

(No Model.)

C. HAUSSMAN.

HANDLE ATTACHMENT TO BOWLING BALLS.

No. 287,927.

Patented Nov. 6, 1883.

Fig. 1.

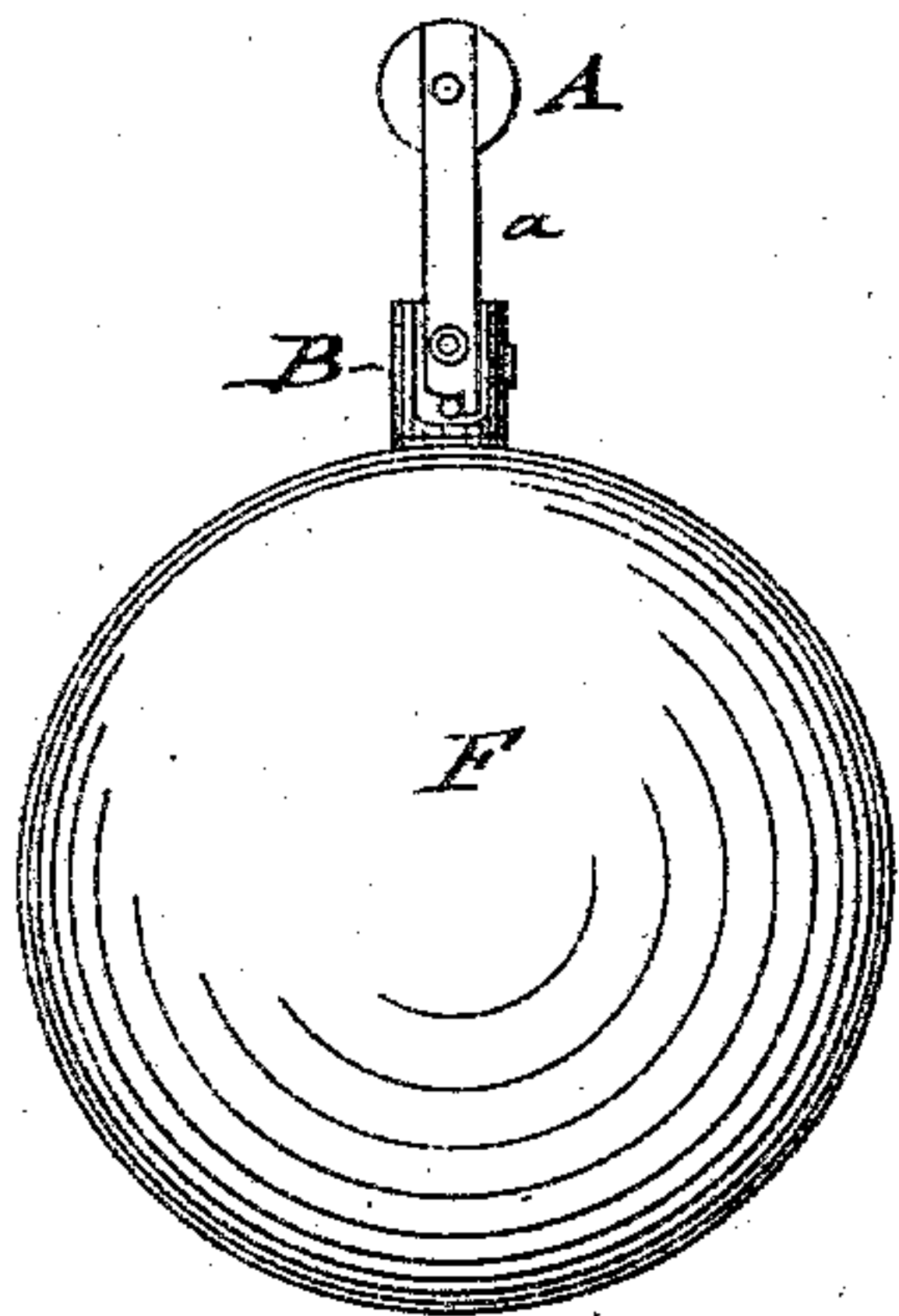


Fig. 2.

