

(No Model.)

J. H. BROWN.

FIRE ARM.

No. 307,706.

Patented Nov. 4, 1884.

Fig. 2.

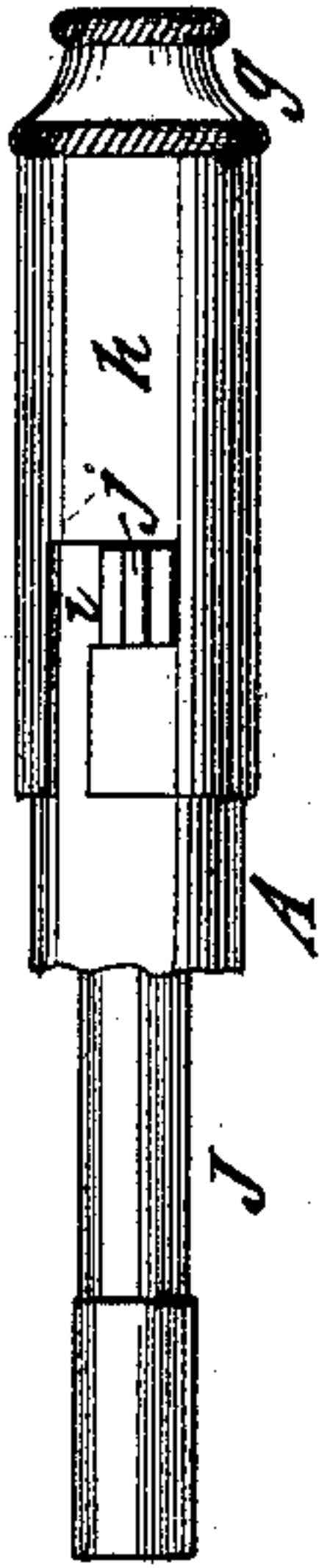


Fig. 4.

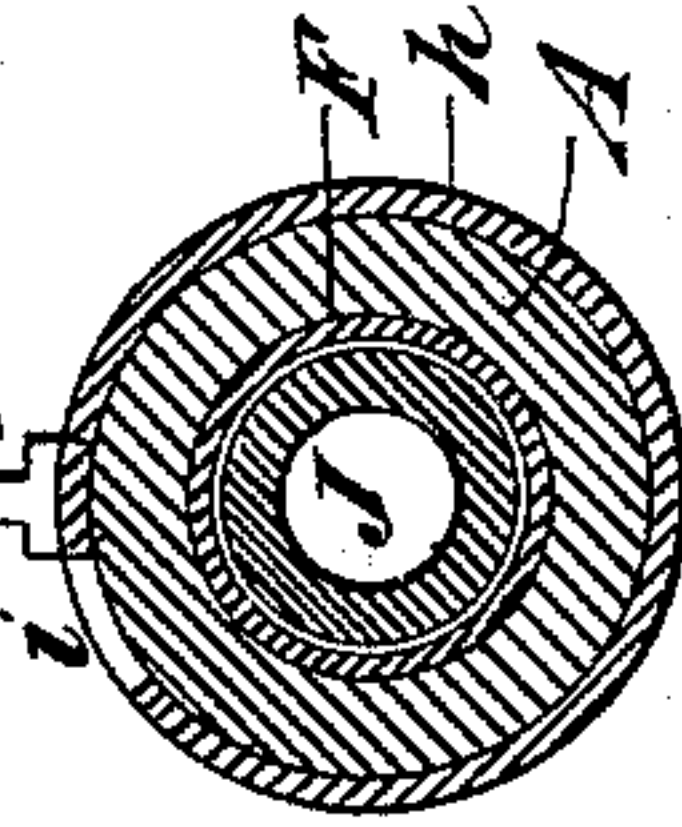


Fig. 1.

