

(No Model.)

P. A. LEE.

SHELL CAPPER AND EXTRACTOR.

No. 374,482.

Patented Dec. 6, 1887.

Fig. 1.

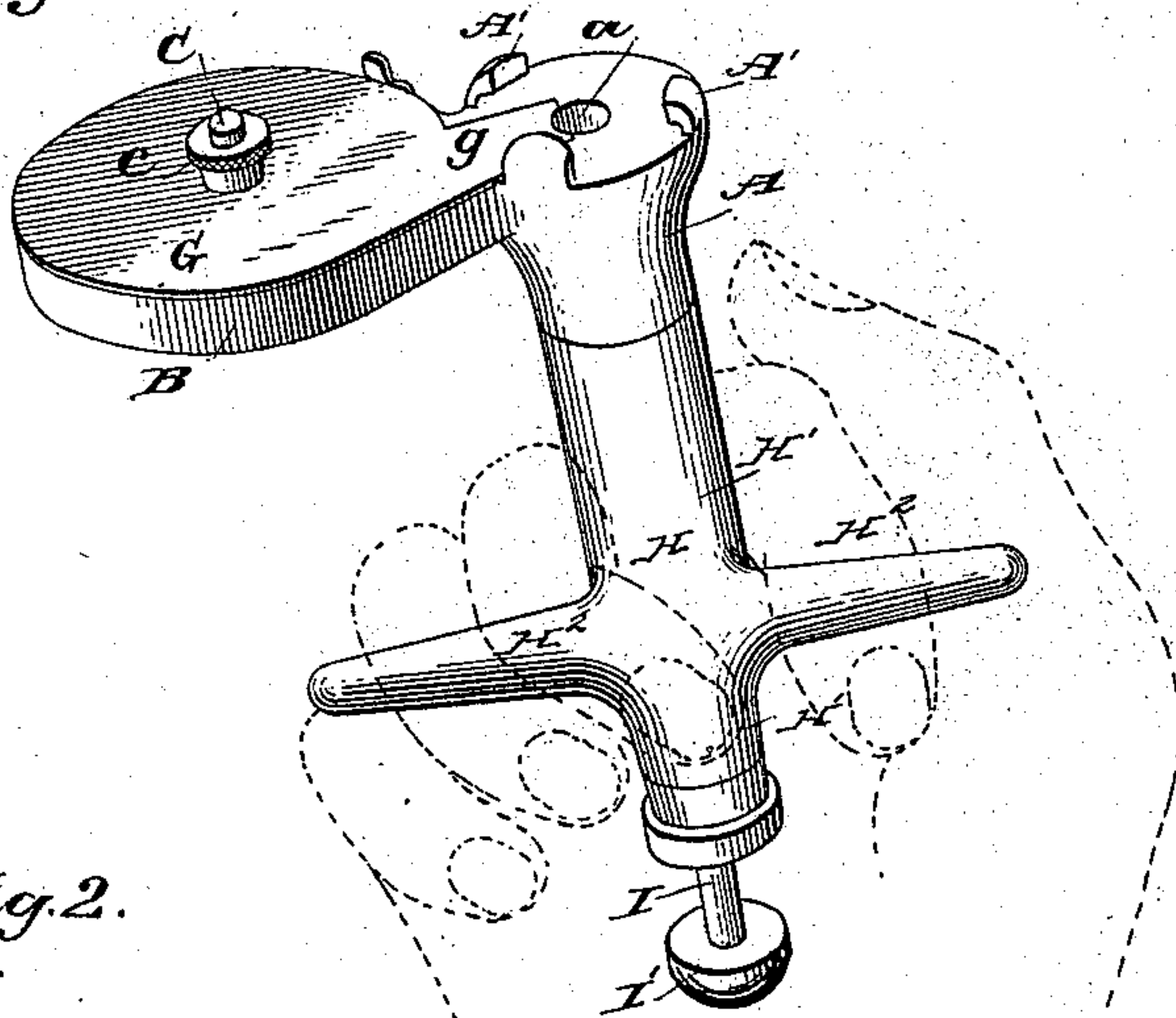


Fig. 2.

