

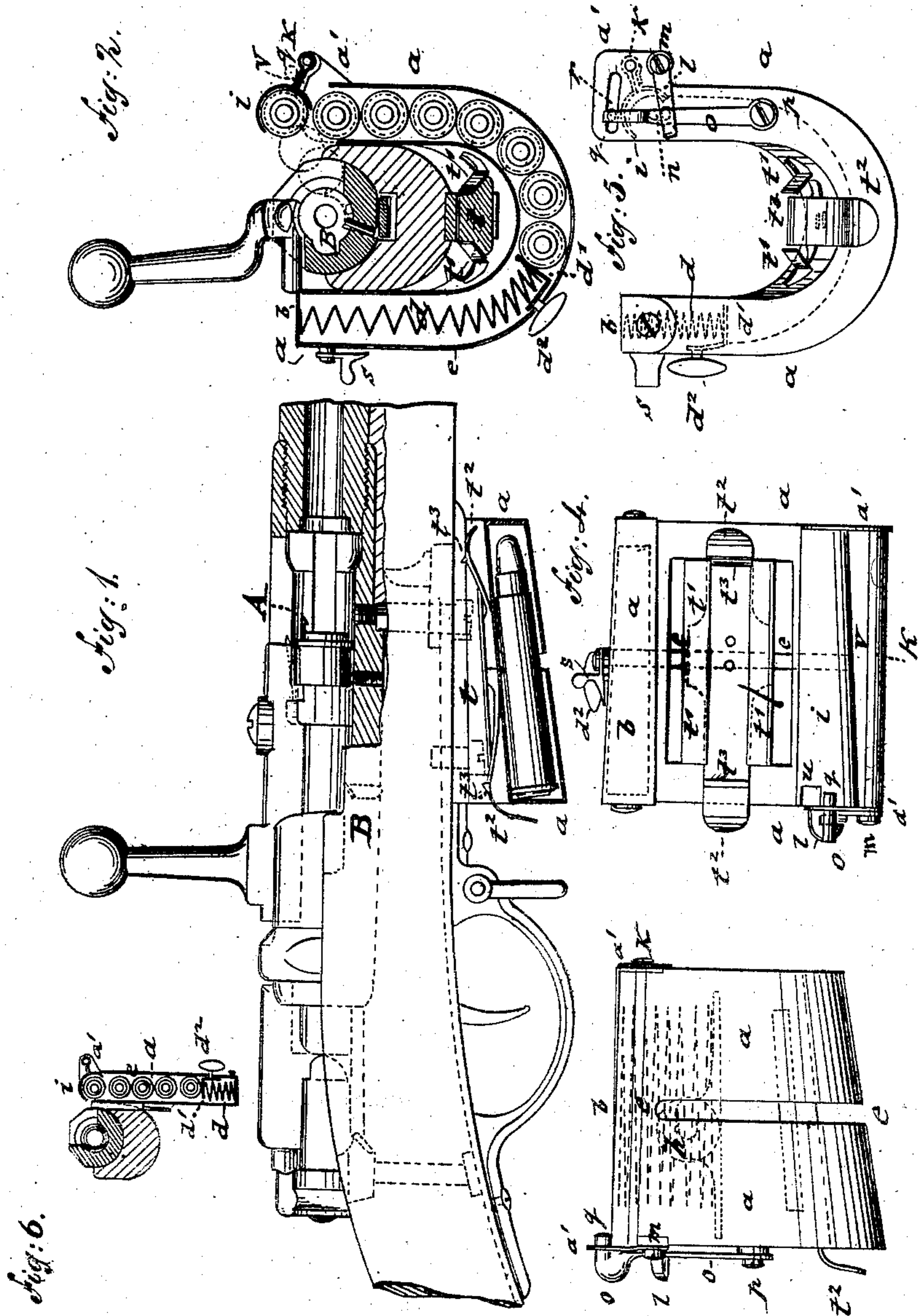
(No Model.)

E. BARTHELMES.

MAGAZINE GUN.

No. 245,048.

Patented Aug. 2, 1881.



WITNESSES:

Carl Karp  
Otto Risch

Fig. 3.

INVENTOR:  
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# UNITED STATES PATENT OFFICE.

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## MAGAZINE-GUN.

SPECIFICATION forming part of Letters Patent No. 245,048, dated August 2, 1881.

Application filed November 6, 1880. (No model.) Patented in France March 24, 1880, in Belgium March 30, 1880, and in Italy  
May 5, 1880.

*To all whom it may concern:*

Be it known that I, EDUARD BARTHELMES, residing at the city of Berlin, in the Kingdom of Prussia, German Empire, have invented  
5 Improvements in Magazine Attachments to Breech-Loading Fire-Arms, of which the following is a specification.

This invention has reference to an improved magazine attachment to breech-loading fire-arms, by means of which a number of cartridges may be successively supplied to the barrel of the fire-arm in connection with the operating mechanism of the same, so that the loading of the same is simplified and a number of shots  
10 may be given in rapid succession.

