

No. 646,645.

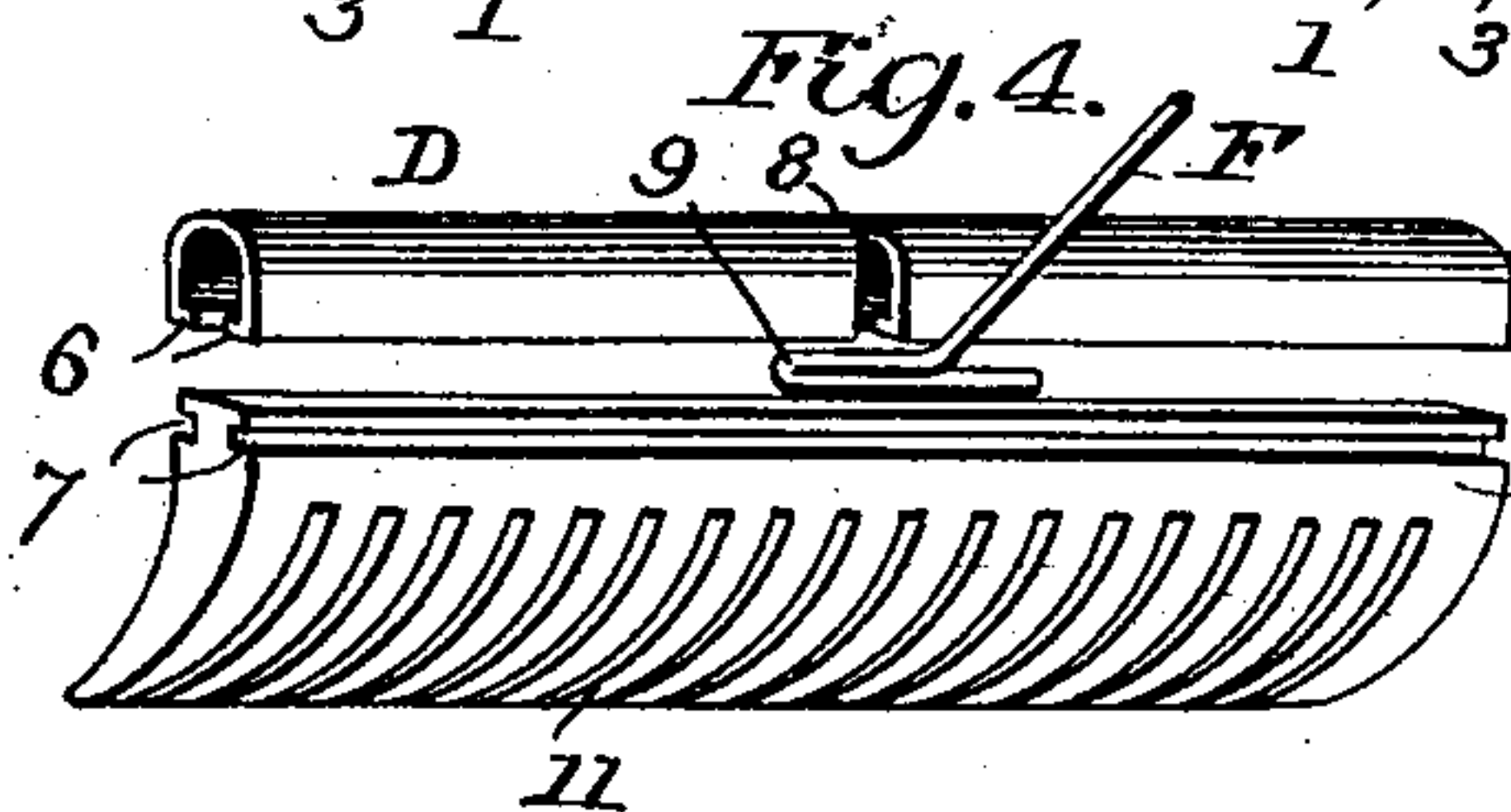