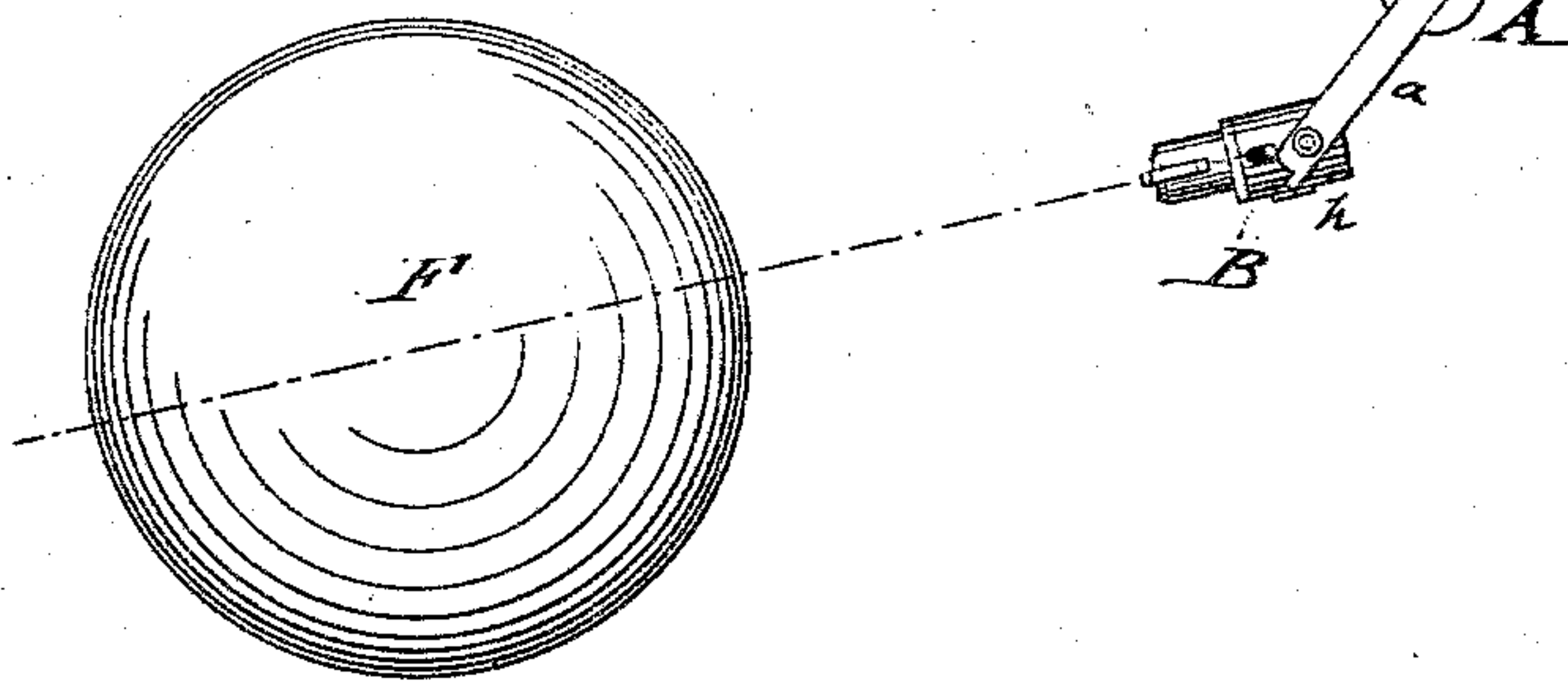


Fig. 3.

