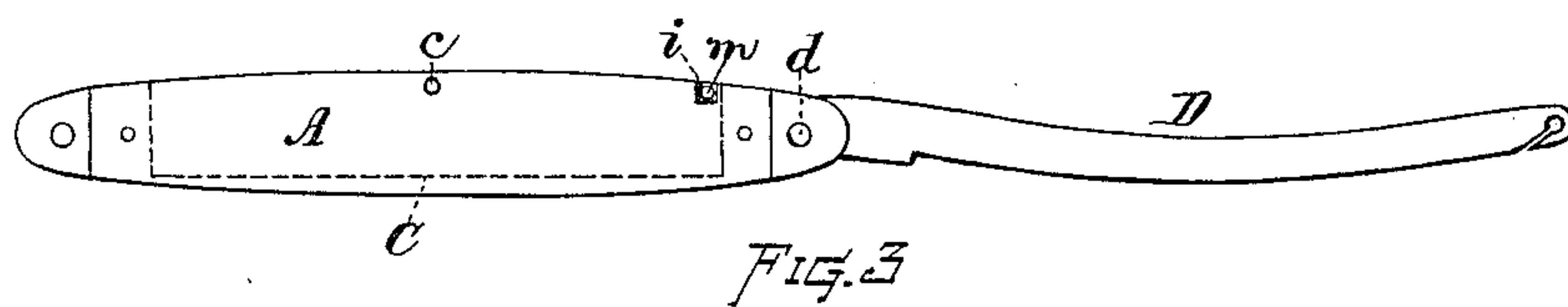
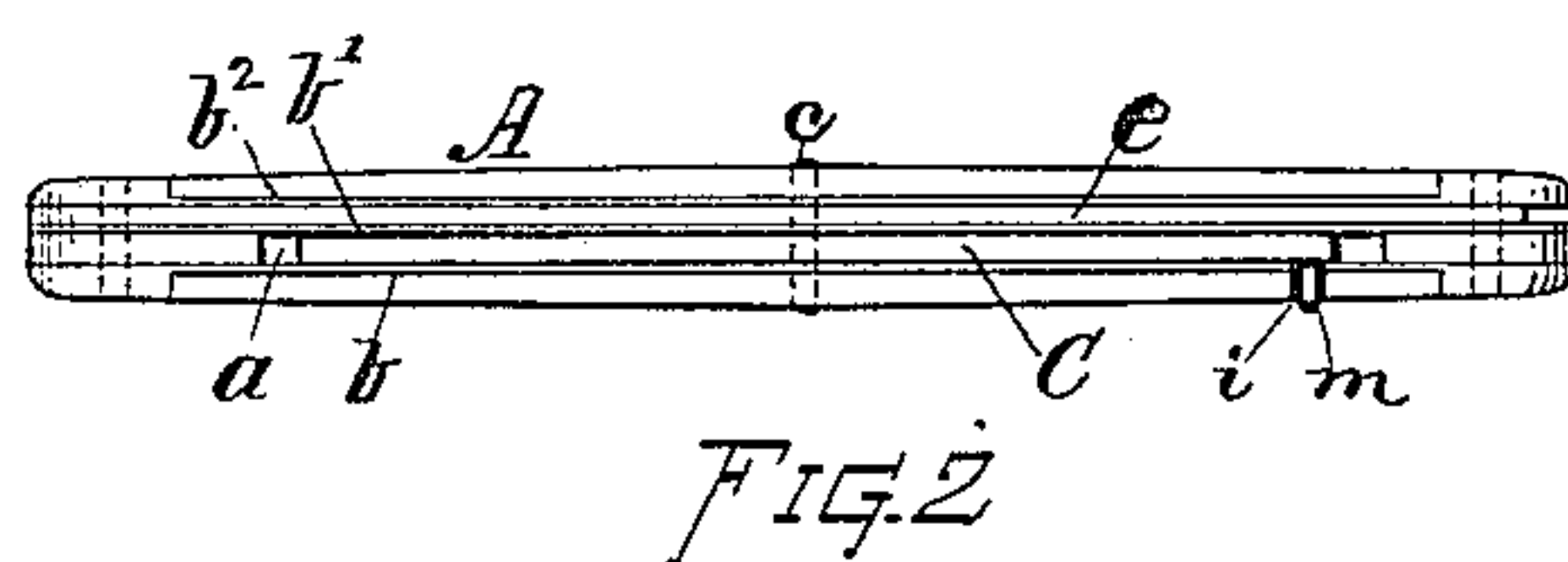
