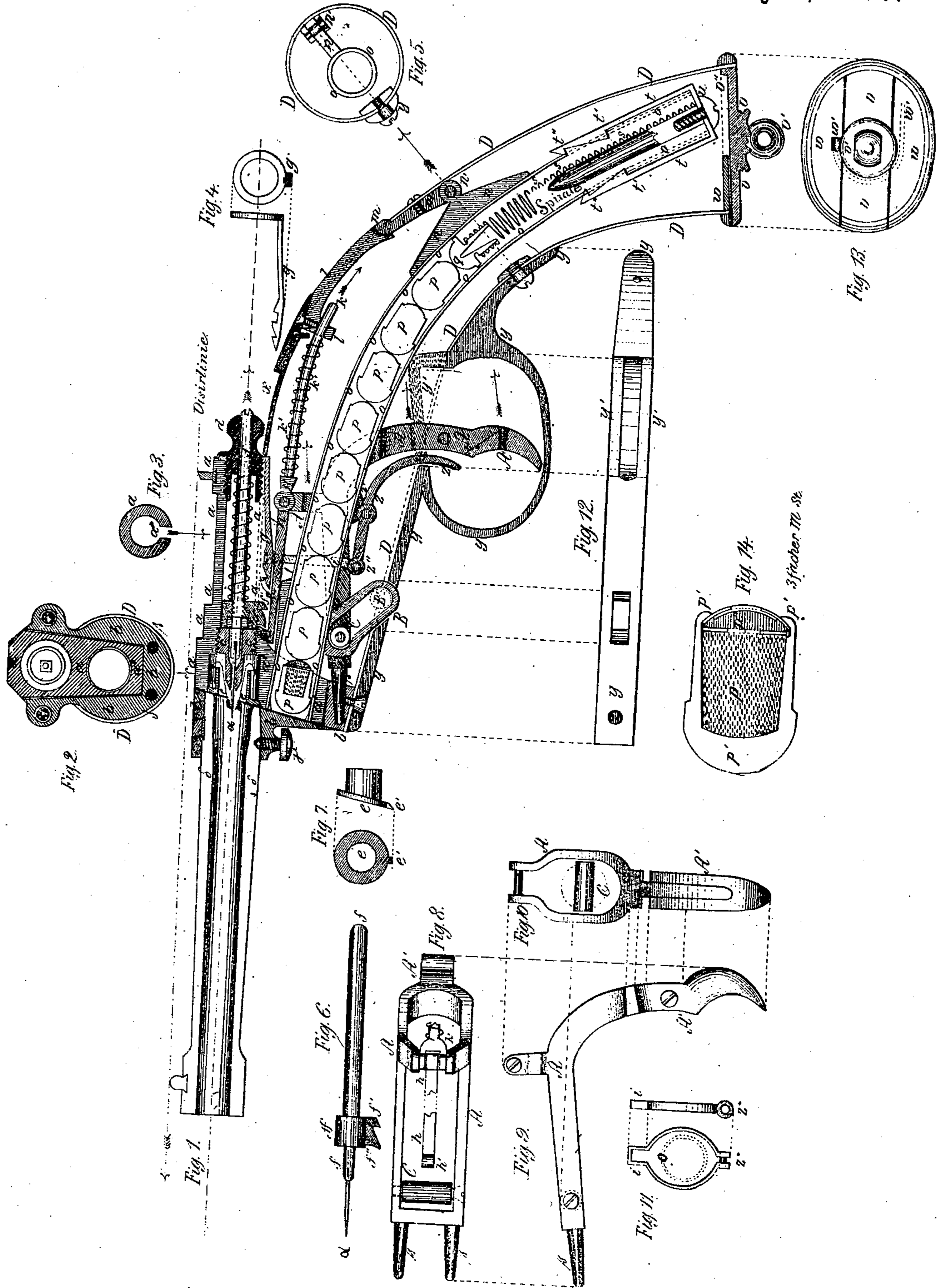


J. KRAFFERT.
MAGAZINE FIRE ARM.

No. 105,093.