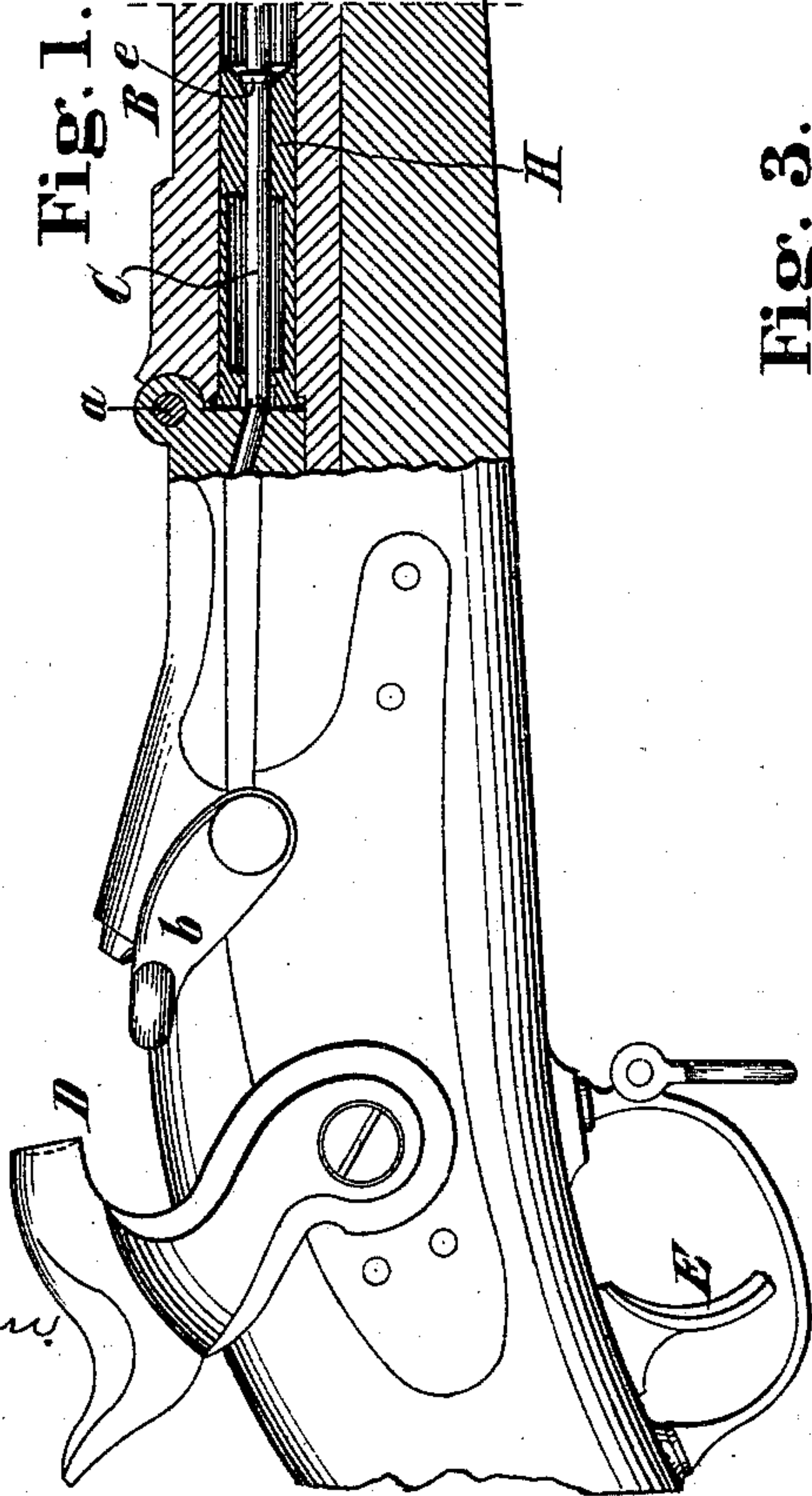
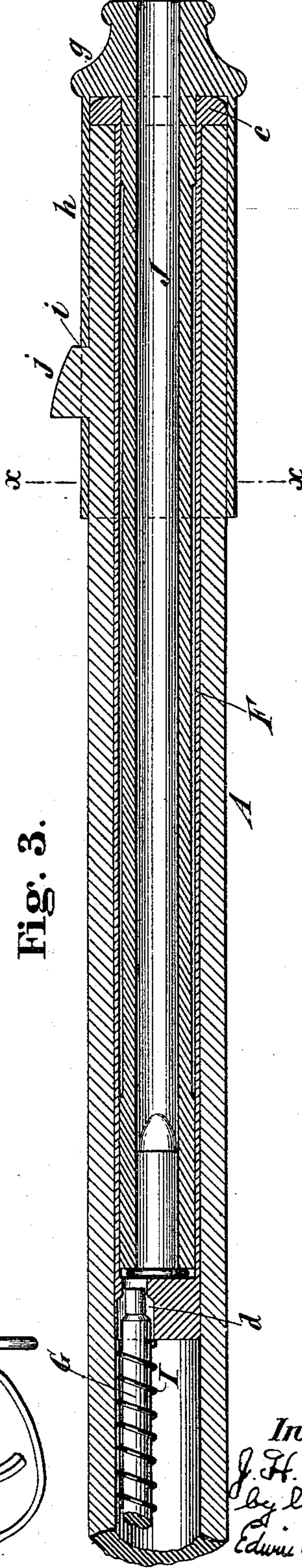