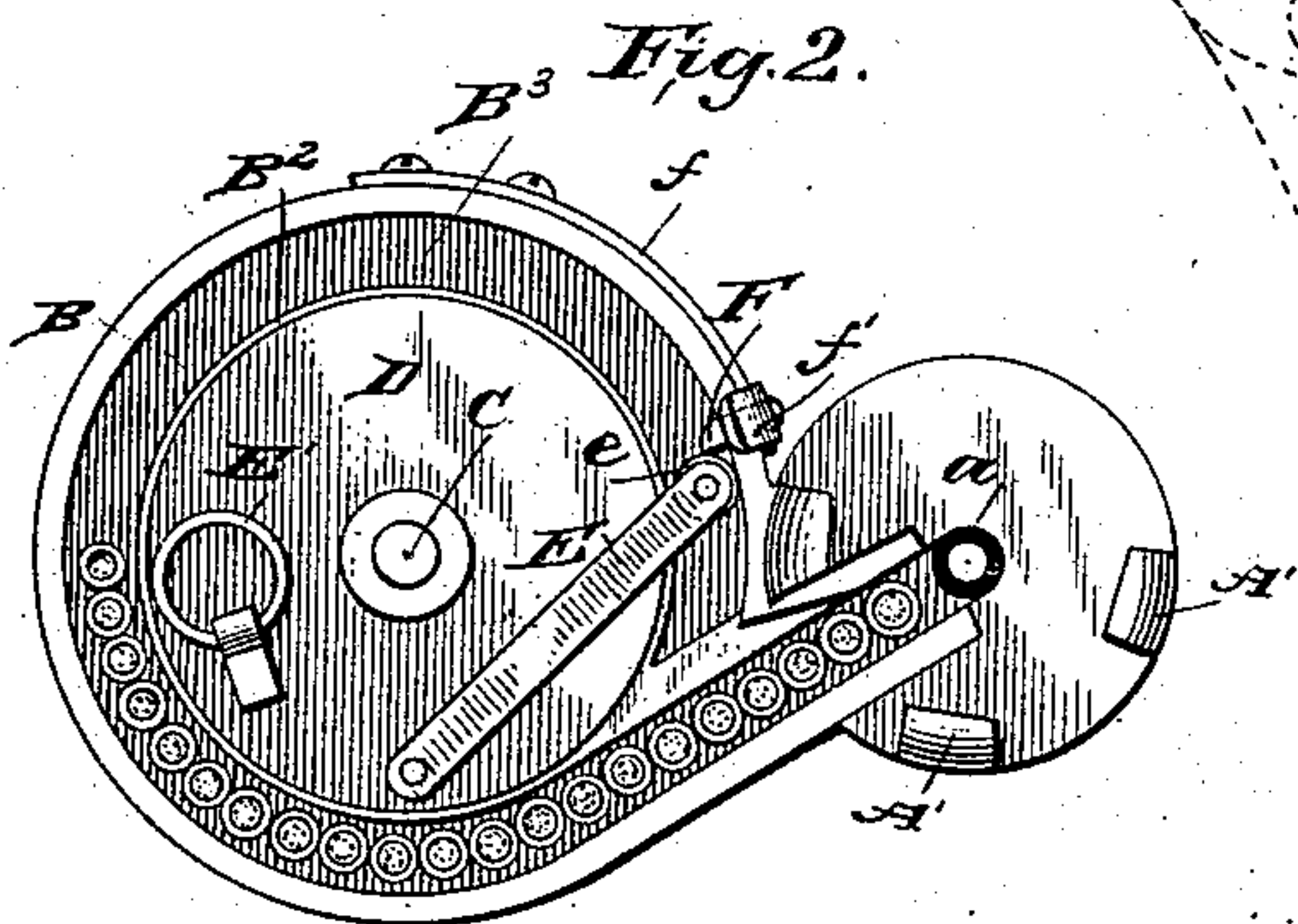


Fig. 3.