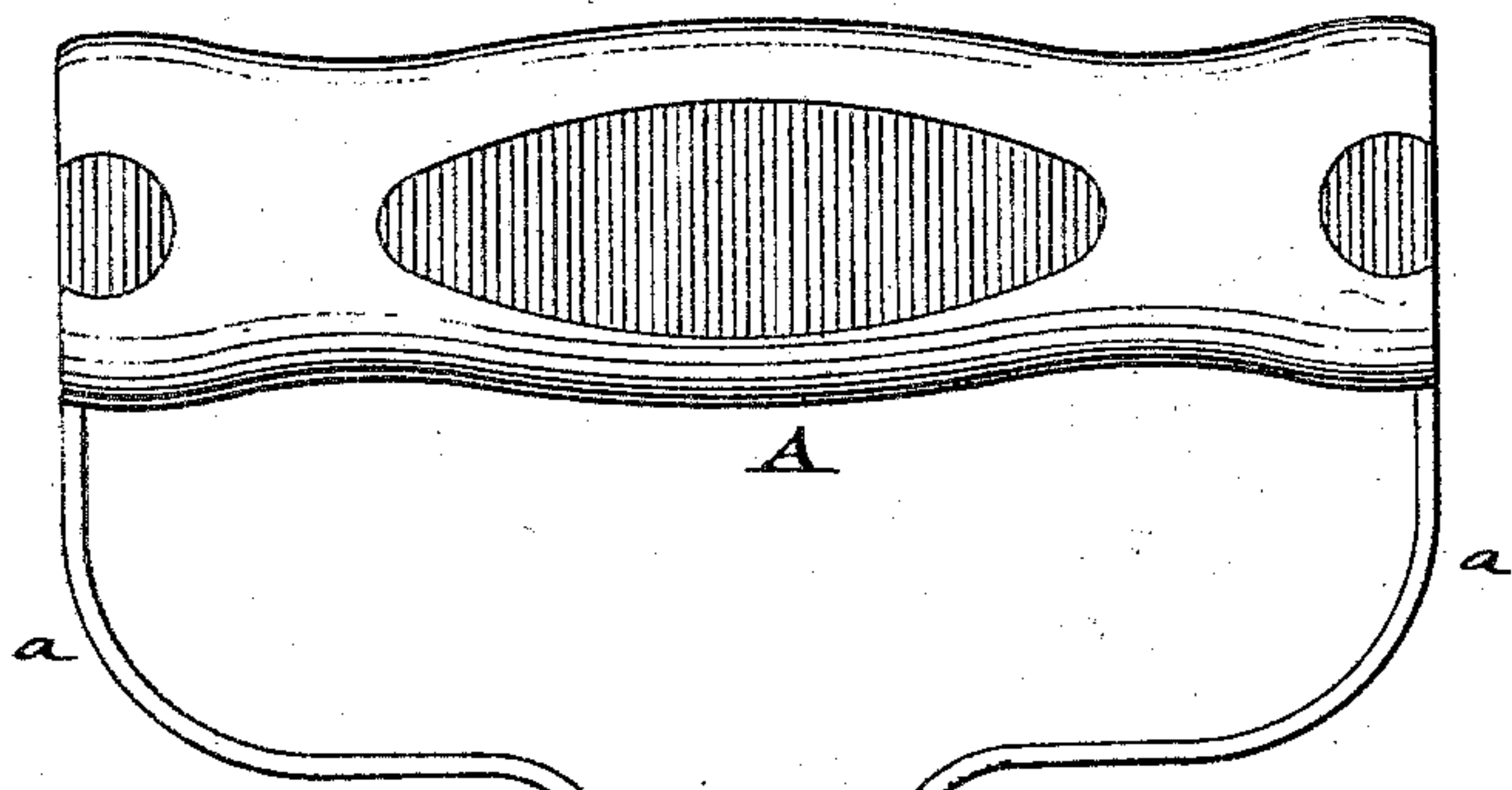


Fig. 4.

