DIGEST OF PATENTS

RELATING TO

BREECH-LOADING AND MAGAZINE

SMALL ARMS,

(EXCEPT REVOLVERS,)

GRANTED IN THE UNITED STATES FROM 1836 TO 1873, INCLUSIVE.

CLASSIFIED AND ARRANGED ACCORDING TO THE MOVEMENT OF THE PRINCIPAL PARTS FOR OPENING AND CLOSING THE BREECH.

BY

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EXAMINER U. S. PATENT OFFICE,

In Charge of Class of Fire Arms, &c.

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This Digest is the only existing compilation of U. S. patents of breechloading and repeating small arms.

Originally issued in 1874 in extremely limited edition, surviving copies have been virtually unknown in even the most advanced of arms and weapons libraries. The work is actually so rare that a great many students, advanced collectors and ordnance experts were not even aware that such an important compendium existed.

Over 800 U. S. patents issued for breechloading and magazine small arms (with the exception of revolvers) during the "Golden Years" of arms development 1836 to 1873 are listed.

This "Digest of Patents" is of inestimable value to inventors, ordnance students and researchers, arms collectors, historians and will be among the most frequent of references in an arms library as a basic source of information. As a means for identifying trial or experimental pieces (usually unmarked on the guns themselves) this reference work is without parallel.

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PREFACE.

This Digest has been prepared from the official records of the United States Patent Office, and with a view to present the subject in a brief yet comprehensive manner, for the information of inventors, manufacturers, attorneys, and others interested in the art.

It has been the purpose of the compiler to group all patents relating to breech-loading and magazine fire-arms granted in the United States from 1836 to 1873, inclusive, in such manner that they may be readily referred to, and the numerous and important improvements made in both sporting and military arms, traced.

All inventions in this branch of art have been classified and arranged according to well-defined characteristics or systems, depending upon the movement of the principal parts for opening and closing the breech.

The index of names is an alphabetical-chronological list of inventors, and is the key, in connection with number or date, by which information relative to the records in each case, may be obtained from the Patent Office.

This opportunity is taken to express thanks to the Hon. M. D. LEGGETT, Commissioner of Patents, and to the various other gentlemen who have encouraged the prosecution of this undertaking.

V. D. STOCKBRIDGE.

W. W. HUBBELL.

No. 3,649.....February 1, 1844.

CLAIM.—The breech opening and closing on a rod, as a center, which runs parallel with the main barrel, in the operation of loading and firing fire-arms.

DAVID MINESINGER.

No. 6,139.....July 27, 1849.

CLAIM.—The hinged holder H, and cap I, in combination with the frustum of a cone metallic cartridge tube A, constructed, arranged and operated in the manner and for the purpose above set forth.

E. H. GRAHAM.

No. 10,084.....October 4, 1853.

(*Reissued January* 8, 1861.)

Reissue No. 1,123—

CLAIM.—First. The combination of a rotating magazine, separate rotating charge receiver or conveyer, and gun barrel, for operation together, substantially as specified.

Second. Operating the rotating magazine and rotating charge receiver actomatically by the action of the trigger-guard, or its equivolent.

Third. The arrangement of the series of ball chambers b, b, b, &c., and the series of powder chambers a.a,a, &c, in concentric circles, and on the side of the gun-barrel and out of the sight range, and so as not only to revolve and work against a common plate E, affixed to the side of the gun, but to operate in conjunction with a rotary charge receiver k, placed within the barrel as specified, such arrangement of the magazine of chambers not only causing the powder of the charges to be kept in separate chambers, so as to lesson the danger of accident, but causing the magazine to be so arranged as to be out of range of the sight in taking aim.

Fourth. So to combine the percussion hammer or cock, rotary charge- receiver, and the rotary magazine, with the trigger-guard, that, by the movement of the said guard away from the stock, they may be simultaneously put in motion and the hammer brought up to full cock, as specified.

H. B. WEAVER.

No. 13,691.....October 16, 1855.