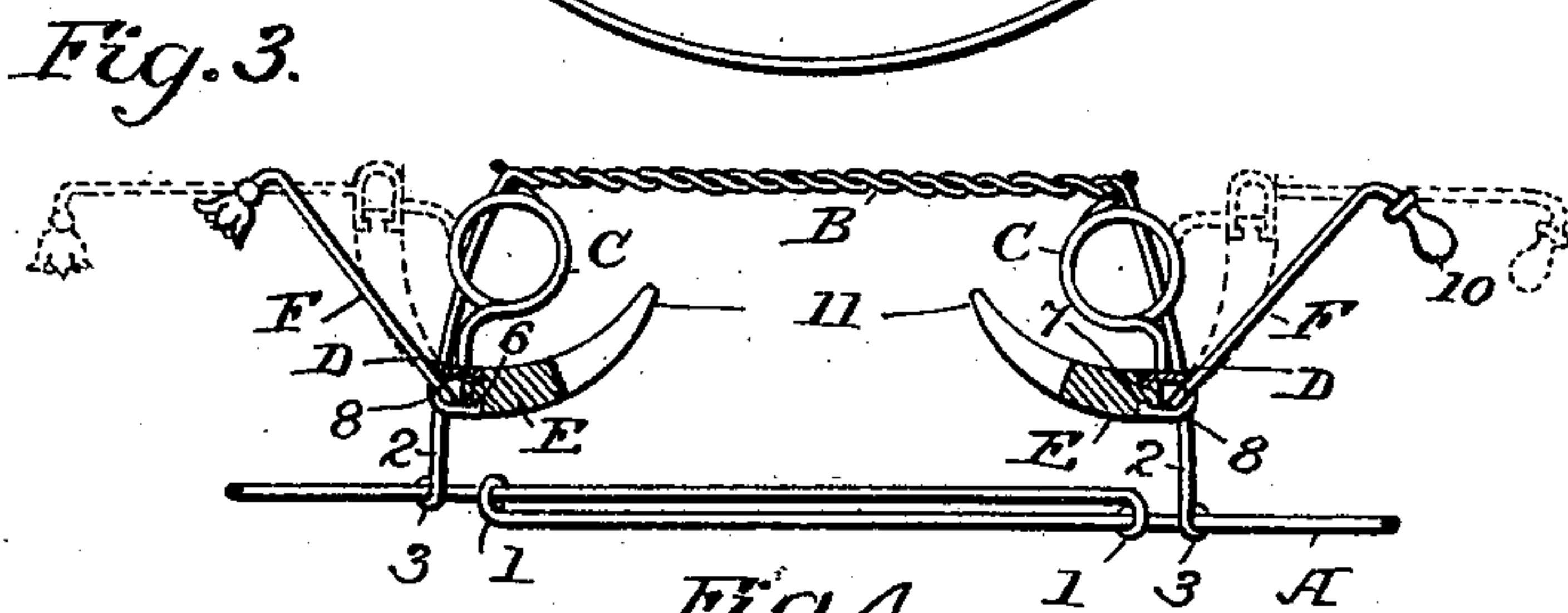
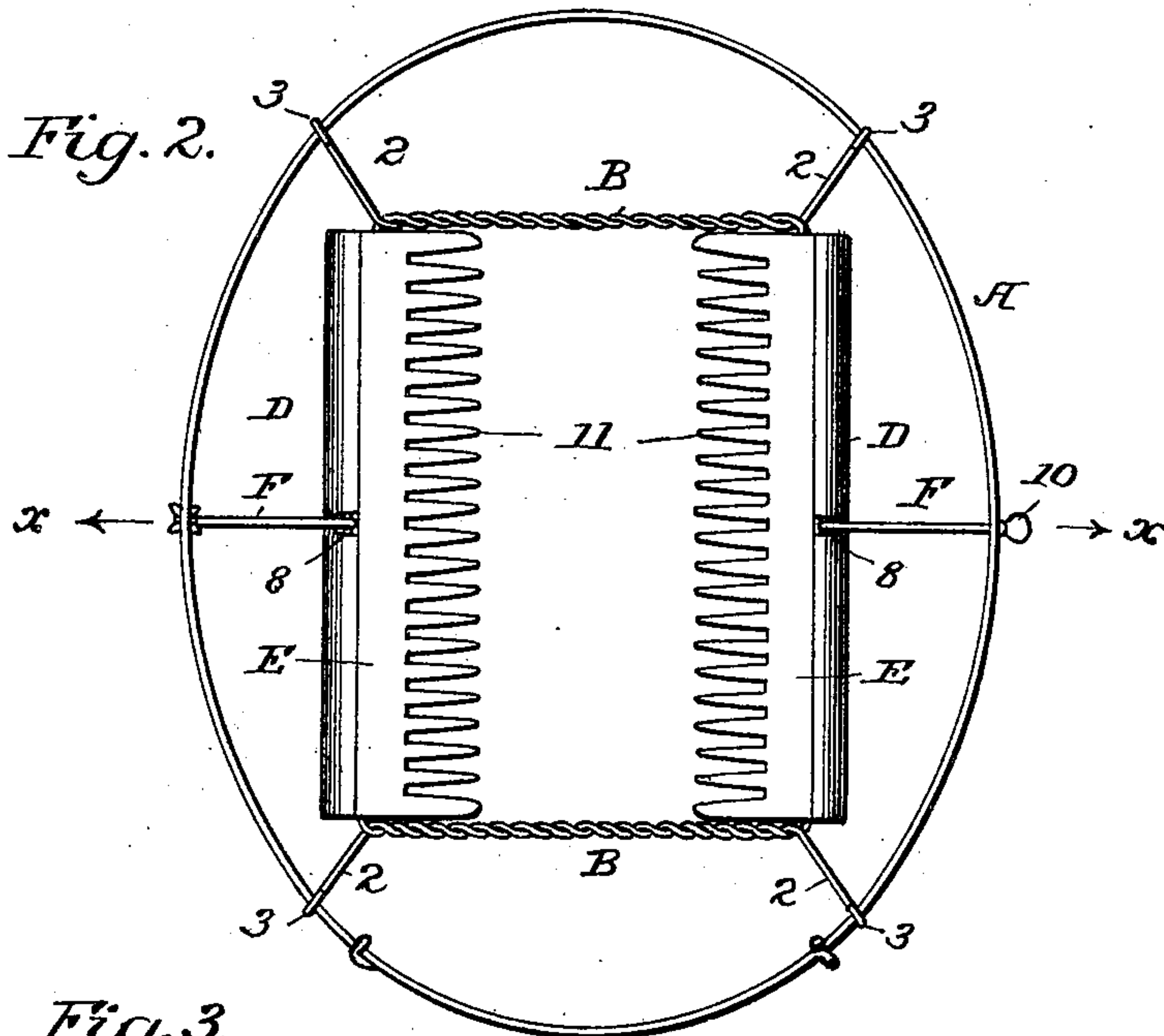
