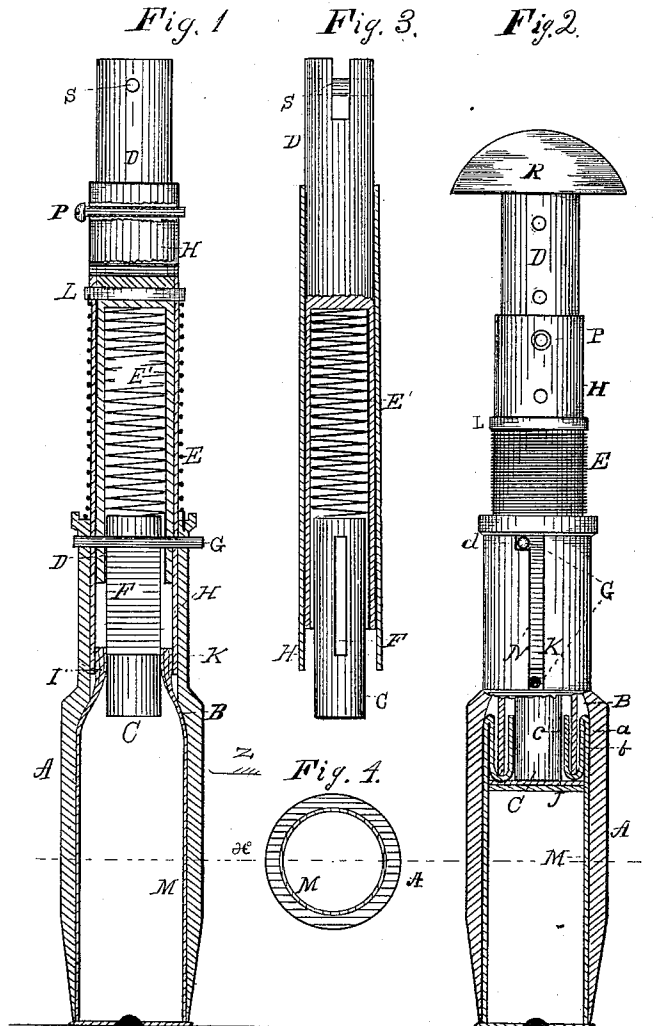


(No Model.)

W. E. NYE.
CARTRIDGE CRIMPER.

No. 340,057.

Patented Apr. 13, 1886.



WITNESSES
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CARTRIDGE-CRIMPER.

SPECIFICATION forming part of Letters Patent No. 340,057, dated April 13, 1886.

Application filed July 3, 1885. Serial No. 170,663. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. NYE, a citizen of the United States, and a resident of Monmouth, county of Warren, and State of Illinois, have invented new and useful Improvements in Cartridge-Crimpers, of which the following is a specification, reference being had to the accompanying drawings, illustrating the invention, in which—

Figure 1 is a vertical central sectional elevation of my improved cartridge-crimper; Fig. 2, a broken elevation of the same, looking at Fig. 1 in the direction indicated by dart *z*; Fig. 3, a broken elevation of the cylindrical and central plungers removed from the other parts; Fig. 4, a section of Figs. 1 and 2 on line *x*.

The purpose of this invention is to form a return-crimp on the end of a cartridge-shell, of such a depth as will hold any given load properly therein. This is done by means of a shell-holder which is provided with an inwardly-tapering bore at its upper end, which contracts the top of the shell and brings it around a central plunger. A cylindrical plunger is then brought against the outside of the contracted part, and forces down so much of the top portion of the shell as will form a return-crimp, the bottom end of which, bearing on the wad, will hold the load in the shell.

The art nearest approaching my devices has consisted in simply crimping the open end of the shell inward, and in one instance doubling the shell inward and downward. The last-named method would answer well the purpose, if it could be employed always to bring the end of the shell against the wad to hold the load in; but as this is not done I have devised the return-crimp and the means for forming it to hold any weight of load in the shell, as hereinafter shown and described.

A represents the cartridge-shell holder, which is made of metal, and has a bore to pass onto the shell, and at the top portion of the bore it is curved inward at B, so that when the holder is forced down over the shell the top will be contracted in size, as shown at I, Fig. 1, and brought against a central plunger, C, which is held to have a short reciprocating

movement in a partially-hollow push-bar, D, 50 by means of a spring, E, and a slot, F, in the plunger, and a pin, G, through it and through the parts surrounding it. The cylindrical plunger H moves down with the plunger C till the latter strikes the wad J, and the plunger H continues to pass down, forming a return-crimp, *a b c*, Fig. 2, till the crimp is brought 55 firmly onto the wad J. The detail mechanism for attaining these movements consists of a hollow neck, K, on the top of the holder, for the reciprocating plunger H to run in, and coil-spring E, which abuts against the top of the neck K, and a collar, L, placed around the top part of plunger H.

That the plunger H may not descend to do 65 its part of the crimping till the top of the shell M is first brought in, as shown at Fig. 1, a pin, G, is put through all the parts, as shown at said last-named figure, and brought into a notch, *d*, in the neck K by the torsion of spring 70 E, whose ends are respectively attached to the collar L and top of neck K. The turning of the neck K on the plunger H will bring the pin G into slot N, and allow the plungers CH to occupy the position shown at Fig. 2, the 75 slot F and spring E' permitting C to stop, while plunger H moves down to finish the return-crimp.

The plunger-bar D may be adjusted vertically in the part H by means of one or more 80 holes through them and a set-screw, P, so that the shells M may be crimped to hold a heavy or light load.

The vertically-moving parts may be operated by the hand on a knob, R, or a lever may 85 be jointed to the part D by means of a slot and pins S, in the ordinary manner of working pistons by hand or other power.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, 90 is—

1. The cartridge-holder case A, having a cartridge-crimper at its upper end portion, formed with the neck K, of a size to permit the cylinder-plunger H to have a vertical reciprocating movement inside of it and outside 95 of the crimped cartridge-neck, and the central plunger, C, combined therewith, to have a ver-

tical reciprocating movement independent of the plunger H by means of the slot E' through it, the pin G, and spring F, whereby the neck of the cartridge is crimped inward and the
5 crimp doubled inside of the cartridge-shell, as specified.

2. The holder A and neck K, formed in one piece, and the top portion of the inside of the holder being curved inward to contract the
10 end of the shell, in combination with the central plunger, C, which operates inside of the

cartridge to form the inside of the crimp, and the cylindrical plunger H, which surrounds the plunger C and operates inside of the holder A to form the complete return-crimp *a b c*,
15 with its lower part resting on the wad J, as specified and shown.

June 9, 1885.

WILLIAM E. NYE.

Witnesses:

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