

(No Model.)

H. T. HAZARD.

CARTRIDGE SHELL CRIMPER.

No. 332,712.

Patented Dec. 22, 1885.

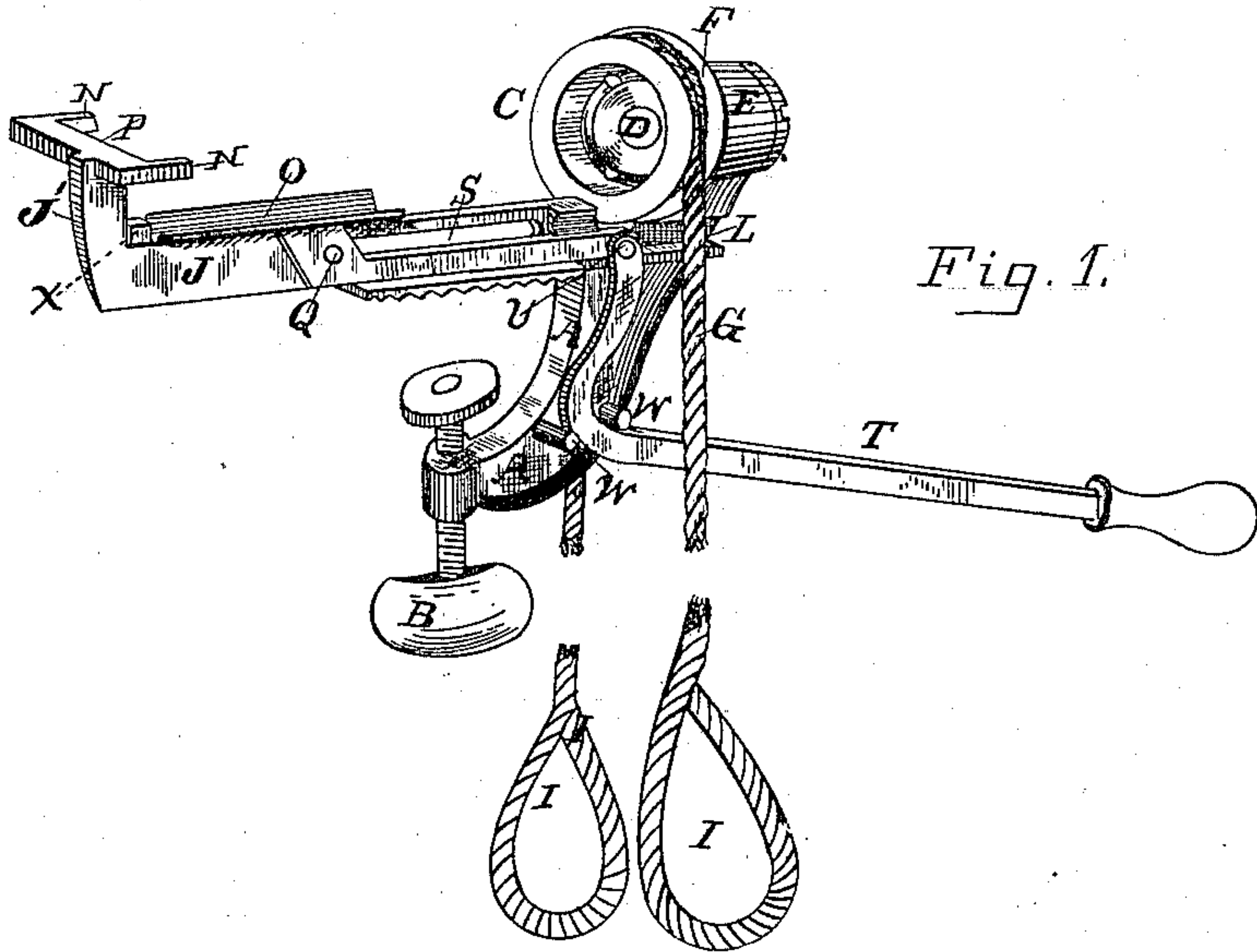


Fig. 1.

