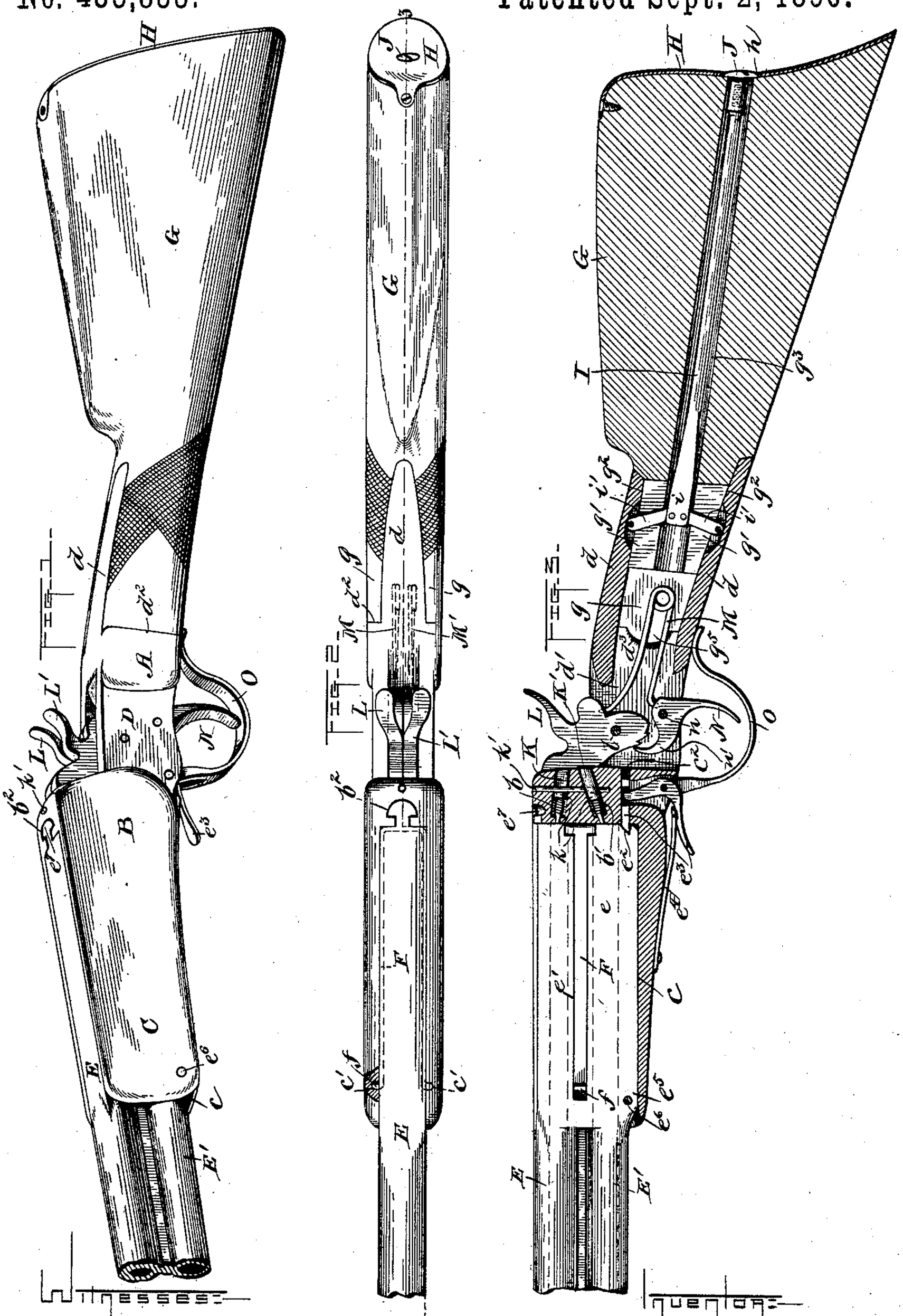
(No Model.) 2 Sheets—Sheet 1.

A. L. HOCKETT.

BREECH LOADING GUN.

No. 435,833. Patented Sept. 2, 1890.



Witnesses:
Severance.
W. J. Barden.

Inventor:
Aaron L. Hockett,
By L. Deane
his Attorney.

(No Model.) 2 Sheets—Sheet 2.

