

J. D. PLIONES & P. G. COLLIAS.
AUTOMATIC BAYONET.

APPLICATION FILED JUNE 18, 1912.

Patented Mar. 11, 1913

2 SHEETS—SHEET 1.

1,055,416.

Fig. 3.

WITNESSES

S. S. Stephens
E. George

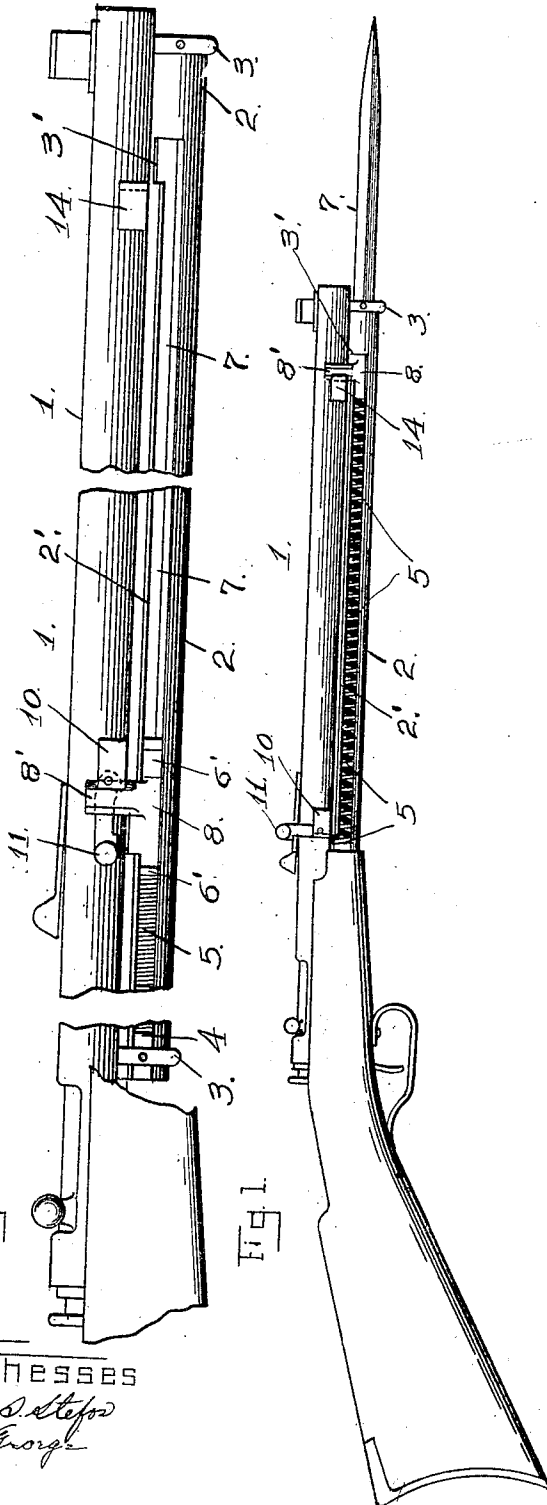
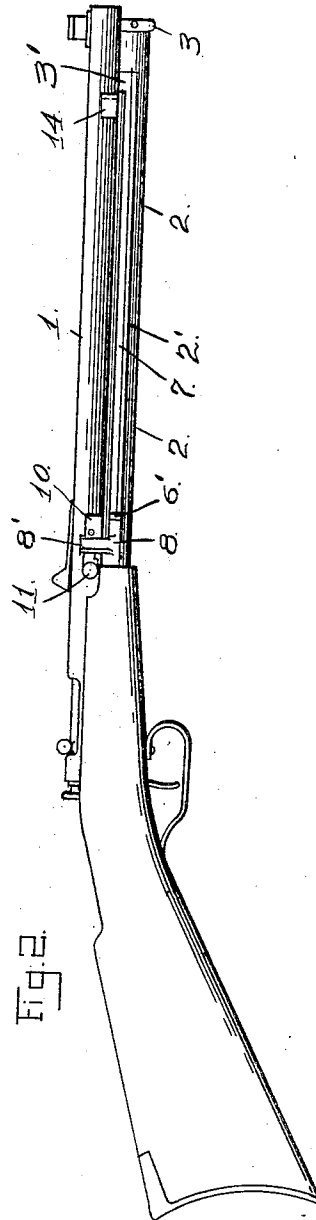


Fig. 1.

Fig. 2.



INVENTORS
John D. Pliones
Peter G. Collias

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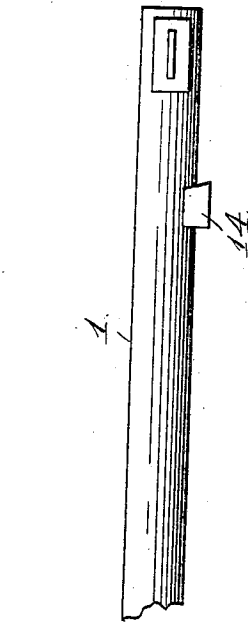


Fig. 5.

Witnesses
S. S. Steffen
E. George

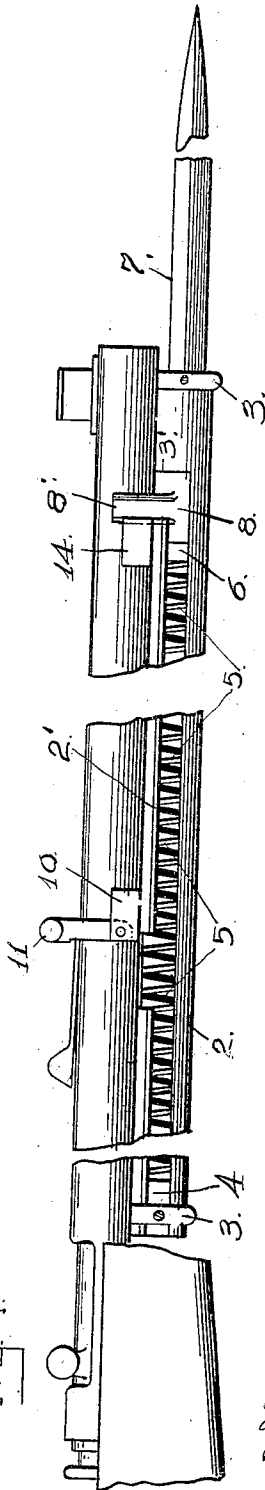


Fig. 4.