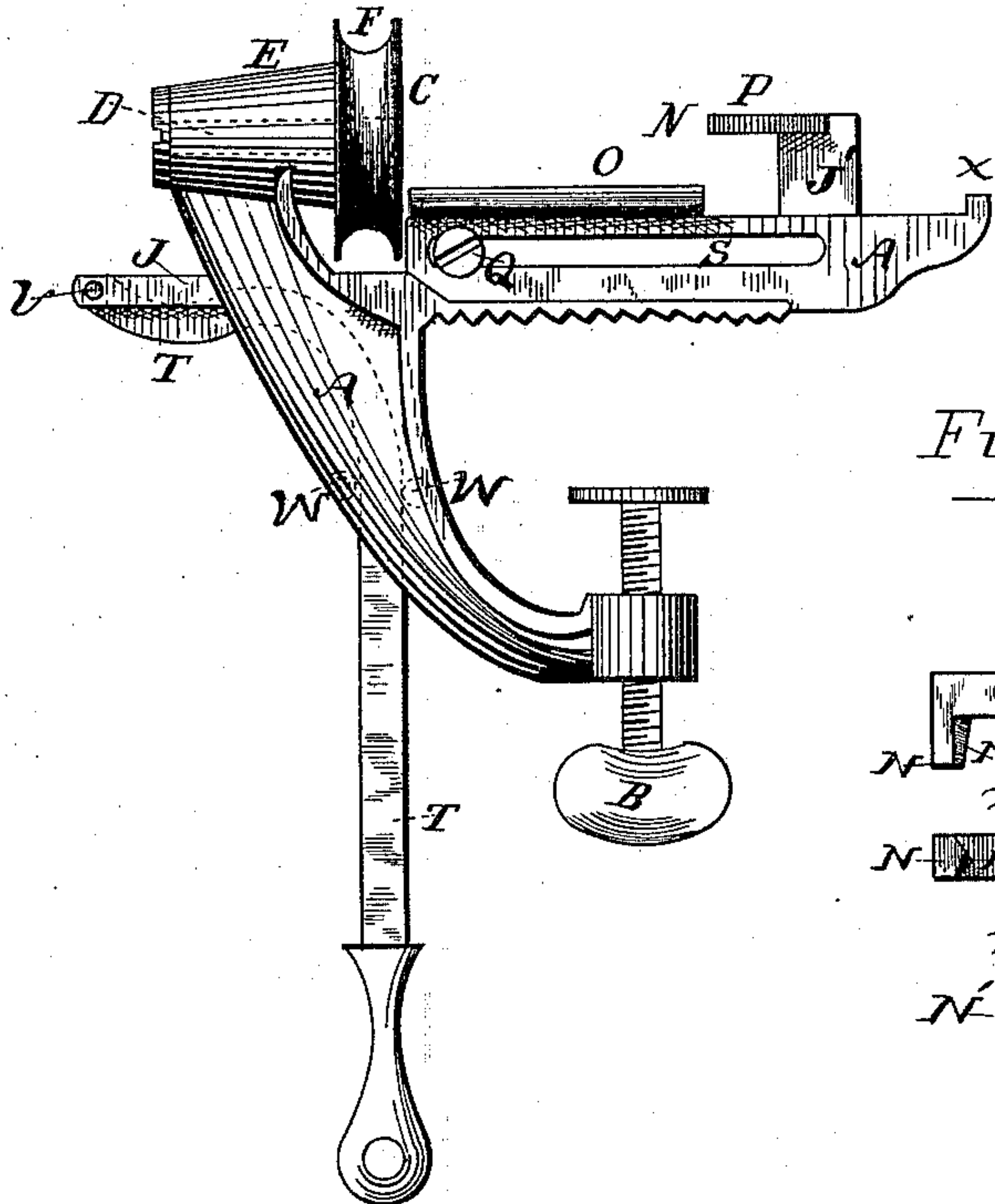


Fig. 2.