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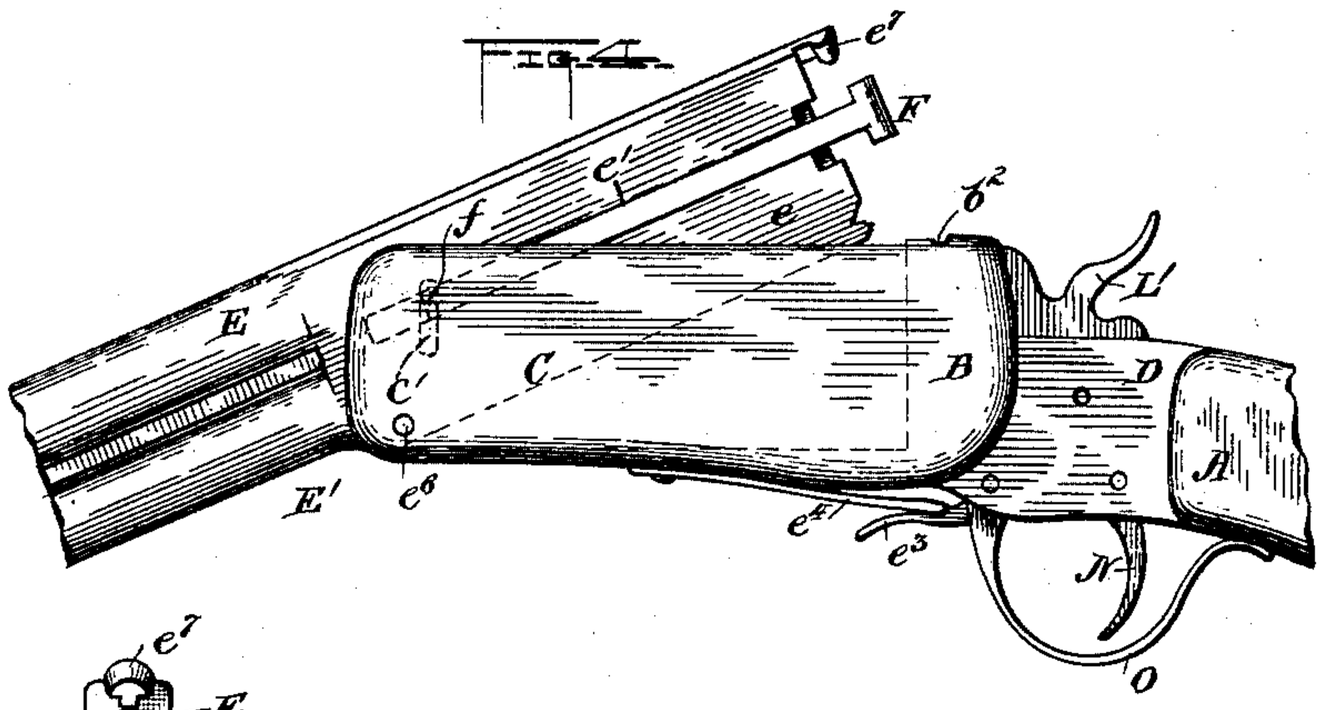


FIG. 5.

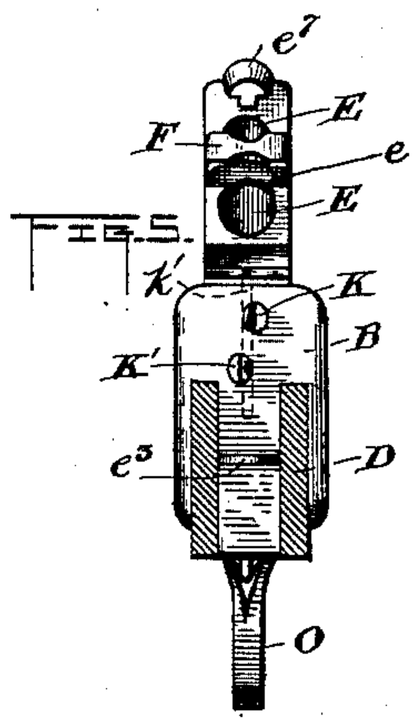


FIG. 6.