Patented July 5, 1870.



Witnesses
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JULIUS KRAFFERT, OF BERLIN, PRUSSIA.

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IMPROVEMENT IN MAGAZINE FIRE-ARMS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JULIUS KRAFFERT, of Berlin, in the Kingdom of Prussia, have invented certain Improvements in Pistols and Guns, of which the following is a specification.

This invention, which has been patented in Prussia on the 26th day of March, 1868, and in Belgium on the 20th day of January, 1868, consists in the arrangement of an oscillating cartridge-chamber, situated in the butt-end of the pistol or gun, and connected with the breech-chamber, containing the hammer or needle-bar with their appurtenances, and so combined with a lever that, by the operation of the latter, the hammer or needle will be cocked, and, at the same time, the mouth of the cartridge-chamber moved in a line with the barrel of the pistol or gun, to allow one of the cartridges in the chamber to be pushed into the barrel of the pistol or gun.

And further, my invention consists in the arrangement of a ring in the forward end of the breech, bearing against the muzzle of the barrel, which, when the pistol or gun is discharged, is forced against the end of the barrel by the generated gases, so as to prevent thereby any escape of the gases between the breech and the barrel.

This invention is equally applicable to pistols and to guns, and is represented in the accompanying drawing applied to a pistol, where—

Figure 1 represents a longitudinal section of a pistol, embodying my invention.

Figures 2, 3, 4, &c., show different views of several parts of the pistol, which will be more particularly referred to in the following description.

Figure 14 represents a longitudinal section of the ball-cartridge.

Similar letters represent similar parts in all the figures.

a a represent the breech or case containing the hammer when arranged for percussion-caps, or the needle-bar *f* with its appurtenances.

This breech-case has a long slot, *a''*, cut in its lower side, (see fig. 3,) and has in the front, at its lower end *a'*, the cartridge-chamber *o* firmly attached.

b b is the end flanch of the gun or pistol-barrel *S*, connected through suitable bolts (see fig. 2) with the stock.

c c is the guide for the needle *X*, secured in the breech-case *a*.

d is a cap, screwed into the after end of the breech-case *a*, through which the needle-bar *f* passes, and by which the same is guided. This cap *d* fastens likewise the spring lever *g* (see fig. 4) to the end of the breech-case *a*.

e e is a ring, (see fig. 7,) arranged in the forward end of the breech-case *a*, fig. 1, and provided with a flanch,

bearing against the end of the barrel *S*, to prevent the escape of the gases.

f is the needle-bar, (see fig. 6,) furnished with the needle *X*, and provided with a collar, *f f*, having teeth *f'* and *f''* at its lower side, of which the tooth *f'* engages with the spring lever *g*, when the bar is thrown or moved outward, and through which the same is cocked.

h is a lever, connected with an arm of the lever *A*, the end of which said lever *h* is provided with a projecting nose, *h'*, which connects with the tooth *f''*, for the purpose of moving the needle-bar *f* backward until the tooth *f'* engages with the nose on the end of the spring lever *g*.

To the end of this lever *h* a stem, *k*, is attached, guided in the projection *l*, and surrounded by a spiral spring, *k'*, to bring the lever *A* back again into its primitive position.

i is a looped-shaped strap, passing clear of and around the cartridge-case *o*, (see fig. 11,) connected at its upper end with the spring lever *g*, and joined at its lower end *z''* to the trigger *z*, (see fig. 1,) which said trigger turns on a center-pin, *z'*, attached to the cartridge-case *o*.

m is a bracket, attached to the inner side of the butt-end or stock *D* of the pistol, (see fig. 5,) to which the plate *n* is hinged, and which latter is attached to the cartridge-case *o*, so as to allow said cartridge-case *o* to vibrate or oscillate on the center of connection or axis *n'*.