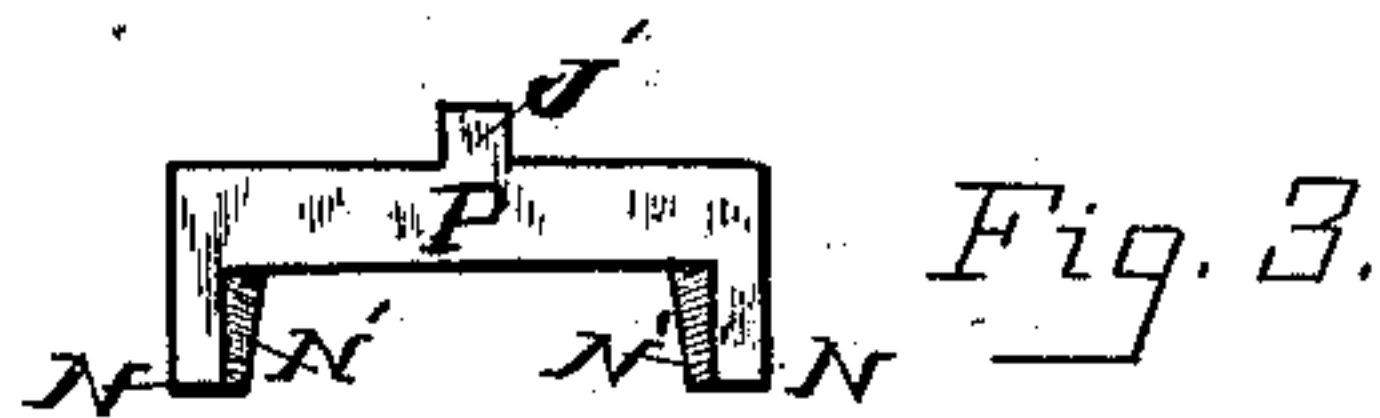


Fig. 3.



Fig. 4.

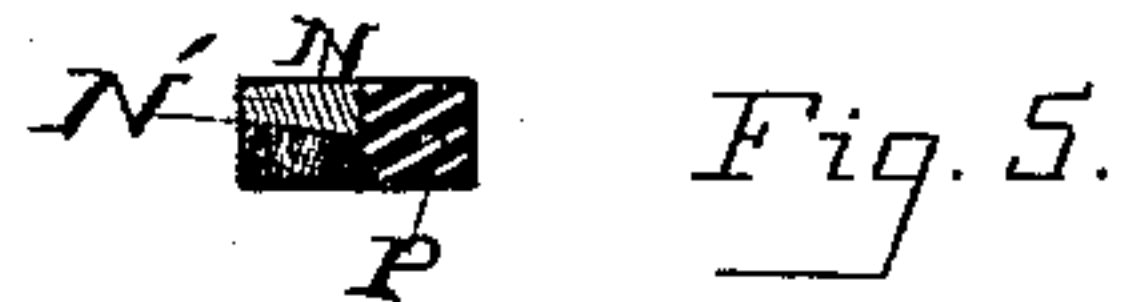


Fig. 5.

Witnesses.

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## CARTRIDGE-SHELL CRIMPER.

SPECIFICATION forming part of Letters Patent No. 332,712, dated December 22, 1885.

Application filed August 17, 1885. Serial No. 174,618. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY THOMAS HAZARD, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Implements for Crimping Paper Cartridge-Shells, of which the following is a specification, reference being had to the accompanying drawings.

10 In order to secure the wad that covers the shot and prevent it from getting loose and falling out in paper shells, it becomes necessary to close the end of the shell by turning it inward. This is usually accomplished by inserting the open end of the shell in a shallow circular groove cut in the face of a disk and converging toward the bottom thereof, along which small knobs are mounted at intervals. By rotating the disk and pressing the shell  
20 firmly into the groove the walls of the shell are turned inward and securely crimped down upon the charge. To crimp any considerable number of shells with the implements now known, becomes a work of considerable magnitude, very laborious and tedious. This is  
25 avoided by employing my device herein described.

The object of my invention is to provide means for the convenient and forcible rotation  
30 of the grooved disk, and to secure convenient means for forcibly inserting the shell in the groove and pressing it against the end thereof until it is properly crimped or closed, and to also provide means for withdrawing the  
35 shell from the crimping-disk and from the clamp after the crimping has been accomplished. I attain this by means of the device described herein, and illustrated in the accompanying drawings, in which—

40 Figure 1 is a perspective view of my invention. Fig. 2 is an elevation of the same, presenting the reverse side. Fig. 3 is a plan view of the shell-clamp. Fig. 4 is a front elevation of the same. Fig. 5 is a cross-section on line  
45 *xx*, Fig. 4.