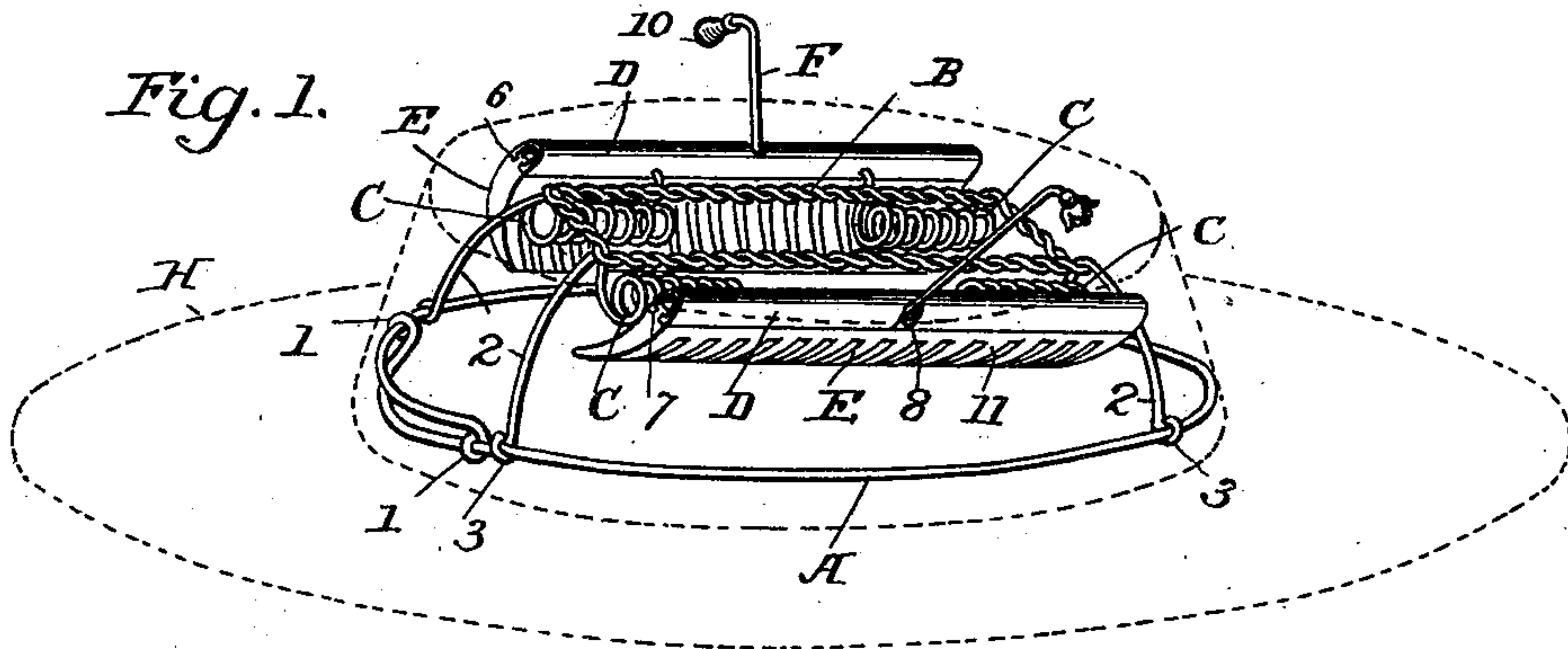
Patented Apr. 3, 1900.