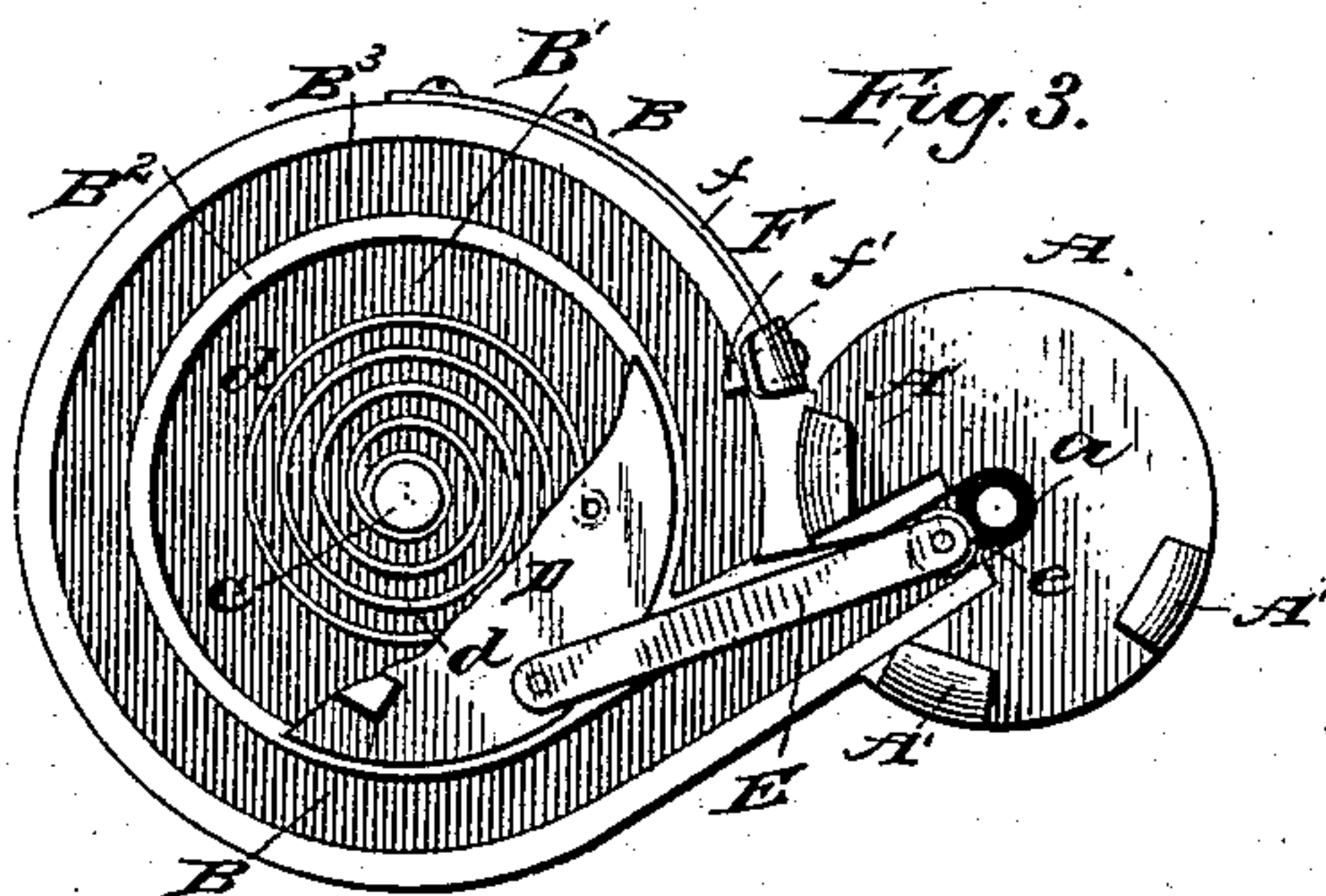
