

T. L. STURTEVANT.

Implements for Loading Cartridge-Shells.

No. 149,265.

Patented March 31, 1874.

Fig. 1.

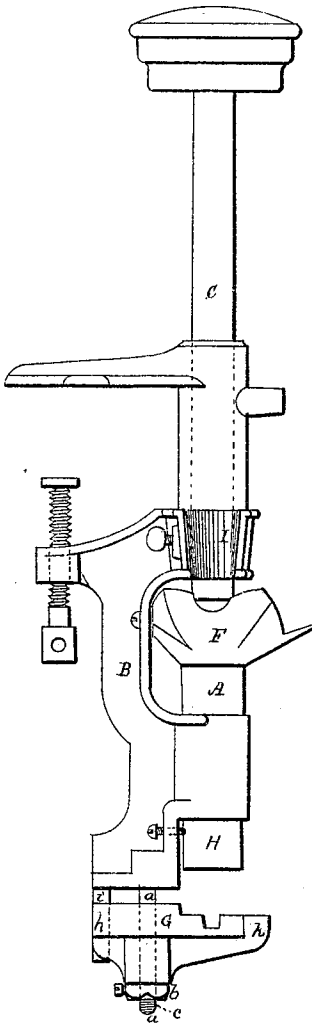


Fig. 2.

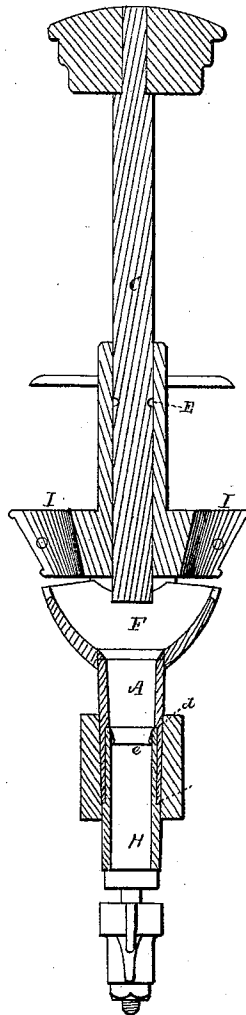


Fig. 3.

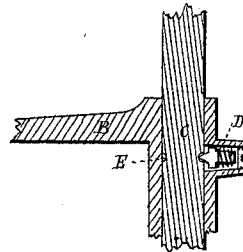


Fig. 4.



Witnesses.
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THOMAS L. STURTEVANT, OF FRAMINGHAM, MASSACHUSETTS.

IMPROVEMENT IN IMPLEMENTS FOR LOADING CARTRIDGE-SHELLS.

Specification forming part of Letters Patent No. **149,265**, dated March 31, 1874; application filed January 17, 1874.

To all whom it may concern:

Be it known that I, THOMAS L. STURTEVANT, of Framingham, in the county of Middlesex and State of Massachusetts, have invented certain Improvements in Implements for Loading Cartridge-Shells, of which the following is a specification:

Several patents of the United States have been issued to me for improvements in cartridge-loading implements, prominent among which are those numbered 138,294 and 141,185, and dated, respectively, April 29, 1873, and July 22, 1873, and my present implement possesses substantially the same general features or elements contained in one or the other of said Letters Patent.

The object of these improvements is threefold—first, to adapt the implement to hold and load cartridge-shells of various sizes or bores; second, to provide or construct the implement with means for attaching to it powder or shot flasks of any ordinary manufacture, from which the loading of the shell may be effected; and, third, to avoid the labor and injury to the hand which is now required to drive the wads into the shell in the act of loading, against the pressure of a spring which elevates the plunger.

The first object is attained by the employment of several auxiliary or detachable loading cylinders or sleeves of varying internal diameters, these sleeves being provided in such number as to receive any given size of shell, and being introduced into the main cylinder as occasion requires.

The second object is carried out by arranging over the mouth of the filling or plunger cylinder one or more clasps or holders, provided with a set-screw or its equivalent, such clasps being to receive the neck of a shot or powder flask, and support it bottom upward in an upright position, in order that its contents may drop into the cartridge-shell contained in the cylinder below.

The third object is arrived at by dispensing with the spiral spring heretofore coiled about the plunger to elevate it, and employing a spring bolt or latch to retain the plunger in its elevated position, the spring of this bolt or latch being so weak that a very slight blow upon the plunger serves to release it and al-

low it to drop by its own weight upon the wad, or receive an impetus from the slight blow which releases the latch.

The drawings accompanying this specification represent, in Figure 1, a side elevation, and in Fig. 2 a vertical and transverse section, of an implement embodying my improvements. Fig. 3 is a section of the auxiliary cylinder or receiver, to be hereafter explained; and Fig. 4, a section of the plunger and its latch.