The invention consists of a cartridge-case which is detachably secured to the stock of the fire-arm and provided at the inside with a guided and spring-pressed plate which forces  
20 the cartridges from one side to the other, so as to discharge the same successively in connection with a hinged cap, which is set by suitable lever mechanism either into closed or partially or entirely open position, as required, as  
25 will appear more fully hereinafter and finally be pointed out in the claims.

In the accompanying drawings, Figure 1 represents a sectional side elevation of a breech-loading fire-arm with my improved magazine attachment, the latter being shown in longitudinal section. Fig. 2 is a vertical transverse section of the fire-arm and magazine. Fig. 3 is a side view; Fig. 4, a top view, and Fig. 5 a rear view, of the magazine attachment, shown detached from the fire-arm; and Fig. 6 is a vertical transverse section, on a smaller scale, of the fire-arm and magazine, showing a modified construction of the attachment.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, *a* represents a casing of sheet-steel, which is preferably bent in the shape of the letter *U*, so as to be capable of convenient and compact attachment to  
45 the stock below the chamber of the barrel without taking up any extra space or being in the way. The opening on the left side of the *U*-shaped casing *a* is permanently closed by

a top plate, *b*, the overlapping ends of which are secured by screws, as shown in Fig. 5. 50

In the interior of the casing *a* is arranged a strong spiral spring, *d*, the upper end of which is seated against the top plate, *b*, while the opposite end bears against an angular slide-plate, *d'*, which corresponds in size to the cross-section of the casing. The spiral spring *d* is made of such length and strength that it is capable of forcing the angular slide-plate *d'* through the entire length of the *U*-shaped magazine up to the right-hand opening of the same. 55

The slide-plate *d'* is provided with a fixed stud, *d*<sup>2</sup>, which passes through a transverse slot, *e*, of the exterior wall of the magazine to the outside, and is provided with an enlarged head or button, by which the slide can be carried toward the fixed top plate, *b*, for compressing the spring *d*. The extent of motion of the slide-plate *d'* is limited by the length of the slot *e*, which extends nearly entirely around the exterior circumference of the magazine. 60

On the left-hand side of the magazine the slot *e* is provided with a side recess, *h*, into which the stud *d*<sup>2</sup> of the slide-plate *d'* is placed when the slide-plate has been carried back sufficiently to that side of the casing. 65

Before the stud of the slide-plate *d'* can be set into the recess *h* of the slot *e* it is necessary to push a pivoted guard, *s*, sidewise, after which the stud of the slide-plate can enter into the recess *h*, as shown in Fig. 4. The spiral spring *d* is thereby reliably retained by the slide-plate in compressed position at one side of the magazine, in which position the interior space of the casing *a* may be readily charged with cartridges. 70

The front and rear end walls of the magazine *a* are provided at the right-hand side with bracket-shaped extensions or ears *a'*, to which a semicircular cap, *i*, is hinged by a pintle, *k*. This cap is adapted to cover the right-hand opening of the casing *a*, and is made, like the body of the casing, with a taper, which corresponds to the usual taper of the cartridges used in breech-loading fire-arms. 75

The semicircular cap *i* can be set into three different positions, and securely retained in 80



either of the same by means of two pivoted retaining-lever arms, *o* and *l*, which are clearly shown in Figs. 3, 4, and 5. The pivoted arm *l*, Fig. 5, turns around the screw-stud *m*, and projects by a pin into a slot, *n*, of the rear wall of the casing, by which slot the extent of upward motion of the lever-arm *l* is controlled. In similar manner the lever-arm *o* turns on a screw-stud, *p*, and passes by a pin, *q*, through a slot, *r*, of the rear bracket-plate, *a'*, of the casing, the slot *r* defining the extent of side motion of the lever-arm *o*.

For placing the cap *i* into the first or closed position the lever-arm *l* is left in its downward position, and the lever-arm *o* carried toward the left, so as to abut against the projecting hook-shaped end of the lever-arm *l*. In this position the arm *o* retains the cap *i* in closed position. For setting the cap into the second or open position the lever-arm is moved upward in its slot *n*, and the arm *o* toward the left as far as slot *r* will admit, in which position the cap *i*, which is recessed at *u* next to the rear wall of the casing, can be passed beyond the pin *q* and thrown into open position. In the third or partially open position of the cap *i* the lever-arm *o* alone is moved toward the right as far as the slot *r* admits, in which position the shank *v* of the cap abuts against the pin *q* and produces the partial opening of the cap *i*, as shown clearly in Fig. 2. When the cap *i* is closed the cartridges are securely retained within the casing, but ready to be charged into the barrel of the fire-arm. In this position the stud of the slide-plate is released, so that the latter is forced by the spring upon the cartridges, and moves them forward against the cap *i*, which receives thereby a tendency to be thrown open, which, however, is prevented by the pin *q* of the lever-arm *o*. By throwing the lever-arm *o* sidewise the cap *i* is instantly thrown into the third or partially open position by the pressure of the spiral spring, until its shank *v* forms contact with the pin *q*. The cartridges follow the motion of the cap, the upper one being partly embraced by the semicircular cap *i*, the lower shorter part of which, below the shank *v*, enters between the first and second cartridge, and prevents, thereby, the latter, as well as all the remaining cartridges, being thrown out of the magazine by the pressure of the spiral spring. In this position of the cap *i* the uppermost cartridge is readily dropped sidewise into the open barrel of the fire-arm. By pressing the cap *i* downward the lower shorter part of the same forces the cartridges slightly downward, and permits the uppermost cartridge again to pass beyond it and place itself in position in the upper longer part of the cap *i*, so that by resetting the lever the next cartridge can be thrown out and the remaining ones held inside of the magazine. By thus opening and closing the cap *i* one cartridge after the other can be successively and reliably supplied from the magazine to the barrel of the fire-arm.