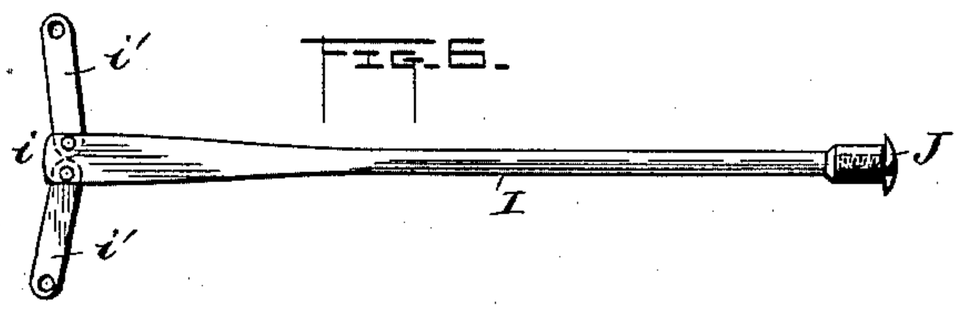


FIG. 8.

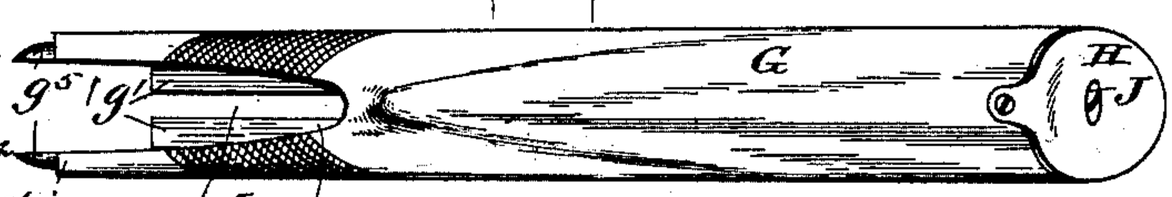


FIG. 7.

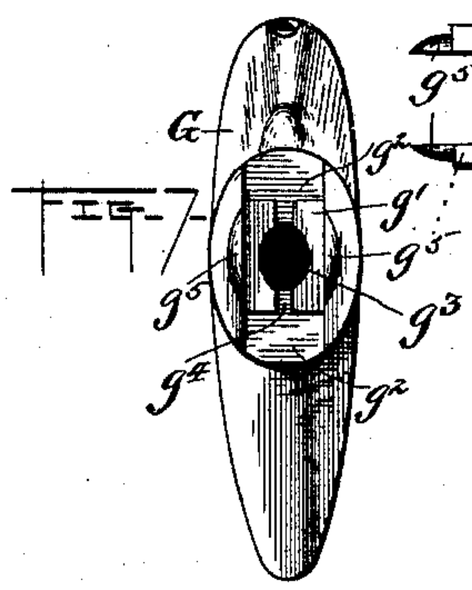


FIG. 9.

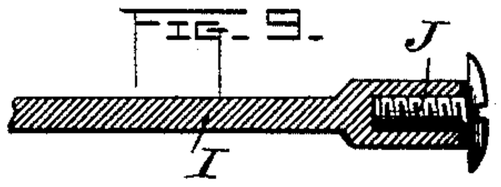
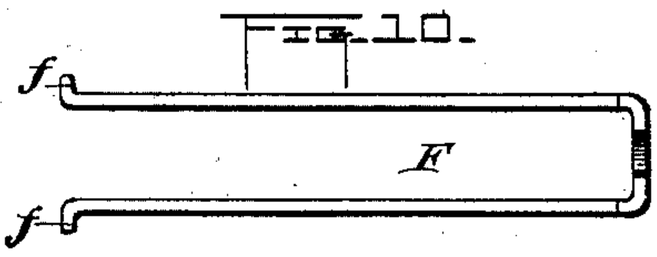


FIG. 10.



Witnesses:—
Geverance.
Jr. J. Barden.

Inventor:—
Aaron L. Hockett,
By L. Dean
his Attorney.

UNITED STATES PATENT OFFICE.

AARON L. HOCKETT, OF JONESBOROUGH, INDIANA.

BREECH-LOADING GUN.

SPECIFICATION forming part of Letters Patent No. 435,833, dated September 2, 1890.

Application filed May 6, 1890. Serial No. 350,814. (No model.)

