

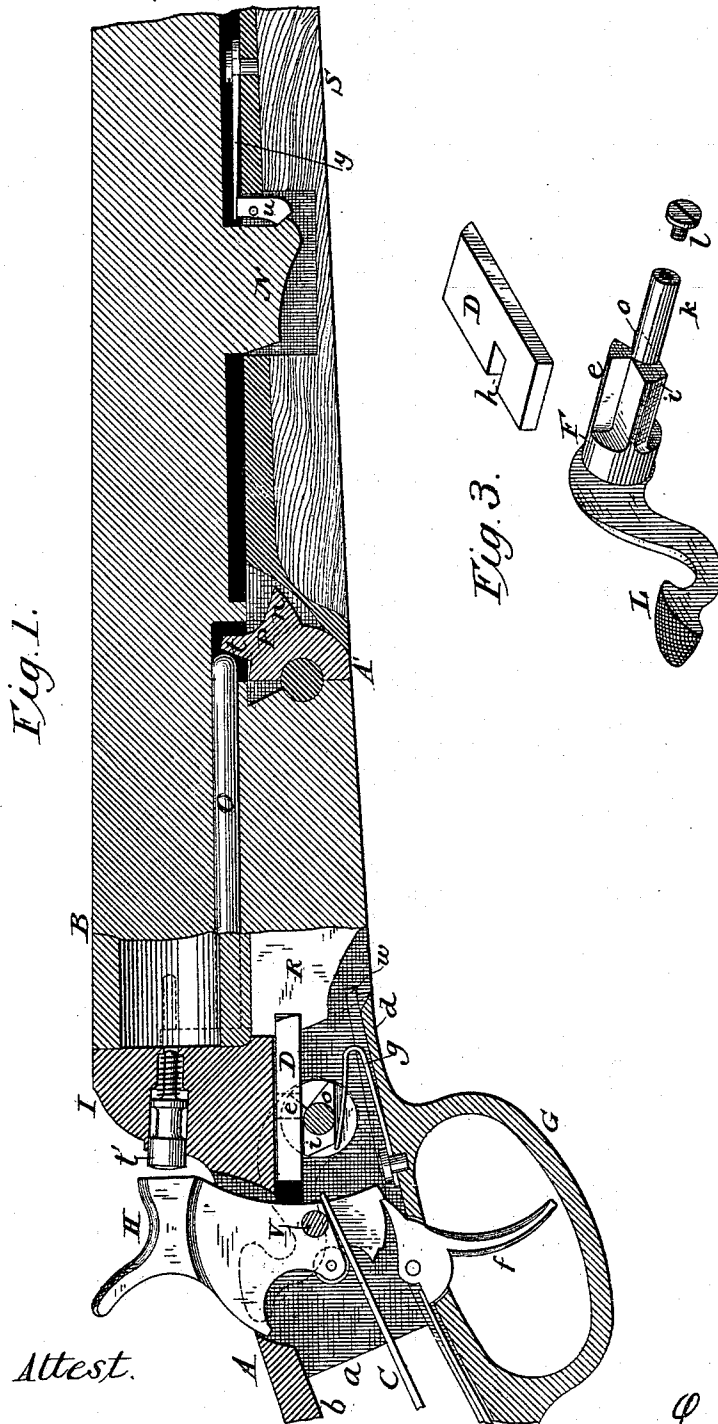
(No Model.)

2 Sheets—Sheet 1.

L. L. HEPBURN.  
BREECH LOADING GUN.

No. 290,426.

Patented Dec. 18, 1883.



Attest.

Sidney P. Hollingsworth  
Walter S. Dodge

*Inventor.*

L. L. Keppburn  
by Dodge & Son  
Attys

(No Model.)