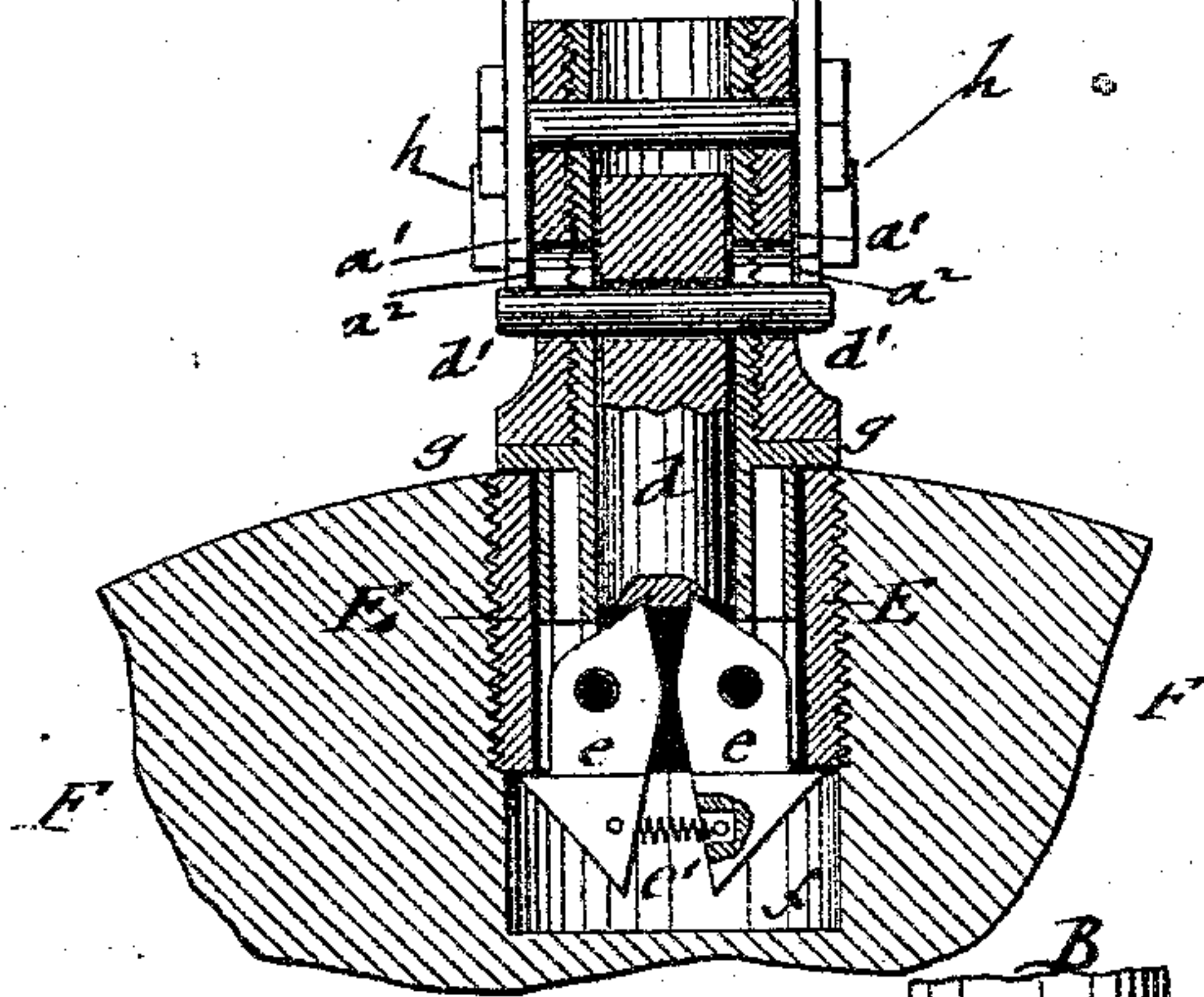
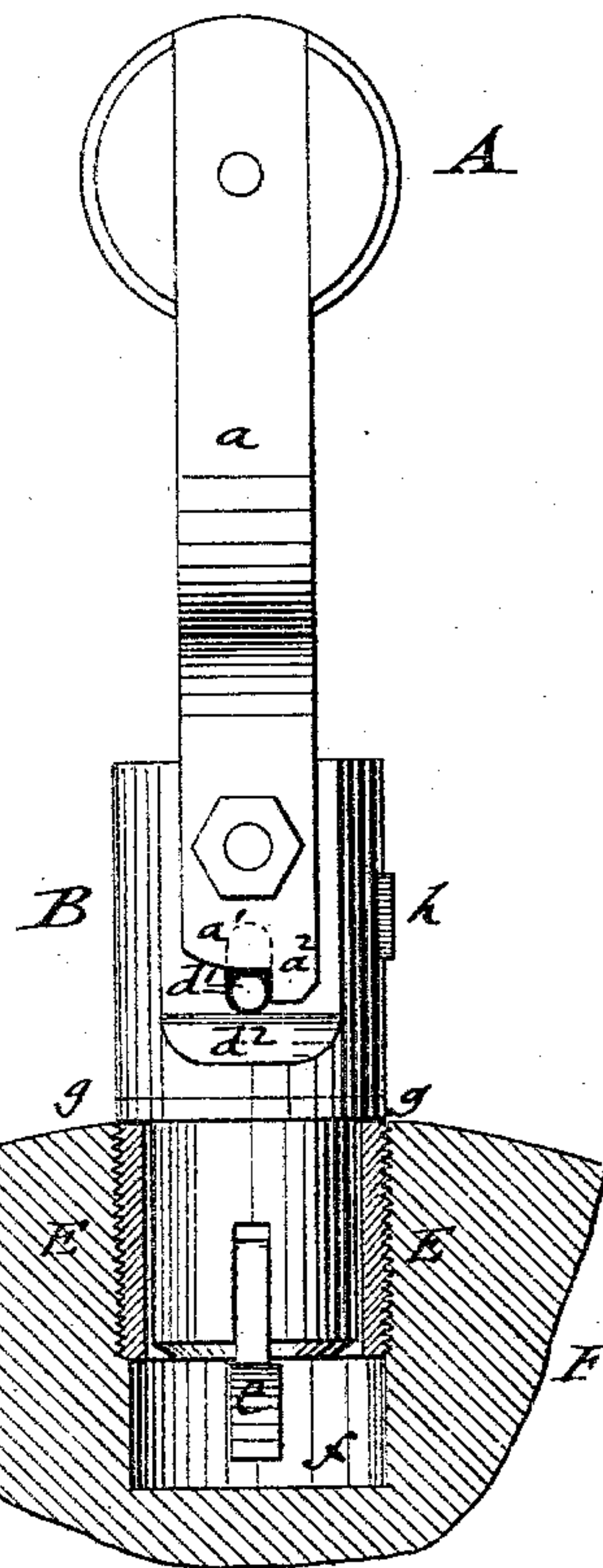