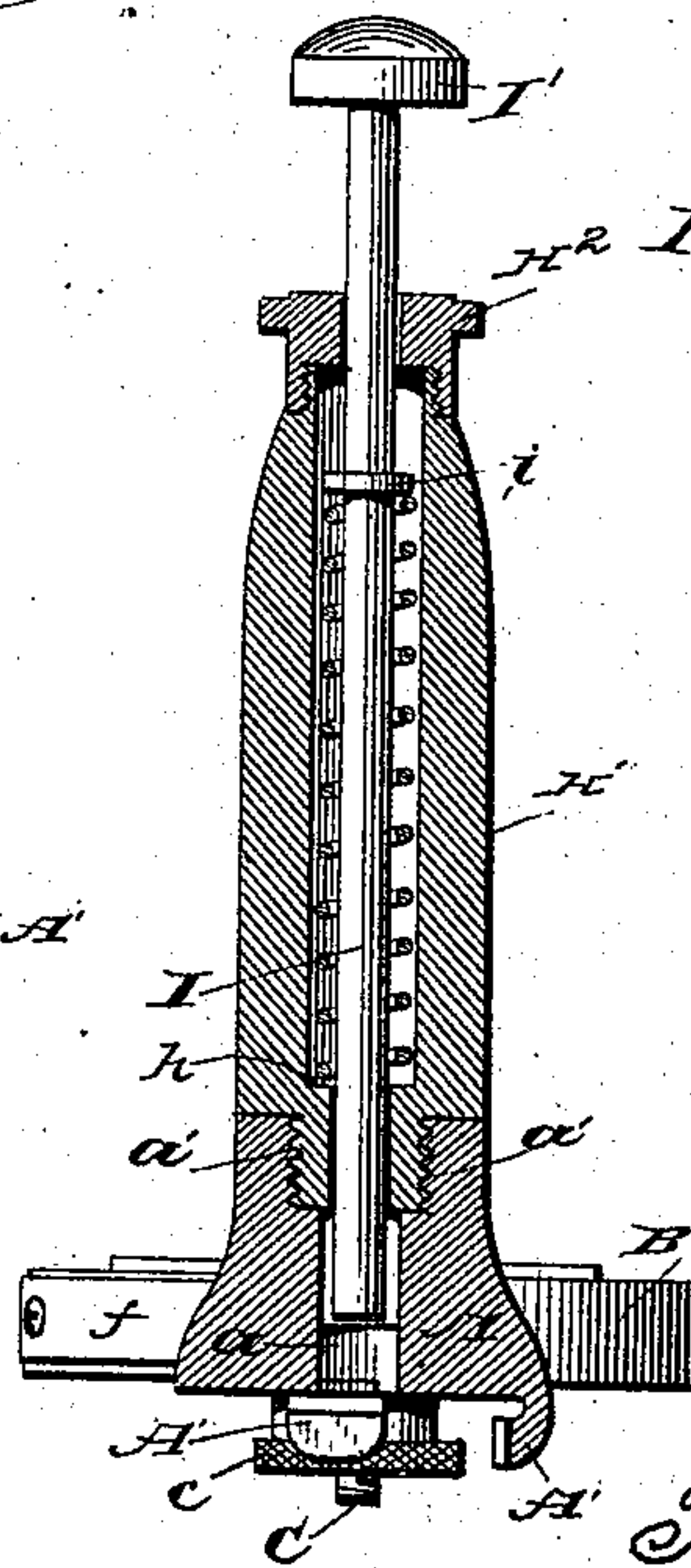