The magazine *a* is attached to the stock of the fire-arm by means of a dovetailed piece, *t*, which is rigidly screwed to the under side of the stock.

From the inner wall of the magazine are bent up two lugs, *t'*, at the same inclination as the sides of the dovetailed piece *t*, which lugs are slid over the piece so as to retain the magazine against lateral displacement. A band-spring, *t<sup>2</sup>*, is, furthermore, centrally riveted to the inner wall of the magazine and extended longitudinally along the same.

The spring *t<sup>2</sup>* is provided with hook-shaped projections *t<sup>3</sup>* *t<sup>3</sup>*, which enter into notches of the fixed dovetailed piece *t*, so as to prevent any displacement of the magazine in longitudinal direction when once placed in proper position on the stock. If a smaller number of cartridges is desired to be stored in the magazine, the straight form shown in Fig. 6 may be used, which is locked to the side of the fire-arm, though the U-shape form is in every respect preferable, as it is more compact and does not interfere with the handling of the fire-arm.

For charging the magazine with cartridges the cap *i* is thrown into entirely open position and the slide-plate *d'* locked into the recess of the slot *e*. The cartridges are then inserted and the cap *i* closed when the magazine is entirely filled. In this condition the magazine can be carried in any desired manner detached from the stock until required for use. It is then locked to the stock of the fire-arm, after which the spring *d* is released and the guard is carried over the recess *h*, so as to prevent the accidental resetting of the stud of the side plate in the recess *h*.

The breech-loading fire-arm may be supplied for any length of time with single rounds from the cartridge-box in the usual manner, until the order for rapid firing is given, when the magazine is placed in position on the stock. The lever-arm *o* is then carried sidewise, so as to release the cap *i*, which is, however, held in closed position by the lever-handle of the movable portion of the chamber of the fire-arm. By turning the handle of the chamber from right to left the shell of the cartridge is first thrown out by means of the extracting devices, which are indicated in Fig. 1, respectively, by the letters A and B, the extractor A engaging the shell and carrying the same back within the chamber until the rim of the cartridge is arrested by the fixed projection B, by which the cartridge is upset and thrown out of the chamber. As the pressure of the handle on the cap *i* is released in opening the chamber, the cap *i* is thrown up by the internal pressure of the cartridges, and thereby a cartridge is dropped sidewise into the chamber. By the return motion of the handle in closing the chamber the cartridge is placed in proper position into the chamber of the fire-arm and the cap *i* closed again by the lever-handle, when the same is turned over from the left to the right.



The magazine shown in the drawings is capable of taking up eleven cartridges, which, in connection with the cartridge in the barrel, furnish twelve rounds, which can be rapidly fired one after the other by the simple opening and closing of the cartridge-chamber of the barrel by the handle, without removing the hand therefrom during this operation. In this manner the fire-arm is almost instantly reloaded, and admits the firing of a dozen shots in rapid succession. The magazine is removed from the stock by simply pressing with the hand upon the bottom of the magazine, so that the locking-spring may be released, and the magazine detached from the stock.

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

1. A double-wall magazine open at one end, and at this end provided with a concave hinged and tapered cap, *i*, recessed at *u*, in combination with lever-arms *l o*, the arm *l* hooked and provided with a pin working in a slot of casing *a*, and the arm *o* provided with a stud working in a slot through the rear breech-plate, *a'*, said parts being arranged to operate substantially in the manner and for the purpose specified.

2. The combination of a double-wall magazine, having a transverse slot, *a*, in its outer wall and a pivoted guard near the enlarged end of the slot, with an interior guided and

spring-acted slide-plate having an exterior button, substantially as described.

3. The combination of a double-wall cartridge-magazine, having inwardly-bent lugs and a central longitudinal locking-spring at its interior wall, with a fixed holding-piece of the block, the spring locking by projections into notches of the fixed piece, substantially as described.

4. The double-wall magazine slotted at *e h*, and provided with the guard, slide, and stud, in combination with the hinged cap *i* and its releasing and retaining devices, substantially as described.

5. The combination of the casing *a*, having end brackets, hinged cap *i*, having corner recess *u*, and pivoted lever-arms *o l*, which are guided by studs in slots *u* and *r* of the casing and end bracket respectively, substantially as described.

6. The semicircular cap *i*, adapted to fit the cartridges, and having a shank, *v*, by which it is pivoted to the casing at *k*, in combination with a magazine, *a*, and a stud, *g*, on the lower arm, *o*, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDUARD BARTHELMES.

Witnesses:

CARL FEHLERT,  
BARTHOLD ROI.