A is the frame, and clamps upon the table by means of the thumb-screw B. The crimping-disk C is screwed upon a spindle, D, which passes through the journal E at the top of the  
50 frame. The disk C has a groove, F, upon its periphery, around which a cord, G, is passed,

so as to completely encircle the disk, crossing at the top, and dropping downward therefrom upon both sides of the disk, and having a loop, I, at each end. A carrier, J, is mounted  
55 in a runway, L, upon the side of the frame, and has a shell-platform, O, curved upon its upper side to fit a shell, and a shell-clamp, P, mounted upon a standard, J', at the rear of the carrier. The arms N of the clamp are  
60 beveled in such a manner as to form a sharp edge, N', upon their inner sides. The arms are mounted at a distance apart somewhat less than the diameter of the flange of the shell, and at such a height above the platform O  
65 that the edge of the flange of the shell will pass under the forward ends of the edges N'. The edges N' are inclined from the front downward and backward, so that when the carrier is advanced to force the shell into the groove  
70 the edges N' will come into contact at or near their mid-length with the flange of the shell, and above the center thereof, and when the shell is stopped by contact with the crimping-disk the inclined edges N' will cause the shell  
75 to become firmly wedged between the arms and the platform O, so that the shell will be securely retained by the clamp while the disk is rotating, and also when the carrier is thrown  
80 back again, thus withdrawing the shell from the groove in the crimper-disk. A small projection, X, extends from the frame upward into the path of the shell, so as to intercept it after it has been drawn away from contact  
85 with the crimping-disk, thus leaving the shell free to be removed from the platform O. The carrier J is secured to the frame by a screw, Q, which plays within a slot, S, in the frame. A curved lever, T, is attached to the front end of the carrier by a screw, V.  
90 This lever passes between two pintles, W W, which project from the side of the frame and serve as bearings against which the lever acts. The lever is bent forward, so that when it is depressed, as shown in Fig. 2, the upper end  
95 is thrown forward, thus forcing the carrier toward the crimping-disk. When the lever is elevated, the upper end recedes and the carrier is thrown back, thus withdrawing the shell from the crimper.

The operation of the crimper is as follows: It is clamped to a table, and the operator



places his feet in the loops I at the end of the cord. The lever is then elevated, thus throwing back the carrier to receive the shell, which is then placed upon the curved bed O in front of the clamp. The operator then depresses the lever, thus forcing the shell forward into the groove and securely wedging it between the arms N and the carrier-bed O. At the same time the operator moves his feet up and down alternately, keeping the cord taut. This rotates the disk rapidly and with great force, and as considerable pressure can be exerted by means of the lever the end of the shell is rapidly crimped down firmly upon the charge. The lever is then elevated, which throws the carrier back, the shell being retained between the arms N and the platform O until the shell comes into contact with the projection or stop X, which holds it while the clamp recedes from it and leaves it loose upon the platform O, to be removed therefrom by the act of placing an uncrimped shell thereon, when the operation is repeated, no attention being necessary to the shell on the platform O, as it will roll off upon placing the uncrimped shell thereon.

I am aware that devices for clamping shells have heretofore been employed in connection with a crimping-disk grooved upon its face, but not upon its periphery, by means of which devices the shell is clamped securely and advanced to and retracted from such crimping-disk in a straight line; and I do not broadly claim such a device as a part of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a cartridge-shell crimper, of a reciprocating shell carrier and clamp, a crimping-disk, and a cord or band encircling such disk and adapted to cause its rotation, the crimping-disk being situated in

the line of motion of the shell-carrier, substantially as set forth.

2. In a cartridge-shell crimper, and in combination with a rotary crimping-disk, substantially as shown, a horizontally-reciprocating shell-carrier having a shell clamp and platform mounted thereon, for the purpose set forth.

3. A cartridge-shell crimper consisting of the following elements, in combination with each other, substantially as shown: a frame with a horizontal runway therein, a horizontally-reciprocating carrier adapted to move therein, a platform or rest for the shell, and a clamp mounted on such carrier, fulcrum projections mounted upon the frame, as shown, and a lever attached to such carrier and engaging with the fulcrum projections upon the frame.

4. The combination, in a cartridge-shell crimper, of the crimping-disk, the reciprocating shell-carrier platform, and the shell-clamp, the arms of the clamp having edges N' inclined from the front end of the arms backward and downward, as shown, whereby the shell is caused to become wedged between the clamp and the platform when the shell is forced against the crimping-disk.

5. In a cartridge-shell crimper substantially such as described, the combination of the horizontally-reciprocating shell clamp and carrier and the stationary lug Z, mounted behind the shell-carrier and in the line of motion of the shell, as set forth, whereby the shell is intercepted and held stationary until the clamp is forced away from the shell and releases it.

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Witnesses:

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