H. P. KELLY & F. SPRUANCE.

HAT FASTENER.

(Application filed Sept. 25, 1899.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

HERBERT P. KELLY, OF BLACKSTONE, MASSACHUSETTS, AND FRANK
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HAT-FASTENER.

SPECIFICATION forming part of Letters Patent No. 646,645, dated April 3, 1900.

Application filed September 25, 1899. Serial No. 731,584. (No model.)

To all whom it may concern:

Be it known that we, HERBERT P. KELLY, residing at East Blackstone, in the county of Worcester and State of Massachusetts, and
5 FRANK SPRUANCE, residing at Philadelphia, (Oak Lane,) in the county of Philadelphia and State of Pennsylvania, citizens of the United States, have invented certain new and useful Improvements in Hat-Fasteners, of which the
10 following is a specification.

This invention relates to hat-fasteners designed for attachment to the interior of a hat and to be engaged with the hair of the wearer to hold the hat on the head.

15 The objects and nature of the invention will be fully set forth in the following specification, reference being had to the accompanying drawings, in which—

20 Figure 1 is a perspective view of a hat-fastener made in accordance with our invention, a hat being indicated in dotted lines to show the relative positions of the two. Fig. 2 is a bottom plan view of the fastener. Fig. 3 is a section on the line *xx* of Fig. 2 inverted.
25 Fig. 4 is a group of detached parts of the comb and operating-rod.

The supporting-frame of the device will preferably be made of spring-wire and consists of a ring A, adapted to fit within the
30 crown of the hat H, and this ring is made adjustable by overlapping its end portions and forming each end into an eye which receives the other end portion to slide freely thereon, so that the ring can be increased or decreased
35 in size to fit different sized or shaped hats. The upper part B of the frame will preferably be formed of twisted wire to give it the necessary rigidity, and this part is connected to the ring A by a series of posts 2, the lower
40 ends of which are bent to form eyes 3, through which the ring A extends loosely. The part B is of less circumference than the ring A and may be of any shape desired, and of course it will be obvious that the part B or second portion of the frame may be in some instances
45 arranged below the ring-shaped portion A. As shown it is substantially rectangular; but it may be oval, like the ring A, or round, if preferred.

