

M. WOOD.

Improvement in Machine-Guns.

No. 130,098.

Patented July 30, 1872.

Fig. 1

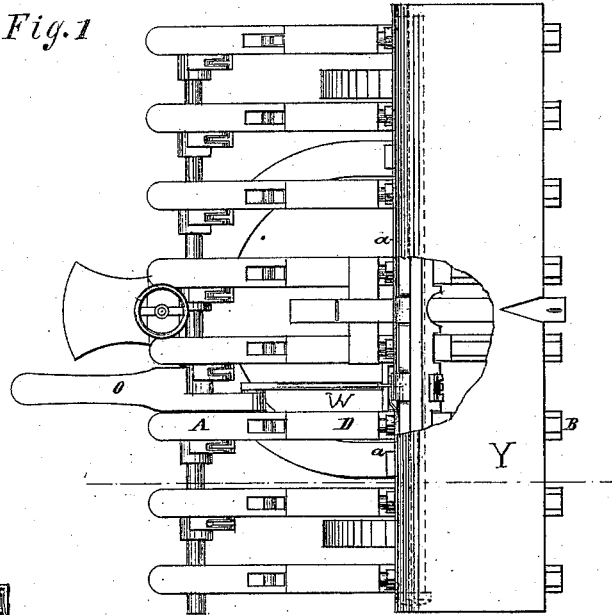


Fig. 3.

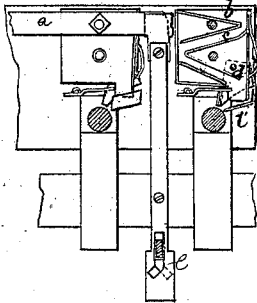
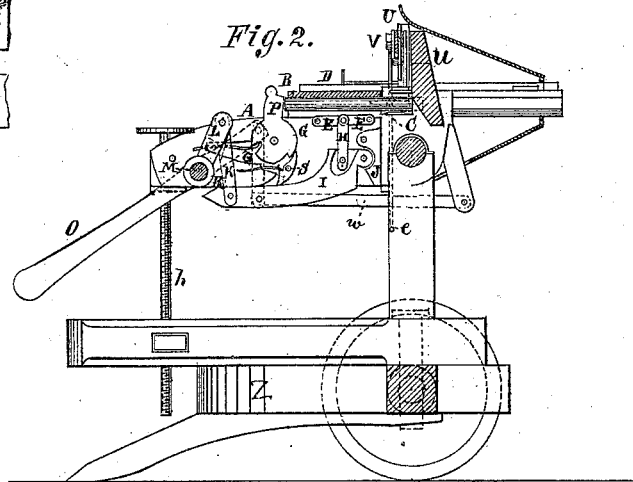


Fig. 2.



Witnesses:

G. Watkins.
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PER

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UNITED STATES PATENT OFFICE.

MARSHALL WOOD, OF LEWISBURG, WEST VIRGINIA, ASSIGNOR TO HIMSELF AND THOMAS MATHEWS, OF SAME PLACE.

IMPROVEMENT IN MACHINE-GUNS.

Specification forming part of Letters Patent No. 130,098, dated July 30, 1872.

Specification describing a Many-Barreled Fire-Arm, invented by MARSHALL WOOD, of Lewisburg, in the county of Greenbrier and State of West Virginia.

The invention consists in several improvements in battery guns or rifles, as follows: First, in combining the well-known toggle, for reciprocating the breech-bolt, with the hand mechanism hereinafter described, for operating it. Second, in combining a series of cartridge-carriers with the several barrels so that they will feed all the barrels simultaneously. Third, in a peculiar construction of cartridge-carrier with a zigzag chamber, which is made to feed by a vibratory movement thereof. Fourth, in operating a series of connected cartridge-carriers by means of rods and cam-slotted levers.

Figure 1 is a top view. Fig. 2 is a vertical section through line *xx*. Fig. 3 is a detached view of the cartridge-box connected to the operating-levers.

A represents the stock of each barrel, B the barrels, C the closing breech-bolt, and D the bolt-receiver. E E are two links, pivoted at one end to bolt C, at the other to a block, G, and in the middle to each other and to a link, H, thereby forming a toggle connection. I is a lever attached to lower end of link H, pivoted to a block, J, and attached to the jointed arms K L, which are operated by rod M and lever O. P is the hammer, which strikes a bolt, C, that is provided with points of ignition. These points penetrate a copper cartridge in barrel. S is a pawl provided with a spring, T, to maintain the hammer in position when thrown back. U is a frame, to which is pivoted a series of cartridge-carriers, V, one for each barrel. *aa* are rods which connect the several cartridge-carriers together, and *ee* cam-slotted levers attached to these rods, while *w* is a rod which is moved up and down in said cam-slots to vibrate said levers. Each cartridge-carrier is provided with zigzag and inclined guide-channels *c*. To the back of this carrier may be pivoted a discharge-sweep, which is larger one way than the other and is supplied with a spring on the back edge of cartridge-box. This is for the purpose of throwing out the cartridge which has been

previously drawn out of barrel by a spring-hook that plays in the breech-bolt groove. Under each cartridge-box is a small incline, which receives cartridge and conveys it to its proper position in breech when the bolt moves back. Under the cartridge-box is also a cut-off, which excludes all cartridges, except the one in conveyer, and keeps them back until bolt moves again, when it deposits another. It will be perceived that I have pivoted on the same rod eight guns, whose ends are secured by screw-caps *w w*. Y is a shield covering the barrels of the guns, and polished so as to prevent the enemy from drawing a sight upon them. It is apertured to receive the end of barrels. Z is a turn-table for lateral adjustment of the range, while the guns are raised or depressed by means of a swivel-screw, *h*. By raising lever O the breech-bolt C is drawn back, the breeches of all the barrels opened, each piece cocked, and a cartridge deposited in each breech. On the other hand, by depressing lever O each pin C drives home its cartridge and then discharges simultaneously each of the guns. These guns will cover eight or ten feet and dismount those of the enemy, cut down double files of soldiers, or destroy a cavalry charge, since each barrel can throw sixty balls per minute. The barrels are intended to be incased in metal tubes, full of water or acid. All the carriers being filled with cartridges placed transversely thereacross, and provided with a discharge-sweep, they are shaken by the vibratory bars so as first to throw off the spent cartridge and then drop a fresh one. This is effected by a single vibration or movement back and forward when the bolts drive the said cartridges home into their respective barrels.

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

1. The combination, with toggle E E, of the mechanism H I K L M O, as described, so as to enable the gunner to reciprocate the breech-bolt C by hand, as described.

2. A series of barrels, B, bolts C, and bolt-receivers D, arranged with respect to stock A as described, in combination, as set forth, with a series of vibratory carriers that drop simul-

taneously a cartridge between each bolt and barrel.

3. The cartridge-carrier for battery-guns herein described, provided with zigzag and inclined channels *b c*, adapted to receive the cartridges transversely and allow them to be shaken out one by one, as described.

4. The rod *w* and cam-slotted levers *e e* combined with carrier-rods *a a*, as described, so as to vibrate all the carriers at the same time.
MARSHALL WOOD.

Witnesses:

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