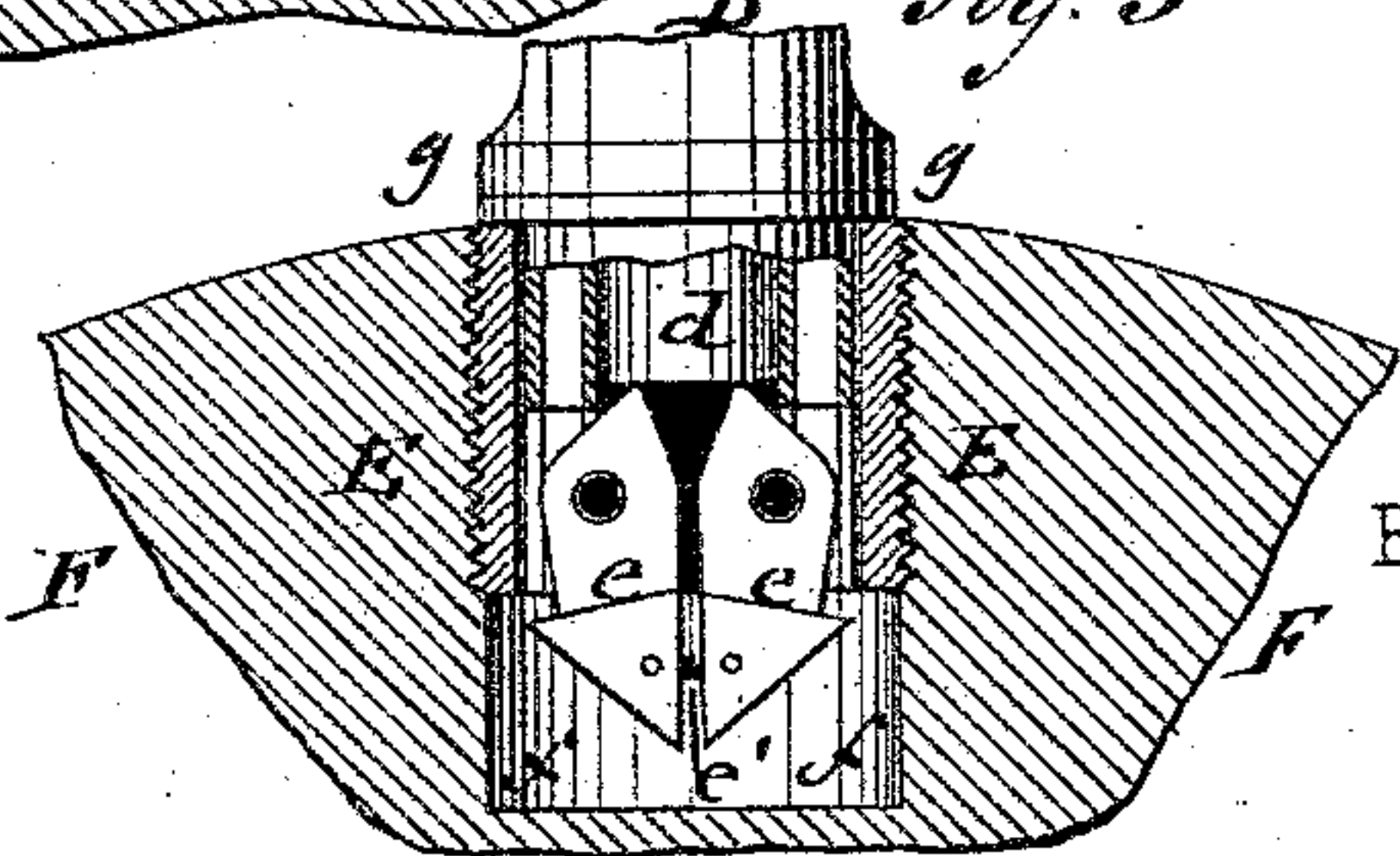