CLAIM.—First. Combining the hammer with the laterally swinging chamber, for the purpose of effecting the simultaneous opening of the chamber and cocking of the hammer by means of the lever D, the pin k, slide d, and lever arm e, all operating substantially as described, whether the slide d, be a priming slide, or simply employed to connect the chamber A, with the lever D.

Second. Combining the priming slide d, with the lever D, and the hammer F, by means of a pin l, attached to the lever, working in a slot n, in the slide or link attached therto, so that the lever D, will draw back the hammer before moving the slide far enough to allow the the pin h, or its equivalent, through which the hammer strikes the cap, to move out of the receiving hole in the slide before the slide is acted upon by the lever substantially as set forth.

GILBERT SMITH.

No. 14,001.....December 25, 1855.

CLAIM.—First. The eccentric and traverse motions combined for opening and closing apertures by means of a cap perforated eccentic to itself as described.

Second. Closing the apperture by means of an inserted screw-pin being screwed forward direct from the cap when the eccentric throws it direct over the axis of the aperture as described.

J. C. SMITH.

No. 14,034.....January 1, 1856.

I do not claim or confine myself to the exact process of inserting the cartridges into the magazine, or to the exact shape shown of the casing G, or the number of cartridges or caps contained in their respective reservoirs, as these features may be altered to suit the size and nature of the fire-arm. Neither do I desire to claim the use of a laterally radiating breech, as such is claimed in the patent of W. W. Hubbell, July 1, 1844. Neither do I wish to claim exclusively the combining of the hammer with laterally swinging chamber for the purpose of effecting the simultaneous opening of the chamber and cocking of the hammer.

CLAIM.—First. What I claim, and desire to secure by letters patent, is the trigger N, with its spring e, link P, lever w, with its dog Q, and projection v, the hammer S, with its notch for receiving the dog, its projection u, and spring T, the lever 4, link L, with its spring m, lever M, link K, and lever I, or the equivalents to the above, in combination with the vibrating breech C; the whole being constructed and arranged substantially in the manner herein set forth for the purpose of imparting to the said breech the required lateral vibrating movement, retaining the same when required, and operating the hammer so as to discharge the load by simply operating the trigger only.

Second. The magazine B, containing the cylinder W, with its hollowed flanges and spring catches 5, in combination with the ratchet-teeth on the cross-piece 6, and the ratchet-wheel e, on the end of a vibrating breech, so that the movements of the latter may cause the said cylinder to carry round in succession the cartridges ready for insertion into the chamber of the breech.

Third. The sliding rod V, with its rod Z, and projection S, for the purpose of allowing the operator a ready means for inserting the cartridges into the chamber.

Fourth. The cap reservoir 12, with the cylinder 11, and its orifice for receiving the caps, in combination with the rod 10, arranged substantially as herein shown, for the purpose of readily placing the caps on the nipple of the breech.

FREDERICK NEWBURY.

No. 14,408.....March 11, 1856.

On pressing upon the handle of the hammer in cocking it, the lever V2 will be pressed into its recess, and thereby the picker V, will be thrown forward under the burst caps and lift them off the cone.

CLAIM.—First. The combination of the wheel-gearing and pawl with the trigger, by which means the block C, is revolved. (The wheel-gearing itself is not claimed.) The priming-cap magazine, in combination with the trigger, to permit the capping of the cone by the trigger. The spring guard-plate W, to prevent the fire from the upper chamber extending to the lower.

Second. The combination of the picker attached to the hammer, substantially as set forth in the above specification.

CHARLES W. ALEXANDER.

No. 20,315.....May 25, 1858.

CLAIM.—The replaceable rifled cylinder, with dovetail for cap, and notch for holding it in its place, in combination with the revolving chamber that bears it and holds it to its place.

J. HUNTER SEARS.

No. 26,526.....December 20, 1859.

CLAIM.—Combining and applying the hinged breech-piece D and the breech-screw E, substantially as specified, so that the force applied to a lever attached to a screw, may serve first to withdraw the screw and afterwards throw out the breech-piece, as described.

EDWARD MAYNARD.