To all whom it may concern:

Be it known that I, AARON L. HOCKETT, a citizen of the United States, residing at Jonesborough, in the county of Grant and State of Indiana, have invented certain new and useful Improvements in Fire-Arms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to improvements in fire-arms, particularly pertaining to that class usually called "breakdown arms;" and its main objects are to provide means whereby the shell-retractor will more easily and surely draw the shell from the rear ends of the barrels than in arms of ordinary construction; also, means whereby the butt-stock may be easily and quickly attached to the rear arms or extensions of the main or metal stock or secured and tightened thereon; also, means whereby either one of the two barrels with which the improved fire-arm is provided may be fired separately or both fired simultaneously by means of a single trigger; also, to the strength and simplicity of the device as a whole, and, finally, to various other points or features more or less intimately dependent on the foregoing.

The invention consists, then, in the structure of the several parts and in the combination of these parts, whereby a very simple, durable, and effective device is produced, and one that is remarkably easy to handle and not at all liable in ordinary use to get out of repair, all as will be hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the claims hereto appended.

In the drawings, in which similar letters of reference designate corresponding parts, Figure 1 represents a perspective view of a fire-arm embodying the invention, the barrels being broken off. Fig. 2 represents a plan view of the same. Fig. 3 represents a vertical longitudinal section on the line 3 3 of Fig. 2. Fig. 4 represents a side view with the barrels tilted to remove the shells. Fig. 5 represents a vertical transverse section immediately in front of the hammers or flush with the rear end of the breech-block proper with the barrels tilted and the retractor attached thereto. Fig. 6 represents a detail side view of the mechanism to hold in position and tighten the butt-stock. Fig. 7 represents an end view of the butt-stock, looking at the inner end. Fig. 8 represents a plan view of the butt-stock. Fig. 9 is a detail in section of the outer end of the binding-rod, screw, &c. Fig. 10 is a detail in plan of the retractor-piece detached.

The invention resolves itself into three mechanisms for separate purposes, each attached to the metal or main stock, of which the breech-block forms an integral part. These mechanisms will, as far as possible, be described separately for the sake of clearness.

Referring to the drawings by letter, A designates the metal or main stock of the fire-arm, the butt-stock being detached. The said stock consists of the breech-block B, the forward projection C for the attachment of the barrels, and the rear projection D for the attachment of the hammers and triggers. The projection D is provided with the upper and lower rearwardly-extending arms *d d* for the attachment of the butt-block, by means hereinafter described.

The breech-block is provided with the upper and lower firing-pin recesses *b b'*, which are preferably not vertically aligned, being respectively at equal distances on opposite sides of the central longitudinal plane of the breech-block.

b^2 is a recess extending rearward from the front end of the breech-block and adapted to receive a projection from the upper surface of the heel of the upper barrel.

The projection C extends frontward from the breech-block and is provided with the longitudinal recess *c*, open at its front end to receive the barrels, and with the similar opposite straight vertical recesses *c' c'* in the inner surfaces of its walls near the front upper corners thereof, for a purpose hereinafter explained; but though now shown as straight and vertical they can easily be made inclined or otherwise, so as to accomplish very good results.

c^2 is a recess, of proper shape, extending from the lower surface of the metal stock

through the breeck-block and opening into the recess *c* near the bottom thereof. This recess c^2 receives the catch that locks the barrels.

The projection D extends rearward from the breech-block and is provided with the lock-recess *d'* of suitable shape. It is also provided with the vertical shoulders d^2 at its rear end, from which the arms *d d* extend, which shoulders are beveled on their inner edges, as at d^3 d^3, between said arms.

E E' are the barrels, arranged one above the other and integral with each other, their common heel *e* being provided centrally in its end and in each side with the continuous groove *e'* to receive a yoke-shaped retractor.

e^2 is a transverse groove in the lower part of the end of the heel *e*, registering with the adjacent opening of the recess c^2 when the barrels are not tilted, and being engaged by the catch e^3, which is of usual construction, and is pivoted in the recess c^2, and e^4 is a spring secured to the lower surface of the stock A, with the free end bearing on the lower frontwardly-extending arm of the catch e^3 to force the latter into engagement.

The connected barrels are provided with a perforated depending projection e^5, pivoted at e^6 in the recess *c* vertically below the recesses *c' c'*.

e^7 is a projection on the heel *e*, that enters the recess b^2 and steadies the barrel in position.

F is a yoke-shaped extractor resting in the groove *e'*, with the ends *f* of its arms bent outwardly and inserted in the corresponding vertical recesses *c' c'*.