Fig. 3.



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FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 307,706, dated November 4, 1884.

Application filed December 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. BROWN, of New York, in the county and State of New York, have invented a certain new and useful Improvement in Fire-Arms, of which the following is a specification.

An important object of this improvement is to provide in a simple manner an auxiliary barrel of small caliber for a musket, rifle, or other fire-arm, so that small ammunition can be used for practice shooting.

To this end the improvement consists in the combination, with the barrel of a musket, rifle, or other fire-arm, of an auxiliary barrel adapted to be inserted in the muzzle and means for securing the auxiliary barrel in place.

Another object of the improvement is to prevent the accidental discharge of a fire-arm of the class in which a firing-pin is used.

In ordinary fire-arms of this class a due consideration for safety has rendered it necessary to keep the hammer at half-cock, after the loading of the arm, until the time when the arm was to be discharged, and oftentimes the hammer has been accidentally forced forward by a violent blow or shock, and the arm has prematurely been discharged.

The improvement with a view to obviate the possibility of such an occurrence consists in the combination, with a fire-arm, of a firing-pin made of such length that it cannot at the same time be in contact both with the hammer and the ammunition. The discharge can then be effected only by imparting to the firing-pin through the hammer a momentum that will cause it to forcibly move into contact with the ammunition. In consequence of this the hammer may be kept in its extreme forward position, and then cannot be forced further forward so as to impart an impulse to the firing-pin. A spring will preferably be employed to normally maintain the firing-pin in its rearmost position.

In the accompanying drawings, Figure 1 is a partly-sectional side view of portions of a fire-arm embodying my improvement. Fig. 2 is a top view of the muzzle portion of the barrel, the auxiliary barrel, and the means whereby the auxiliary barrel is secured in place. Fig. 3 is a longitudinal section, on a larger scale, of the muzzle portion of the main

barrel, a longitudinal section of the auxiliary barrel, and the means for securing the latter in place, and a side view of the forward portion of the firing-pin whereby ammunition in the auxiliary barrel may be discharged; and Fig. 4 is a transverse section of the parts shown in Fig. 3, delineated on the same scale as Fig. 3, and taken at the plane of the dotted line *x x*, Fig. 3, looking forward.

Similar letters of reference designate corresponding parts in all the figures.

A designates the main barrel of the fire-arm.

B designates a breech block hinged in place by a pin, *a*, at its forward end, and secured, when closed, by a catch, *b*, at the rear end.

C designates a firing-pin arranged in this breech-block for discharging ammunition in the main barrel.

D designates the hammer of the fire-arm, and E designates the trigger. All these parts may be of the ordinary or any suitable construction.