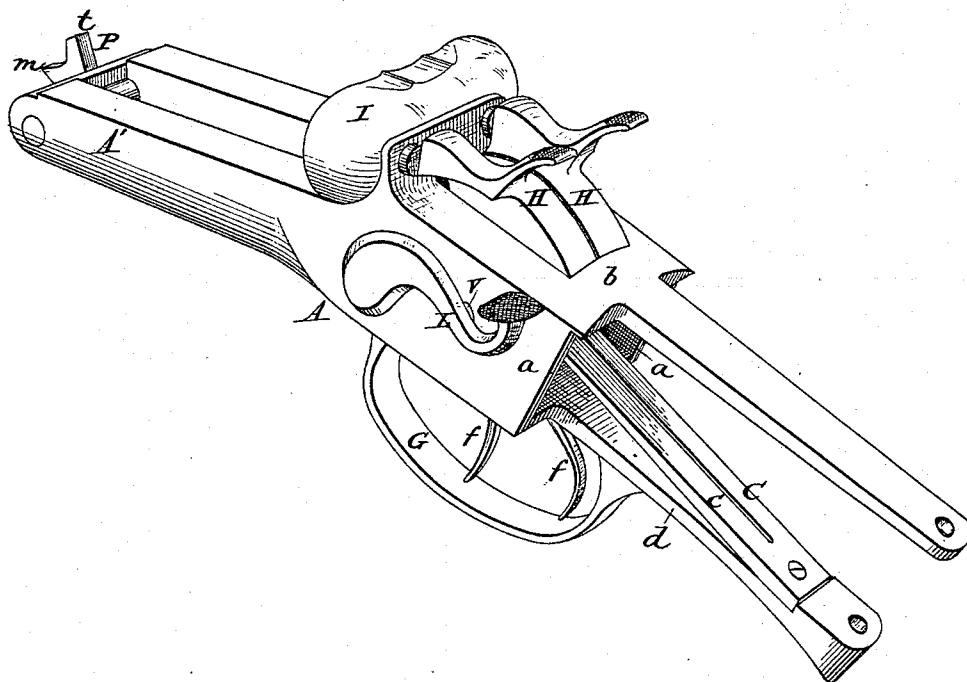
2 Sheets—Sheet 2.

L. L. HEPBURN.  
BREECH LOADING GUN.

No. 290,426.

Patented Dec. 18, 1883.

*Fig. 2.*



*Attest.*

*Sidney P. Hoenesworth*  
*Walter S. Dodge*

*Inventor.*

*L. L. Hepburn.*  
*by Dodge & Son*  
*Atty.*

# UNITED STATES PATENT OFFICE.

LEWIS L. HEPBURN, OF ILION, NEW YORK.

## BREECH-LOADING GUN.

SPECIFICATION forming part of Letters Patent No. 290,426, dated December 18, 1883.

Application filed July 7, 1882. Renewed July 23, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS L. HEPBURN, of Ilion, in the county of Herkimer and State of New York, have invented certain Improvements in Breech-Loading Fire-Arms, of which the following is a specification.

This invention relates to double-barreled guns of that class ordinarily used for sporting purposes; and the invention consists in certain details of construction, as hereinafter more fully set forth.

Figure 1 is a longitudinal vertical section of a gun constructed on my plan, and Fig. 2 is a perspective view of the frame and breech mechanism.

The object of this invention is to simplify the construction of double-barreled guns, so as to cheapen their production.

To make a gun on my improved plan, I make the breech-frame as represented in Fig. 2, said frame consisting of the fore-arm A', for pivoting the barrels to in the usual manner, and a rear part made in the form of a box for receiving the locks and the devices for locking and unlocking the barrels. This frame A consists of but two pieces, the portion in rear of the breech I being formed with its top wall, b, and its two side walls, a, a, integral with the breech I and fore-arm A', while the bottom wall or piece, d, constitutes the remaining or second piece, this latter being prolonged backward to form a tang below, as shown in Fig. 2. This lower piece, d, has its front end provided with a projection or lip, W, which fits into a corresponding groove cut in the other portion of the frame, as shown in Fig. 1, this piece d being slipped in endwise between the side walls, a, of the other part, so as to cause the lip w to enter the groove, after which it is secured in place by one or more screws, which pass through the side walls, a, near their rear end.

I have also represented the trigger-guard G as being forged solid with the plate d; but, if preferred, it may of course be made separate. I prefer, however, to make it as represented.

At the front end of the fore-arm A' of the frame I make a projection, P, (shown in Figs. 1 and 2,) and which is also forged solid with the part A'. This projection P, I form into two arms, t and n, the former standing nearly ver-

tical, so as to project up into a recess in front of the end of the stem O of the extractor, so that as the barrels tip it will cause the extractor to start the shells from the chambers in the usual manner, while the arm n is inclined on its upper face at an angle corresponding with the inclination of the barrels when tipped or dropped to open the breech, this arm n thus forming a rigid stop, upon which the barrels strike and rest when dropped.

To the under side of the barrels at their rear end is secured the solid lump or piece R, of proper size to fit in the recess or slot in the fore-arm A', as usual, its rear end being beveled and provided with a transverse notch to receive the end of the locking-bolt D, as shown in Fig. 1, the lower rear corner of said lump or lug R being broken away to show the locking-lip w of the plate d.