When the barrels are untilted—that is, in a normal position—the cross-bar at the end of the extractor engages against the lower edge of the end flange of the cartridge-shell. Now as the barrel is tilted it turns on the pivot e^6 and would not alone give motion to the extractor; but as the ends *f* of the extractor rest in the vertical recesses *c'* the extractor cannot swing freely with the barrels, but is forced rearward in the groove *e'*, carrying the shell against which it bears rearwardly with it far enough to permit the shell to be easily withdrawn by the hand. In practice the action of this extractor is positive and sure, and this is accomplished by its simplicity of construction and the peculiar manner in which it is operated.

G designates the butt-stock provided with the side plates *g g* and the rectangular blocks *g'* between said plates and adjacent to the rear end of the butt-stock. The said block is narrower than the side plates and forms therewith the upper and lower recesses g^2 g^2 to receive the ends of the arms *d d*.

g^3 is a central opening extending through the block *g'* and the rear end of the butt-stock, and g^4 is a vertical slit of sufficient width extending through the block. Upon the ends of the side plates *g* are inwardly and frontwardly beveled projections g^5 g^5, as shown. When the butt-stock is in position, the ends of the arms *d* rest in the recesses g^2, and the beveled projections g^5 rest within and against the beveled inner edges d^3 of the shoulders d^2. H is the metal butt-plate provided with an opening or recess *h*, registering with the opening g^3.

The mechanism to attach and tighten the butt-stock is constructed as follows: I is a longitudinal binding-rod extending into the opening g^3, provided with an axial threaded recess in its rear end, and having its front end pivoted to the center of a toggle-joint *i*, the outer ends of the bars *i' i'* of which are respectively pivoted in shallow recesses in the inner surfaces of the upper and lower arms *d* near the ends thereof. J is a screw with its head resting in the recess or opening *h* of the butt-plate and its shank passing into the opening g^3 and engaging the threaded opening in the rear end of the binding-rod. It is evident from the above description that when the screw J is turned up the binding-rod I will be drawn rearward, making the angle of the toggle-joint more acute, and thereby bringing the arms *d d*, which are sufficiently elastic, nearer together, so that they will bind upon the upper and lower surfaces of the block *g'*. The head of the screw J will also force the butt-stock frontward against the shoulders d^2, and the beveled projections g^5 engaging the bevels d^3 the plates *g* will be forced toward each other thereby, the slit g^4 in the block *g'* making such inward motion more easy. This inward binding of the plates *g* upon the arms *d* is rendered more effective by making said arms slightly converging rearwardly, the inner surfaces of the plates *g* having corresponding inclines, as shown.

The firing mechanism is constructed as follows: K K' are the firing-pins in the respective recesses *b b'*, the said pins being of the usual construction and surrounded by spiral springs that force them rearward. These pins have their rear ends preferably reduced and shouldered, the shoulders *k k* being on the inner side of the pins and of sufficient distance from the rear ends of the pins to permit the dividing-pin *k'* to pass down through a proper opening in the breech-block, between the facing flat surfaces of the firing-pins, without being in danger of impinging upon said surfaces, and in a suitable position to prevent the shoulders from striking it when the firing-pins move rearward. This shouldering of the firing-pins permits them to be brought nearer to vertical alignment. L L' are two similar hammers pivoted in the lock-recess *d'* in the projection D upon the same transverse fulcrum or pivot rod *l*, and their front or percussion faces register, respectively, with the rear ends of the firing-pins K K'. M M' are two similar main springs of ordinary construction acting in the usual way upon the hammers L L', respectively, so that either hammer can be cocked separately. N is a

trigger pivoted upon a transverse rod *n*, having its ends secured in the walls of the lock-recess, and with its upper arm *n'* sufficiently broad to engage simultaneously the lower arms of both hammers, there being no piece of mechanism intervening between the trigger and the two hammers. Thus if either hammer alone is cocked the pulling of the trigger will discharge only the barrel to which said hammer pertains; but if both hammers are cocked the pulling of the trigger will discharge both barrels simultaneously. O is the trigger-guard secured to the under side of the lock projection D, and having its front end bifurcated so that the barrel-catch can be placed farther rearward, the lower horizontal arm of said catch entering said bifurcation.

If desired, the butt-stock may have an integral pistol-butt or hand-hold projecting downward from its lower edge.