Fig. 5.



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HANDLE ATTACHMENT TO BOWLING-BALLS.

SPECIFICATION forming part of Letters Patent No. 287,927, dated November 6, 1883.

Application filed September 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HAUSSMAN, of the city, county, and State of New York, have invented certain new and useful Improvements in Handle Attachments to Bowling-Balls, of which the following is a specification.

This invention relates to an improved handle attachment for bowling, whereby the ball is not taken hold of in the usual manner, but by means of a detachable handle that is inserted into a socket-hole of the ball; and the invention consists of a handle that is inserted by a pivoted shank into a bushed socket of the ball, and then locked by suitable means into said socket until the ball is to be released therefrom by the player.

In the accompanying drawings, Figure 1 is a side view, showing a bowling-ball with my improved handle attached thereto. Fig. 2 shows the handle attachment released from the ball, the latter being shown in the act of being thrown. Fig. 3 is a side view of the handle, partly in vertical section, and drawn on a larger scale. Fig. 4 is an end elevation of the handle, shown as inserted into the socket of the ball; and Fig. 5 is a vertical central section of the handle, showing it in the act of being detached from the socket of the ball.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents a handle that is rigidly attached at the ends to suitable bent metallic arms, *a a*, which are provided to the upper end of a hollow shank, B. The lower ends of the bent arms *a a* are made in the shape of cams, *a' a'*, and provided with stops *a²* at one side. At the interior of the hollow shank B is arranged a slide-piece, *d*, to the upper end of which is keyed a fixed transverse pin, *d'*, that projects through slots *d²* of the shank B. The cross-pin *d'* is located in the path of the cams *a' a'* of the arms *a a*, and is engaged by them when the handle is placed vertically in line with the shank B, but released by them when the handle A and its arms *a a* are placed at an obtuse angle to the shank, as shown, respectively, in Figs. 1 and 2. In one case the cams *a' a'* move the interior slide-piece, *d*, downward, while in the other case the slide-piece is moved in upward direction by means of a suitable spring.