50 C represents spiral springs, four being shown arranged oppositely in pairs. One end

of each spring is connected to the part B of the frame, and their other ends are secured to U-shaped pieces D, two of which are shown. Each piece is therefore supported intermediate the parts A and B of the frame by two
55 springs C C, which latter in effect form hinges for the pieces.

As shown, the edges of each piece D are turned inwardly toward each other to form
60 ribs 6, adapted to fit in grooves 7, formed in the sides of the back of a comb E. Each piece is also provided with a slot 8 in one of its sides substantially midway its length, and through
65 this slot an operating rod or lever F extends, such lever being formed with a foot-piece or enlargement 9, which will rest on the back of the comb when the parts are assembled and prevent the rod F from disengaging with the
70 comb. The rods or levers F will extend through the hat-crown to the outside and may have their outer ends bent and be provided with ornamental heads 10.

The teeth 11 of each comb will preferably be so curved that they will correspond, substantially, to the curvature of the path of
75 travel of the comb when swung upon its hinges. This is best indicated in Fig. 3, where the comb is indicated in full lines in one position and in dotted lines in its other position, and
80 it will be seen that such lines form approximately the arc of a circle struck from the center of a hinge C. The advantage of such shape and arrangement of the combs is that the teeth will enter and be withdrawn from
85 the hair by endwise movement only and they will not therefore disarrange or muss the hair. Further, when the teeth have been withdrawn, as indicated by their dotted-line position, it
90 will be seen that they extend substantially parallel with the direction in which the hat is naturally lifted from the head. The same is true also in putting the hat on, as the combs will then also occupy the position shown in
95 dotted lines, thus permitting the hat to be properly adjusted.

The combs being suspended on the spring-hinges will be absolutely free to adjust themselves when entering the hair, and consequently will not in any way injure the head
100 of the wearer, as they might do if hinged on fixed pivots.

In use it will be preferable that all parts of the fastener except the comb be between the hat and its lining, the comb projecting without the latter. This, however, is not essential.

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It is obvious that details of construction of the several parts of the device may be modified, and hence we do not limit our invention to the precise details of construction shown.

10 For instance, it is obvious the spring-hinges and the operating-rods might be connected to the combs in other ways than that illustrated and described, also that the supporting-frame might be of different form and construction, 15 without departing from the spirit or sacrificing any of the advantages of our invention.

Having described the invention, we claim—

1. In a hat-fastener, the combination with a frame comprising a ring-shaped portion adjustable as to circumference, and a second 20 portion connected to the ring-shaped portion, of hair-engaging devices pivotally mounted upon the said second portion of the frame, substantially as described.

25 2. In a hat-fastener, a frame adapted to be secured within the hat-crown, a spiral spring connected at one end to the frame, a comb attached to the other end of said spring, the spring forming a hinge for the comb, and the 30 teeth of the latter being curved longitudinally to form substantially the arc of a circle struck from the axial center of said spring, substantially as and for the purpose set forth.

35 3. In a hat-fastener, a frame having a lower ring formed of spring-wire and adjustable as

to circumference, combined with a pair of oppositely - arranged combs, spiral spring-hinges connecting said combs to the frame, and operating-rods connected to the combs, substantially as set forth.

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4. In a hat-fastener, a frame comprising the adjustable ring A formed of spring-wire, and the part B and connecting-posts 2, combined with two pairs of spiral springs secured to the part B of the frame on opposite sides 45 thereof, oppositely - arranged combs respectively connected to a pair of the spiral springs and operating-rods extending through the hat-crown and connected to the respective combs, substantially as set forth.

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5. In a hat-fastener, the combination with the frame and the spiral spring-hinges, of a U-shaped piece D having its edges turned inwardly to form ribs, and one side provided with a slot 8, a comb having grooves in the 55 sides of its back to receive the said ribs, and a rod F having a footpiece 9 to engage the back of said comb when the rod extends through the slot, substantially as set forth.

In testimony whereof we have signed our 60 names to this specification in the presence of subscribing witnesses.

HERBERT P. KELLY.

FRANK SPRUANCE.

Witnesses to signature of Herbert P. Kelly:

ALBERT B. ESTES,

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