P P represent the cartridges in the chamber *o*.

q is a piston, moving freely in the case *o*, and attached to the end of a spiral spring, *s s*, acting against the cartridges.

v v represents a movable plate at the end of the butt-end or stock *D* of the pistol, to close the opening through which the cartridges are inserted into the case or chamber *o*.

x is a plate, to cover the parts round and behind the breech-case *a*.

y is the guard, provided with guides *y' y'*, (see fig. 12,) for the lever *A*.

This lever *A* (see figs. 8, 9, 10) is provided with points *B B* on its forward end, entering suitable holes in the forward solid part of the butt or stock of the pistol, and is provided with a friction-roller, *C*, working in a slotted lever, *B*, firmly secured to the under side of the cartridge-case *o*.

The cartridge consists of a hollow ball, *p'*, (see fig. 14,) with its sides forming a cup, to receive the powder *p*, behind which the primer *p''* is placed, and over which the ends of the sides of the ball *p'* are bent, and the powder and primer thereby secured.

The operation of the pistol is as follows:

To fill the cartridge-chamber *o*, the pistol is turned

with its lower side upward, and the cover *v* removed. The turning of the screw *u* allows the spiral spring *s*, with its piston *q*, to be withdrawn, when the cartridges can be placed into the case *o*, with their ball-heads downward. The spiral spring *s* is then again inserted, so that its piston *q* presses against the last cartridge, and is then secured in its place.

The cartridge-case *o* is made a little smaller at its forward end, so as to allow the cartridges to pass freely, but to prevent the piston or head *q* from passing out into the barrel when the chamber is empty.

To load and discharge the pistol, the lever *A* is pushed backward in the direction of the arrow, fig. 1.

This movement carries the arm *h*, which is connected through its nose *h'* with the tooth *f''* on the needle-bar *f*, and consequently said needle-bar *f*, backward, until the tooth *f''* hooks into the end of the spring lever *g*, and thus cocks the pistol.

The same movement of this lever *A* moves the cartridge-case *o* and the breech *a* upward, through the action of the roller *C* upon the arm *B*, attached to the chamber *o*, so that the mouth of the cartridge-case *o* comes opposite the mouth of the barrel *S*, when a cartridge, *P*, is pushed into said barrel by the action of the spiral spring *s* in the end of case *o* against the cartridges. When the pressure is removed from the lever *A*, the same is brought back into its original position by the action of the spring *k*, moving at the same time the cartridge-case *o* and breech *a* back into their primitive position, when the pistol is ready to be fired off.

This operation is performed by pressing against the trigger *z*, whereby the looped lever *i* is moved downward, operating thereby the spring lever *g*, so as to bring the same clear of the tooth *f'*, when the needle-bar *f* is propelled forward through the action of the spring, causing the needle *X* to penetrate, and thereby explode the priming and powder, and thus discharge the pistol.

The arrows in the forward end of the breech *a* indicate the direction of the gases produced by the exploding of the powder. The same pass behind the circular part of the ring *e*, and, acting against its projecting flanch, press the same tight against the end of the barrel, preventing thereby any escape of gases between the breech *a* and the barrel *S*. The projections *B B* on the end of the lever *A* prevent any upward movement of the breech *a* or cartridge-chamber *o* during the firing off of the pistol.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The vibrating cartridge-chamber *o*, turning near its rear end on a fixed pivot, *n*, and the breech *a*, bearing the charge-exploding needle or hammer, and secured on the forward vibratory end of the cartridge-chamber, the said parts being arranged substantially as described, in combination with the fixed barrel, so that, by their simple vibratory movement, they are alternately brought close in line with the barrel, substantially as and for the purpose herein specified.

2. The combination of the spring lever *g*, attached to the breech *a*, the bow-shaped lever *i*, and trigger *z*, turning on a center, *z'*, attached to the cartridge-case *o*, and operating substantially as and for the purpose specified.

3. The lever *A*, with its projections *B*, friction-roller *C*, and arm or lever *h*, in combination with the needle-bar *f* and slotted lever *B*, operating the needle-bar *f* and breech *a*, and cartridge-case *o*, simultaneous, substantially as and for the purpose hereinbefore described.

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