Fig. 4.



WITNESSES:

Fred G. Dietrich
John H. Kemou

INVENTOR:

P. A. Lee
BY Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

PEYTON ALEXANDER LEE, OF COUSHATTA, LOUISIANA.

SHELL CAPPER AND EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 374,482, dated December 6, 1887.

Application filed April 20, 1887. Serial No. 235,545. (No model.)

To all whom it may concern:

Be it known that I, PEYTON ALEXANDER LEE, a citizen of the United States, residing at Coushatta, Red River parish, State of Louisiana, have invented certain new and useful Improvements in Shell Cappers and Extractors, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view. Fig. 2 is a bottom plan view, the magazine-cover being removed and the follower being retracted and locked. Fig. 3 is a similar view to Fig. 2, with the follower projected or extended as it would be when the caps are exhausted or discharged from the magazine. Fig. 4 is a vertical section on line *xx* of Fig. 2.

The object of the invention is to provide a shell-capper in which the caps shall be automatically and continuously fed to a point in alignment with the capping-plunger.

The invention will be first described, and then specifically pointed out in the claims.

A represents the shell holder and extractor, provided with a central vertical aperture, *a*, and a threaded socket, *a'*, at the upper end of said aperture. The lower or outer face of the holder A has the usual holding-lugs, *A'*, cast or otherwise secured thereto, for receiving the flange of a shell.

B represent the cap-magazine, which is cast in one piece with the holder A and extends at right angles to the vertical plane of the holder. The lower or outer face of the magazine has a circular recess, *B'*, formed therein, and between the wall *B²* of said recess and the outer edge of the magazine a groove, *B³*, is formed concentric with the said recess *B'*, and constituting a cap-track. The delivery end of the track or groove *B³* communicates with the central aperture, *a*, in the holder A, so that as the caps are fed from the track they will pass into the said aperture, for a purpose to be presently described.

C is a post or stud projecting from the center of the recess *B'*, and on which the disk D revolves. A spring, *d*, is coiled around the post C and connected thereto at one end, its other end being connected to the inner face of the said disk.

E is a follower pivoted at its inner end to the outer surface of the disk D near one edge

thereof, and having a small anti-friction roller, *e*, or other suitable projection on the inner face of its outer end, to travel in the track or groove *B³* in rear of the caps.

E' represents a finger-ring for use in revolving the disk D to coil the spring around the post C.

F is a catch projecting through the side of the magazine into the cap-track at its rear or inner end. This catch is secured to a plate-spring, *f*, having a finger-piece, *f'*, and attached to the outer side of the magazine to press the catch inward, so that when the disk D is rotated to bring the follower E to its retracted position the said catch will snap behind the anti-friction roller *e* and lock the disk and follower until the caps are all in place in the track, when the cover G may be secured in position over the disk, track, and follower and held by the nut *c* screwing on the outer end of the post C. The end *g* of the cover fits within rabbets in the outer face of the holder at opposite sides of the delivery end of the track, so as to be flush with said outer face, and the outer edge of the end *g* is notched to conform to the aperture *a*.

H represents the hand-piece, cast in the shape of a cross, the vertical arm *H'* being apertured longitudinally and having a screw-threaded projection at its lower end to enter the socket *a'* in the holder A, so as to be readily separated for packing away.

I represents the capping-plunger, which passes down through the hand-piece and into the aperture *a* to a point in line with the bottom of the cap track or recess. The plunger I has a collar, *i*, and a spiral spring upon the plunger bears at its upper end against this collar and at its lower end against a shoulder, *h*, in the aperture, so that the spring will force the plunger outward. *H²* is a cap screwing upon the upper end of the arm *H'*, and apertured to allow the plunger free movement. The plunger has a suitably-formed head, *I'*.

The operation is as follows: The cover G is first removed and the disk rotated by means of its ring to bring the follower to the position shown in Fig. 2. The caps are then placed in the track or groove *B³* open ends up. The cover is then secured in place and the catch F drawn outward, so as to let the force of the coil-spring *d* be exerted upon the disk

and follower. The hand-piece is now grasped by the operator, the arm H' passing between the middle fingers, the transverse arms H being grasped by the fingers, and the head of the plunger I resting against the palm of the hand. A shell is now introduced between the holding jaws and the fingers contracted, so as to force the plunger outward, which action will cause a cap to be forced out of the aperture α into the recess therefor in the head of the shell. The follower will now force another cap into position, when the operation may be repeated until the cap-magazine is emptied.