F designates a shell, made of any suitable metal, and inserted in the muzzle portion of the main barrel. Throughout the whole length or at the ends this shell fits snugly in the main barrel, and at the outer end it is provided with a flange, *c*, which extends over and fits against the outer end of the main barrel. By means of this flange rearward movement of the shell is prevented. At the rear end this shell is provided with a cavity, *d*, in which is received the forward end of a firing-pin, G, whereby ammunition in the auxiliary barrel may be discharged. The rear end of this firing-pin fits in a guide-piece, H, which is inserted in the ammunition-chamber at the rear end of the main barrel. Preferably the guide-piece will be made flaring at the forward end, in order to facilitate the insertion of the firing-pin G into it from the muzzle of the main barrel. It will be best to provide the firing-pin G, near the rear end, with a shoulder or flange, *e*, adapted to abut against the forward end of the guide-piece, so as to prevent this firing-pin from moving too far rearward. The forward end of the firing-pin C abuts against the rear end of the firing-pin G. A spring, I, surrounds the forward portion of the firing-pin G, resting at the rear end against a shoulder or flange, *f*, with which the firing-pin is provided, and at the forward end against the rear of the shell F.

J designates an auxiliary barrel, made of any suitable metal, and inserted into the shell F from the forward end of the latter. It may be rifled, if desirable. At the forward end it has a flange, *g*, which bears against the forward side of the flange *c* of the shell F. It also is provided with a shell, *h*, that extends rearwardly from the flange *g* and surrounds the muzzle portion of the main barrel. This shell may be made of any suitable metal, and secured to the flange *g* in any appropriate way. It has an L-shaped slot, *i*, which engages with a projection, *j*, on the exterior of the main barrel. A catch is thus formed of the nature of an ordinary bayonet-lock, and it prevents any forward movement of the auxiliary barrel. The firing-pin G is shorter than the distance between the rear end of the auxiliary barrel and the forward end of the firing-pin C in its foremost position; hence ammunition in the auxiliary barrel can be discharged only by imparting, through the hammer and the firing-pin C, a momentum which will cause it to be impelled forcibly against such ammunition. This insures safety, because it renders it practicable to keep the hammer down in its foremost position after loading. I desire to cover such a firing-pin under all circumstances. I mean whether it is a firing-pin in the ordinary position—as, for instance, that occupied here by the firing-pin C—or an auxiliary firing-pin, as I deem it of great value.

When the fire-arm is to be used for large ammunition, the auxiliary barrel, the shell F, the firing-pin G, and the guide-piece H are removed; but when small ammunition is to be used these parts are to be applied as shown in the drawings. The auxiliary barrel will have to be removed for loading and then reinserted.

The rear end of the shell F forms the breech for the auxiliary barrel J. The shell F prevents gases arising when a discharge occurs in the auxiliary barrel from fouling the main barrel.

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

1. The combination, with the barrel of a

fire-arm, of an auxiliary barrel, a breech therefor in rear of the auxiliary barrel, said breech and said auxiliary barrel being adapted to be inserted in the main barrel from the muzzle independently of each other, and means acting at the exterior of the muzzle portion of the main barrel for securing the auxiliary barrel and its breech in place, substantially as specified.

2. The auxiliary barrel J, adapted to be inserted in the muzzle of the main barrel of a fire-arm, provided with a flange, *g*, integral therewith, and with a shell, *h*, that is adapted to surround the said main barrel and engage with means whereby the auxiliary barrel will be secured in place, substantially as specified.

3. The combination of the barrel A, the shell F, provided with the flange *c*, having a breech at the rear end, and adapted to be inserted in the barrel from the muzzle, the auxiliary barrel J, adapted to be inserted in the barrel A from the muzzle, and means for securing the said shell and auxiliary barrel in place, substantially as specified.

4. The combination of the barrel A, the auxiliary barrel J, a breech for the latter, both the breech and the auxiliary barrel being adapted to be inserted in the main barrel from the muzzle, a firing-pin also adapted to be inserted in the main barrel from the muzzle, and the guide-piece H, adapted to be inserted in the main barrel from the breech, substantially as specified.

5. In a fire-arm, a barrel, a firing-pin, means for operating the firing-pin, and a spring for normally keeping the firing-pin in its rear-most position, the firing-pin being too short to reach from the means whereby it is operated to ammunition in the barrel, and all the parts being so combined that the firing-pin may be projected forward with momentum sufficient to discharge the ammunition, substantially as specified.

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Witnesses:

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