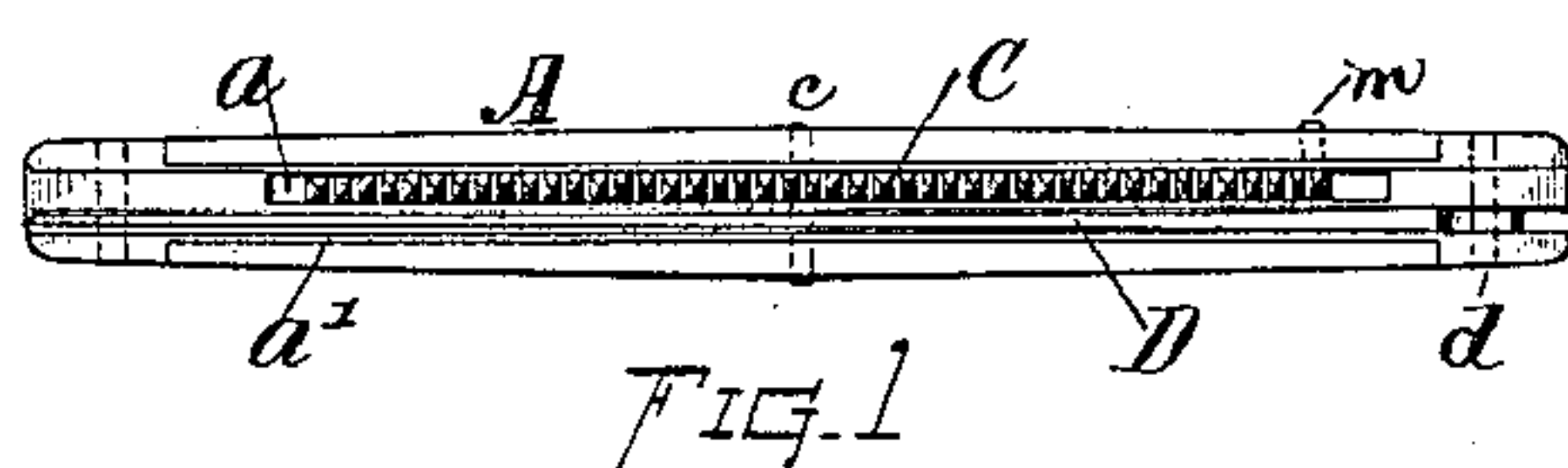
(No Model.)