The implement may also be used as an extractor, as will be readily understood.

It is manifest that the hand-piece may be cast in one piece with the holder and magazine, if desired, and that the mechanism for operating the cap-follower and capping the shells may be varied without departing from the spirit of my invention.

It will be noticed that the delivery end of the cap-track extends beyond the edge of the magazine into the capper, and that the pivoted follower will pass beyond the circle described by the main part of the cap-track into said delivery end in order to force every cap therefrom. The follower therefore automatically forces every cap out of the magazine into the cap-receiving space in the path of the capper, which has never been accomplished heretofore.

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

1. The combination, with the shell-holder having a capper, of a magazine at right angles to the holder and having a cap-receiving track, the delivery end of which terminates in a space in the path of the capper, and a spring-impelled follower to automatically force the caps out of the magazine into the path of the capper, substantially as set forth.

2. The combination, with the shell-holder having a capper, of a magazine at right angles thereto and provided with a circular cap-track, the delivery end of which extends at an angle to the body of the track and terminates in the path of the capper, a rotary spring-operated plate or disk, and a follower pivoted thereto and extending at its free end into the cap-track, to force the caps automatically therefrom through the offset delivery end into the path of the capper, substantially as set forth.

3. The combination, with the shell-holder having a capper, of a magazine having a cap-receiving track at right angles to the holder, the delivery end of the track terminating in a space in the path of the capper, a spring-impelled follower for automatically forcing the caps along the track and out of the magazine, and a catch extending into the magazine from the outside for locking the follower in its retracted position, substantially as set forth.

4. A combined shell extractor, capper, and magazine, comprising the holder having the

shell extracting and holding jaws, and a central cap-receiving space in the path of the plunger between the jaws, and the magazine having a cap-track at right angles to the plunger and terminating in the said cap-receiving space, and a spring-impelled follower for automatically forcing the caps out of the magazine into the cap-receiving space, whereby a shell-flange may be inserted in and held by said jaws and the shell capped by operating the plunger with the hand holding the implement, substantially as set forth.

5. The combination, with the shell-holding head and its plunger, of the cap-magazine having a circular recess, a central post therein, a rotary disk, a spring coiled around the post and connected to the disk, a follower pivoted to the outer face of the disk near the edge thereof, and having an anti-friction roller or equivalent projection on its free end entering the cap-track formed around the circular recess, said tracks communicating with the plunger-aperture, and the movable cover closing the magazine, substantially as set forth.

6. The combination of the longitudinally-apertured shell-holder having a cap-receiving space at one end of said aperture, and a series of hooked flange-holding jaws concentric with said space, with the longitudinally-reciprocating plunger within said longitudinal aperture and adapted to force a cap from said space and seat it on the shell held by said jaws, substantially as set forth.

7. The combination, with the longitudinally-apertured shell-holder having flange-retaining jaws at its outer end, and a cap-receiving space located centrally between said jaws and in alignment with said aperture, of the removable hand-piece provided with a reciprocating plunger fitting within said longitudinal aperture and constructed to force the cap from its space and seat it on the shell held by the jaws, substantially as set forth.

8. As a new article of manufacture, a hand implement for extracting and capping shells, comprising the apertured holder having lugs or jaws, the hand-piece screwing upon the holder, the spring-operated cap-seating plunger, the cap-magazine, the circular recess therein having a central post, the coil-spring around the post, the rotary disk connected to said spring, the cap-track leading to the aperture in the holder below the plunger, the follower pivoted to the disk near its edge and having an anti-friction roller entering the cap-track in rear of the caps, the spring-catch projecting through the side of the magazine into the rear end of the track to hold the follower retracted, and the removable cover and securing-nut, substantially as set forth.

PEYTON ALEXANDER LEE.

Witnesses:

D. M. HERIOT,
H. R. JONES.