In these drawings, A represents an upright tube or hollow cylinder, supported upon a bracket or clamp, B, which, in use, is to be secured to a table or bench in such manner that the cylinder or chute A shall stand in an upright position. Sliding within the cylinder A, and capable of being raised above it, is a plunger or rammer, C, of a diameter somewhat smaller than the bore of the cylinder, the object of this plunger being to ram the wads home upon the charge of powder or shot. The plunger C is to be raised to its highest point by the hand of the user, and is retained in this position by a spring-bolt, D, or its equivalent, so arranged and operating with respect to a groove or notch, E, in the plunger as to maintain the latter poised over the cylinder A. The spring of the bolt D is a comparatively weak one, in order that a slight blow upon the top of the plunger shall release the latter, and allow it to drop upon the charge in the cartridge-shell, and by this means avoid the necessity of exerting a hard blow upon the plunger, which was formerly requisite, and which was a source of annoyance and discomfort, and of injury or lameness to the user's hand. Surrounding the upper mouth of cylinder A is a concave or trumpet-mouthed shield or shelf, F, the purpose of which is to facilitate the insertion of the wads within the cartridge-case contained in the cylinder, or to guide the entrance of powder or shot into such case. This concave guard is the prominent feature of the improvement embraced in Letters Patent No. 141,185, hereinbefore alluded to. Below the cylinder A I pivot to the lower end of the clamp B a swinging horizontal shelf or abutment, G, upon which the bottom of the cartridge-shell rests, and which serves to support such shell in its position within the cylinder, and uphold it

therein against the blow of the descent of the plunger. The shelf G itself is upheld upon its pivot or journal *a* by a nut, *b*, which screws upon a screw-thread, *c*, cut upon such pivot, by which means the height of the shelf with respect to the cylinder A is adjusted at pleasure, and the implement thereby adapted to cartridge-shells of various lengths.

This adjustment of the shelf or support G may be effected by other means than that shown in the present instance, and I do not desire to be restricted to any detailed device so long as I effect the proper adjustment, and adapt the implement to receiving and loading cartridges of various lengths. The shelf G is formed with a projecting nose, *h*, which brings up against a stop, *i*, constituting part of the clamp B, the position of this stop being such as to insure the coincidence of the shelf and bore of the cylinder. The stop *i* may be adjustable, if found desirable, or it may be dispensed with, and the nose or gage *h* may be so arranged as to bring up upon either side of the cartridge-shell as a stop. H in the drawings represents a tubular receiver or sleeve, whose outside diameter corresponds to the interior diameter of the cylinder A, a shoulder, *d*, being formed within the upper part of the cylinder, against which the upper end of the sleeve or of a large-sized shell abuts to prevent passage of powder between the two, thus obtaining a uniform bore, which prevents injury to the shell or wad when the former is composed of paper, or to the wad when the shell is of metal. The bore of the sleeve H varies in diameter to correspond with the outside diameter of a given cartridge-shell, and it is formed with an interior shoulder or ledge, *e*, in manner and for the purpose as shown in the shoulder *d*, before alluded to, a set-screw or other device being employed to retain the sleeve in place within the cylinder. As before stated, a number of sleeves are to be provided in order to accommodate any size of shell which may present itself, the outside diameter of all these shells being the same, in order to fill the bore of the cylinder A, while the inside diameter varies to receive the various shells.

I do not confine myself to a sleeve or receiver made of a single thickness of metal, as in practice it may be found that some two or more sleeves may be inserted one within the other, and by this means build up the desired thickness or internal diameter.

Above the mouth of the cylinder A, I dispose one or more yokes or clasps, I, which may be cast integral with the clamp B, each clasp being provided with a set-screw, or its equivalent, and being to receive and support in an upright position an inverted shot or powder flask, in order that the contents of the latter may be precipitated in charges into the shell placed in the cylinder.

By means of the clasp I, right descriptions of shot or powder flask may be attached to the implement.

A shell to be filled is placed mouth upward within the cylinder A, provided it is a shell of sufficient size to fill it, or, if a smaller one, within the sleeve which has been previously introduced within such cylinder, and the shelf G, which previously had been removed from alignment with the bore of the cylinder, is now swung into a position below the head of the shell, and so as to support the latter within the cylinder. The plunger is next raised to its highest point, and remains there by the aid of the bolt D, the charge of powder being poured into the shell, and a wad inserted within it and over the powder. A slight rap is now given to the plunger, which severs the hold of the bolt upon it, and it drops upon the wad and rams it home upon the powder. The plunger is a second time elevated, a charge of shot and afterward a wad introduced into the shell, as before, and the plunger again lowered and the second wad rammed home, when the loading of the shell is completed.

I have found, when compelled to load a large number of shells in succession, that the strong blow requisite to lower the plunger against the stress of a strong spring, when frequently repeated, is a serious annoyance, frequently laming the hand to a considerable extent. I have, therefore, as before stated, dispensed with the spring, and adopted in lieu of it the bolt D, or its equivalent.

The implement above described is designed to a great extent for the use of sportsmen in the field, or when on a long expedition, by which they can load a number of shells in rapid succession with ease and accuracy; hence any improvement tending to facilitate this operation becomes a matter of value.

I claim—

1. The combination, with the plunger and cylinder of an implement for loading cartridge-shells, of an auxiliary removable flaring-mouthed and internally-shouldered sleeve or receiver, whereby the implement is adapted to shells of varying diameters, substantially as and for purposes stated.

2. The combination, with the cylinder of an implement for loading cartridge-shells, of the yokes or clasps I, substantially as and for purposes stated.

3. The combination, with the plunger of a cartridge-loading implement, of the spring-bolt D, substantially as and for purposes stated.

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Witnesses:

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