No. 30,537.....October 30, 1860.

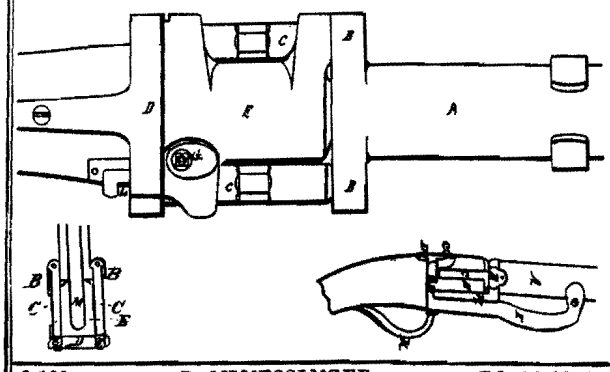
CLAIM.—First. The employment of a solid-headed hinged cone seat B, for closing the lateral opening between the mouth of the chamber of the barrel and the solid head at the after end of said opening, when the proportions of the said cone-seat and the lateral opening which receives the same are such that a thin-sided metallic cartridge, (either loaded or unloaded,) can be readily placed within the chamber of the barrel when the cone-seat is in its open position, and then be securely retained in said chamber by throwing the cone-seat into its closed position, substantially as set forth.

Second. When the mouth of a chamber of a breech-loading fire-arm is closed by the head of a hinged block B, which forms the cone-seat of said arm, I also claim the placing of a thin-sided metallic cap within the said chamber, for the purpose of forming a tight joint between it and the said hinged block, substantially as set forth.

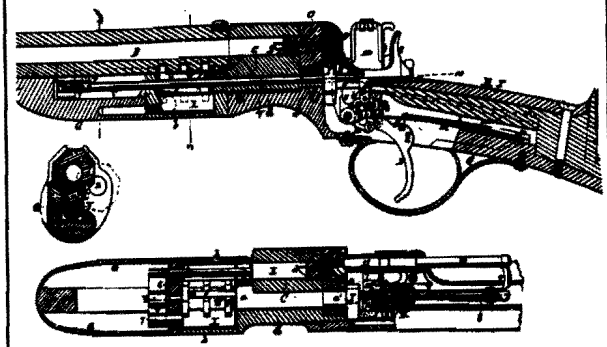
Third. Giving the bottom of the thin-sided chamber cup *i*, of my improved fire-arm, such a degree of thickness and strength that either a laterally projecting arm or a looped thong or cord may be combined therewith, of such a size and shape as shall enable the said cap to be readily withdrawn from the chamber of the barrel, substantially as set forth.

Fourth. When the lateral opening between the mouth of the chamber of the barrel and the solid head at the after end of said opening is closed by a properly proportioned hinged cone-seat, I also claim so proportioning the hinges of said cone-seat that the recoil thereof, at the instant of firing the arm, will be wholly exerted against the solid head opposite the after end of said cone-seat.

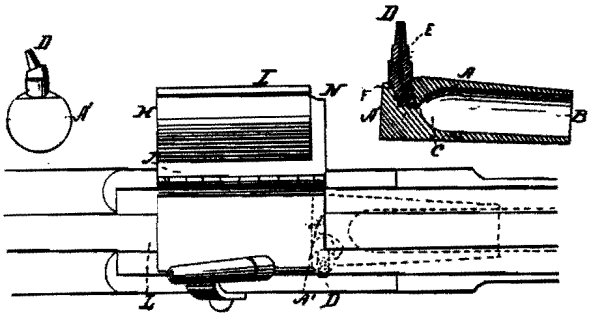
3,644. W. W. HUBBELL. July 1, 1844.