The barrels may both be rifled or both be smooth, or one smooth and one rifled. The gun can be used as a target or sporting gun.

Having described my invention, I claim—

1. In a firing-arm, the combination, with a barrel pivoted upon the main stock in a recess therein and tilting thereon, of a yoke-shaped extractor seated in a continuous groove extending horizontally in both sides and the rear end of the barrel above the pivoted axis thereof, and with its ends bent outward and inserted in vertical recesses in the inner surfaces of the recess in which the barrel rests above the pivotal axis of the barrel, so that the tilting of the barrel will cause the yoke-shaped extractor to be moved rearward, and thereby move the cartridge-shell outward from the heel of the barrel, substantially as specified.

2. In a firing-arm, the combination, with the main stock having a projection extending frontward from the breech-block and provided with a longitudinal recess open above and at its front end, of the barrel pivoted within said recess near the lower front corner thereof, and a yoke-shaped extractor seated in a horizontal continuous recess in the sides and rear end of the barrel, and having its ends bent outward and inserted in vertical recesses in the inner surfaces of the walls of said recess above the pivotal axis of the barrel, substantially as specified.

3. In a fire-arm, the combination of the main stock having a projection extending from the breech-block provided with a horizontal recess open at top and at its front end, the spring locking catch to prevent the barrel from tilting, the barrel pivoted in said longitudinal recess near the lower front corner thereof, and the yoke-shaped extractor resting in a continuous groove in the sides and rear end of the barrel above the pivotal axis thereof, with its ends bent outward and inserted in straight vertical recesses in the inner surfaces of the walls of the longitudinal recess above the pivotal axis of the barrel, substantially as specified.

4. The combination, with the main stock having a projection extending frontward from the breech-block and provided with a longitudinal barrel-recess and opposite vertical recesses in the inner walls of the barrel-recess near the upper front corner thereof, of the barrel pivoted at its lower edge in the barrel-recess near the lower front corner thereof and the yoke-shaped extractor seated in a continuous groove of the barrel and having its ends turned outward and inserted in the vertical recesses above the pivot or fulcrum of the barrel, substantially as specified.

5. In a fire-arm, the combination, with the main stock having upper and lower rearwardly-projecting arms, of the butt-stock having side plates to fit laterally upon said arms, a block between said plates to enter between the arms of the main stock, and the mechanism, substantially as described, whereby the butt-stock is moved frontward on the main stock and the arms of the main stock are drawn inward to bind on the block of the butt-stock, substantially as specified.

6. The combination, with the main stock D, having the upper and lower arm *d d* and the vertical shoulders d^2, beveled on their inner edges d^3 between said arms, of the butt-stock having the side plates *g*, the vertically-split block *g'* between said plates, the longitudinal opening g^3 and beveled projections g^5, and means, substantially as described, whereby the butt-stock is attached to and bound on the main stock, as specified.

7. In a fire-arm, the combination, with the main stock having the upper and lower rearwardly-projecting arms, which arms are slightly elastic, and the butt-stock having side plates to rest against said arms and a block between said plates to enter between the arms, of the toggle-joint connecting the arms, the binding-rod connected to the toggle-joint, and means, substantially as described, whereby said rod can be drawn rearward, as specified.

8. The combination, with the main stock having the upper and lower rearwardly-projecting arms *d d* and the butt-stock having the side plates *g* and block *g'*, of the toggle-joint connecting the said arms, the binding-rod having an axial-threaded recess in its rear end, and the screw J, with its shank engaging in said recess and its head resting in an opening or recess of the butt-plate, substantially as specified.

9. In a fire-arm, the combination of the main stock, the barrels situated one above the other, the firing-pins for said barrels, which pins are not vertically aligned, the two similar hammers having separate main springs and the single trigger impinging upon the hammers, whereby both of said hammers may be simultaneously released, substantially as specified.

10. In a fire-arm, the combination, with the main stock having the lock-recess and the breech-block, of the firing-pins K K′, having the facing shoulders *k*, the dividing-pin *k′*, the two similar hammers L L′, the similar main springs M M′, actuating the hammers L L′, respectively, and the single trigger, by means of which either hammer may be released simultaneously.

In testimony whereof I affix my signature in presence of two witnesses.

AARON L. HOCKETT.

Witnesses:
JOSEPH ROY,
W. J. BARDEN.