To the lower end of the slide-piece are fulcrumed locking-catches *e e*, which project below the lower end of the shank B. The slide-piece *d* engages the upper ends of the catches *e e*, and forces them outwardly when pressure is exerted on the slide-piece by the cams *a' a'*, so as to engage the lower end of a metallic sleeve or bushing, E, that is rigidly screwed into a socket-hole, *f*, of a bowling-ball, F. The sleeve E is made of less length than the socket-hole *f*, so that there is sufficient room for the locking-catches *e e* below the bushing. The catches *e e* are connected by a spring, *e'*, in such a manner that they are drawn together when the pressure of the slide-piece *d* is released, so as to clear thereby the bushing, as shown in Fig. 5. The shank B is provided with a shoulder, *g*, that abuts against the outer edge of the bushing E when the shank is inserted into the socket-hole. A transverse stop-plate, *h*, is attached to the shank B, back of the lower ends of the bent arms *a a* of the handles, as shown in Fig. 4, the stop-plate limiting the motion of the pivoted handle on the shank, and retaining the handle at an obtuse angle to the shank as soon as the cams *a' a'* at the lower ends of the arms *a a* have cleared the cross-pin *d'*, as shown in Fig. 2. In this position of the handle the shank is then swung up into line with the shank B, whereby the slide-piece *d* is pressed down and the catches *e e* caused to engage the inner edge of the bushing E, so as to lock the handle to the ball. After the handle is thus inserted the ball is lifted and swung forward and back by the arm. When it is desired to throw the ball and release it from the handle, a sudden backward jerk is given thereto when the ball is at the forward end of the swing. The inertia of the ball causes the shank to assume a position at an obtuse angle to the handle, as shown in Fig. 2, and at the same time the release of the locking-catches from the bushing, so that the ball flies away from the handle with considerable force. The ball is fully in the control of the player until he desires to send it off to the pins by giving the releasing jerk to the handle.

With the attachment heavy balls can be thrown with comparative ease and kept fully

within control, so that less strong persons can throw the heavy balls, and with good effect. The game of bowling may thereby be practiced even by weaker persons, as they can control the balls and play them without fatigue.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a bowling-ball having a socket-hole, of a detachable handle and means to which the handle is locked to or released from the ball, substantially as set forth.

2. The combination of a bowling-ball having a socket-hole and a screw-bushing of less depth than the socket-hole with a detachable handle and means whereby the handle is locked into the socket-hole or released therefrom at will, substantially as described.

3. The combination of a bowling-ball having a socket-hole and a screw-bushing of less depth than the socket-hole, a detachable handle formed of a pivoted handle portion and a hollow shank, means whereby the shank is locked into the socket-hole, and means whereby it is released from the same, substantially as set forth.

4. A handle attachment for bowling-balls, composed of a handle portion, a hollow shank pivoted to the handle, locking spring-catches

at the lower end of the shank, and means whereby the catches can be actuated by the handle, substantially as described.

5. A handle attachment to bowling-balls consisting of a handle portion, A, bent arms *a a*, a hollow shank, B, pivoted to the arms *a a*, spring-catches fulcrumed to the lower end of the shank, and an interior slide-piece, *d*, having a cross-pin, *d'*, at its upper end, said cross-pin being engaged by cams *a' a'* and stops *a²* at the lower ends of the handle-arms *a a*, substantially as specified.

6. The combination of a handle portion, A, a shank, B, pivoted to the lower ends of the handle, a stop-plate, *h*, back of the lower ends of the handle, spring-catches *e e*, fulcrumed to the lower end of the shank, and an interior slide-piece, *d*, actuated by the handle ends, so as to cause the spreading or drawing in of the spring-catches, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CHARLES HAUSSMAN.

Witnesses:

PAUL GOEPEL,
CARL KARP.