The locking-bolt D consists of a short flat bar, as represented in Fig. 3 detached, and is made of such a width as to fit and slide in longitudinal grooves formed in the side walls, a, of the frame, which is made slightly narrower internally at that point, its position when in place being clearly shown in Fig. 1. It has a notch or recess, h, cut in one edge, and which extends about half-way across it, as shown in Fig. 3, for a purpose hereinafter explained. I then provide a bolt, F, which has a thumb-lever, L, secured to one end, as shown. This bolt has its body at the end adjoining the lever made full and round to form a journal, while its opposite end is reduced in diameter, as shown, thus forming a much smaller journal at that end. Between these two points the metal is cut away, so as to form three laterally-projecting ribs or arms, i, o, and e, as shown in Figs. 1 and 3, the ribs i and o projecting from opposite sides, rear, and front, while the rib e projects at the top at right angles to the other two. This latter rib, e, is made of a thickness at its outer edge to correspond with the width of the notch h in the bolt D, but is dovetailed in shape or made thinner at its lower edge, for the purpose of permitting it to move freely in the notch as the bolt is turned without binding therein, and at the same time to prevent any lost motion between the parts. A hole is bored transversely through the sides a of the frame, for the reception of

the bolt F, as indicated in Fig. 1, the hole in one side being made of the full diameter of the largest part of the bolt, while at the opposite side it is made of a size to correspond with the smaller journal *k* of the bolt.

With the parts thus constructed it will be seen that after inserting the locking-bolt D in its grooves the operating-bolt F can be inserted through the larger hole in the side of the frame, so its rib *e* will rest in the notch *h* of the bolt D, when a screw, *l*, inserted in the end of the journal *k* from the outside, serves to hold these bolts F and D in place. A bent spring, *g*, is secured within the frame, as shown in Fig. 1, in such a position as normally to bear against the under side of the rearwardly-projecting rib *i*, thereby tending to press the rib *e* forward, and which in turn presses the bolt D forward, causing it to automatically engage in the notch in lug R, and thus lock the barrels fast as they are closed. The forwardly-projecting rib *o* acts as a stop to prevent the bolt from moving beyond the desired point by striking on the spring *g* when the lever L is released from the pressure of the thumb.

The locks consist of two rebounding hammers, H, inserted side by side through an opening in top plate, *b*, of the frame, to which they are journaled by a transverse bolt, V, as shown in Fig. 1, each being operated by a single straight spring, C, secured to the lower plate, *d*, the two springs being made of a single piece of metal, as shown in Fig. 2, so that a single screw serves to secure them both in place.

The manner of causing the hammers to rebound is well known, and therefore need not be described. Each hammer is formed with a lateral offset above the top of the frame, as shown in Fig. 2, so as to bring their faces in line with their respective firing-pins.

As shown in Fig. 1, the triggers *f* are made to engage directly with the tumblers formed on the lower portion of the hammers, thus dispensing with the intermediate sears ordinarily used in this class of guns, care being taken to so arrange the leverage of the two arms of the triggers as to cause them to operate with only the requisite pull.

The firing-pins *t* are made of a good size, and with two bearing-points between which they are formed with an annular recess, by which construction they are rendered less liable to stick fast in their seat by rust or dirt.

In order to provide a simple and cheap means of securing the fore end, S, of the stock to the barrels, I pivot to the metal plate thereof a small metal latch, *u*, having its lower rear edge beveled, as shown in Fig. 1, its upper end be-

ing made flat and having a flat spring, *y*, bearing thereon. The lug N, secured to the barrels in the usual manner, has its front face provided with a corresponding bevel or incline, upon which the latch *u* engages when the fore end is pressed into place against the barrels, the under corner of the lug N being also beveled or inclined to permit it to act as a wedge against the upper incline on the edge of the latch, and force the latter back as the fore end is pressed to its seat. When the fore end is pressed to its place, the spring *y* operates to throw the lower end of the latch *u* forward upon the projecting or beveled point of the lug, and hold it there with sufficient force to lock the fore end fast, but will yield to permit it to be pulled off when desired. In this manner I provide an exceedingly simple and cheap fore-end fastening, and one that will permit the fore end to be removed and replaced by the hand without the use of any tool.

By this construction I am enabled to produce a double gun having but very few pieces, and therefore cheap to construct, and which, while being simple and cheap, is strong, and possesses all the requisites of a good and convenient gun.

I am aware that guns have before been invented in which the locking-bolt was operated by a transverse rocking bolt operated by a lever; also, that two hammers have before been arranged side by side, and also that a double-armed projection has before been used to operate the extractor and limit the movement of the barrels, said projection having been made of a separate piece and then fastened to the front end of the frame in various ways, and therefore I do not claim either of these features, broadly; but

What I do claim as my invention is—

1. The projection P, provided with the arms *n* and *t*, formed solid on the end of the forearm A', substantially as shown and described.

2. The sliding locking-bolt *d*, provided with the notch *h*, and the rocking bolt E, provided with the ribs *e*, *i*, and *o*, in combination with the spring *g*, said parts being constructed and arranged to operate substantially as shown and described.

3. In combination with the frame A, constructed as herein set forth, the rebounding-hammers H H, inserted through the top of the frame, both pivoted upon the one bolt, and having their heads offset, as shown and described.

LEWIS L. HEPBURN.

Witnesses:

H. S. QUACKENBUSH,  
F. C. SHEPARD.