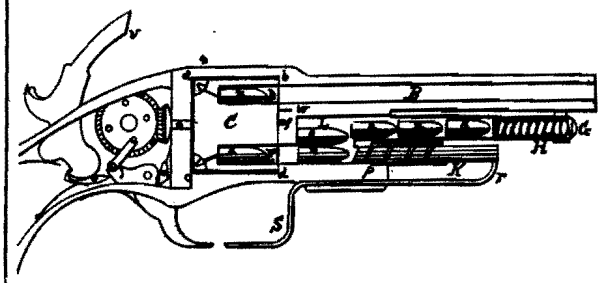
14,034. J. C. SMITH. Jan. 1. 1856.



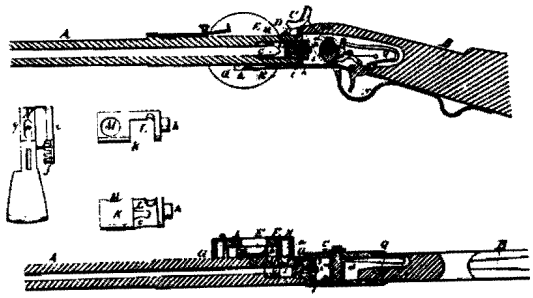
6,139. D. MINESSINGER. Feb. 20. 1849.



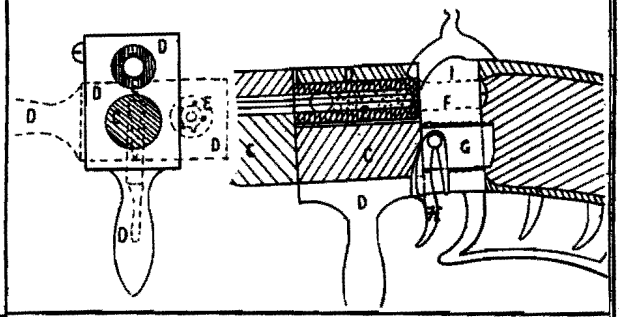
14,406. F. NEWBURY. Mar. 11. 1856.



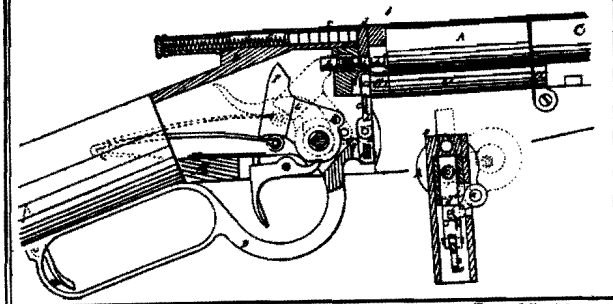
10,084. E. H. GRAHAM. Oct. 4, 1853.



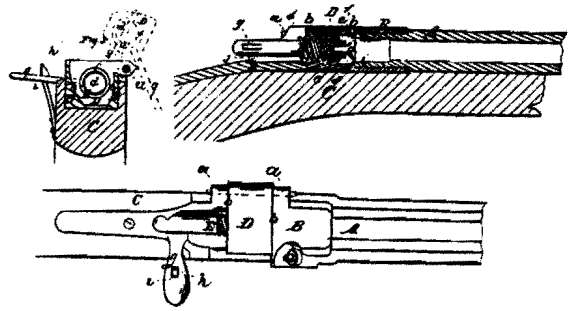
20,815. C. W. ALEXANDER. May 25, 1858.



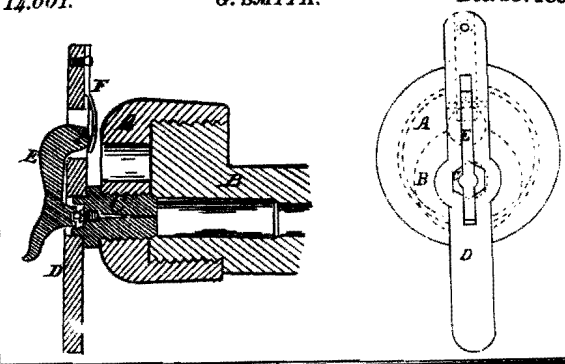
13,691. H. B. WEAVER. Oct. 16. 1855.



26,526. J. H. SEARS. Dec. 20. 1859.



14,001. G. SMITH. Dec. 25. 1855.



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