S. BALL.

WEAVER'S COMBINED COMB AND REED HOOK.

No. 362,700.

Patented May 10, 1887.



WITNESSES

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# UNITED STATES PATENT OFFICE.

SAWYER BALL, OF COLOMA, MICHIGAN, ASSIGNOR TO PHINEHAS BALL, OF WORCESTER, MASSACHUSETTS.

## WEAVER'S COMBINED COMB AND REED-HOOK.

SPECIFICATION forming part of Letters Patent No. 362,700, dated May 10, 1887.

Application filed September 20, 1886. Serial No. 214,088. (No model.)

*To all whom it may concern:*

Be it known that I, SAWYER BALL, a citizen of the United States, residing at Coloma, in the county of Berrien and State of Michigan, have  
5 invented certain new and useful Improvements in Weaver's Combined Comb and Reed-Hook, of which the following, together with the accompanying drawings, is a specification sufficiently full, clear, and exact to enable persons  
10 skilled in the art to which this invention appertains to make and use the same.

The object of my present invention is to provide a weaver's combined comb and reed-hook that will be convenient, durable, and desirable  
15 for use.

To this end my invention consists in an instrument of this class in which the comb is centrally pivoted through its back midway of the length of the handle for opening and closing by rotation about said pivot, and wherein  
20 the handle, comb, and reed-hook are constructed and disposed in the peculiar manner set forth in the following description and claims.

In the drawings, Figure 1 is a front view of a combined comb and reed-hook embracing my improvements. Fig. 2 is a back view of the same. Fig. 3 is a side view showing the comb closed and reed-hook open. Fig. 4 is a side  
30 view showing the hook closed and the comb opened. Fig. 5 is a longitudinal section at one end of the handle, and Fig. 6 is a transverse section on a larger scale.

In reference to parts, A denotes the handle, which is made, substantially as shown, with  
35 two longitudinal cavities or recesses,  $a$   $a'$ , between the several plates  $b$ ,  $b'$ , and  $b^2$  of which the handle is made. The reed-hook D is pivoted in the end of the handle, as at  $d$ , to swing  
40 out and to close longitudinally into the cavity  $a'$  in a well-known manner, and is held at positions of adjustment by the back spring,  $e$ .

The cavity or recess  $a$  extends completely through the handle A, and the comb C, which  
45 is made somewhat shorter than the cavity-space and of corresponding thickness, is introduced into said cavity and centrally pivoted by the stud  $c$ , which passes through the back of the comb at right angles to the plane of the comb-plate and forms an axis about which the ends  
50

of the comb can be revolved for reversing its position in a plane coincident with the plane of the comb. When in closed position, the back edge of the comb-plate is flush with the back of the handle and the teeth are turned within  
55 the cavity  $a$ . When opened or in the other position, the comb is reversed and the teeth stand outward, as indicated in Fig. 4.

The back of the comb-plate is embraced and confined by the handle-plates  $b$   $b'$ , so that the  
60 comb is held rigid and firmly against sidewise movement when in use. A small portion of one of the handle-plates is set up to form a spring or lug,  $f$ , (see Fig. 5,) past which the end of the comb swings when opened, and  
65 which serves to retain the comb at position of adjustment. This spring is punched up from the metal of the plate sufficiently far to slightly catch or bear against the comb, and only to a degree that will permit of the comb being  
70 pressed past it when force is applied for the purpose of rotating the comb on its axial pivot. The adjacent edges of the comb and spring-lug  $f$  are slightly beveled or rounded off to facilitate the depression of the spring by the mere back-  
75 ward pressure on the comb. A stud or pin,  $m$ , is fixed to the end of the comb-plate, which extends out through a recess,  $i$ , and serves as a stop for the comb when opened or closed, and as a lug or catch to aid in swinging the  
80 comb-plate on its axial pivot  $c$ .

I am aware that combs and reed-hooks have been combined before my invention, and that a combined comb and reed-hook has been heretofore patented in which the hook is arranged  
85 substantially as herein shown; and, also, that a comb has been pivoted transversely in the end of a handle which was provided at its aperture with a rigidly-projecting hook. I do not therefore claim novelty in such features. My  
90 invention relates to the particular construction and arrangement of the comb and handle as herein specified.

What I claim as of my invention, and desire to secure by Letters Patent, is—

1. A weaver's combined comb and reed-hook consisting of a handle, A, composed of longitudinally-disposed plates  $b$ ,  $b'$ , and  $b^2$ , having cavities or recesses  $a$   $a'$  between them, the hook D, pivoted, as at  $d$ , to close into the cav-  
100



ity  $a'$ , and the comb C, fitting between the handle-plates  $b b'$  within the cavity  $a$ , and centrally pivoted through its back midway of the length of the handle by the stud  $c$ , said comb  
5 being opened and closed by reversal of the comb-plate end for end within the cavity of the handles and upon the stud  $c$  as an axis, substantially as hereinbefore set forth.

2. The combination, with the handle and the  
10 reversible comb-plate centrally pivoted within

a cavity,  $a$ , extending through the handle, of the stud  $m$  and spring  $f$ , substantially as and for the purposes set forth.

Witness my hand this 4th day of September,  
A. D. 1886.

SAWYER BALL.

Witnesses:

M. A. MORSE,  
LAWRENCE C. FYFE.