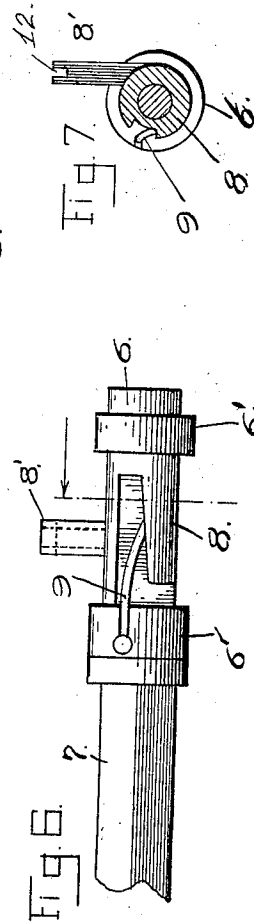


Fig. 6.

Inventors
John D. Pliones
Peter G. Collias

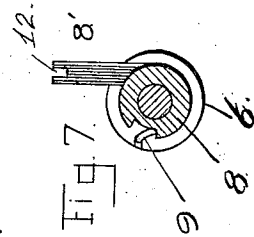


Fig. 7.

UNITED STATES PATENT OFFICE.

JOHN D. PLIONES AND PETER G. COLLIAS, OF BERKELEY, CALIFORNIA.

AUTOMATIC BAYONET.

1,055,416.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Application filed June 18, 1912. Serial No. 706,493.

To all whom it may concern:

Be it known that we, JOHN D. PLIONES and PETER G. COLLIAS, subjects of the King of Greece, residing in the city of Berkeley, county of Alameda, and State of California, have invented a new and useful Improvement in Automatic Bayonets, of which the following is a specification.

Our invention relates to automatic bayonets wherein a spring acting in conjunction with retaining and releasing latches causes a bayonet to extend beyond the end of the rifle barrel or to be held within a tube beneath the said barrel and its objects are, first, to provide means whereby a bayonet can be brought instantly into position for use, second, to provide means for maintaining the bayonet in an extended position when pressure is brought to bear on the end thereof, and third, to provide a place to carry the bayonet, when not in an extended position, that will not interfere with other equipment carried by the soldier.

We accomplish these several objects by means of the device illustrated in the accompanying drawings forming part of this specification in which—

Figure 1 is a view of a rifle with the bayonet in an extended position. Fig. 2 is a view of a rifle with the bayonet withdrawn or concealed. Fig. 3 is an enlarged broken detailed view of the means for keeping the bayonet withdrawn or concealed. Fig. 4 is a similar view with the bayonet extended. Fig. 5 is a broken plan view of the rifle barrel disclosing the retaining lugs and the latch for locking the bayonet in its concealed position. Fig. 6 is a broken detailed view of the mechanism for locking the retaining latch when the bayonet is extended and Fig. 7 is a section taken on line X—X Fig. 6.

A rifle barrel 1 has rigidly secured to its under side, by means of ring brackets 3, a tube 2, having a longitudinal slot 2' with an offset portion 3'. The tube 2 is closed at one end with a plug 4. Between the plug 4 and the butt 6 of the bayonet 7 is interposed a spring 5 which is adapted to cause the bayonet 7 to project beyond the end of the rifle barrel 1 when the tension of the said spring is released, as shown in Fig. 1 of the drawings, by disengaging the tangential extension 8' of the sleeve 8 from the lug 10 secured to the rifle barrel 1.

For the purpose of preventing the inad-

vertent release and thus causing the accidental projection of the bayonet 7 the tangential extension 8' of the sleeve 8 is provided with a groove 12 which is adapted to receive a retaining latch 11 pivotally secured to the lug 10. The groove 12 being transverse to the direction in which the tangential extension 8' must rotate the said retaining latch 11 is adapted to prevent any such inadvertent release. When, however, it is desired to cause the bayonet 7 to project beyond the rifle barrel 1, the pivoted latch 11 which is secured to retaining lug 10 is released from the groove 12 of the tangential extension 8'. The tension of the spring 5 being exerted against the butt 6 of the bayonet 7, and, consequently, against the tangential extension 8' pivotally secured thereto, by reason of the chamfered forward surface of the said arm, the said tension of the spring 5 tends to seat the arm 8' more firmly into the recess formed by the rifle barrel 1 and the retaining lug 10. A slight pressure, on the tangential extension 8' applied transversely to the rifle barrel 1 will cause the said tangential extension 8' to move beyond the plane of the retaining lug 10. As soon as the said tangential extension 8' is disengaged from the said retaining lug 10, the tension of the spring 5, which is interposed between the plug 4 and the butt 6 of the bayonet 7, causes the said bayonet 7 to be instantly projected beyond the end of the rifle barrel 1. While the bayonet is being propelled toward the end of the rifle barrel 1 the longitudinal movement of the tangential extension 8' is permitted by the slot 2' within the tube 2. For the efficient retention of the bayonet 7 in its outward position, the tangential extension 8' is caused, by means of a spring 9 rigidly secured to one of the collars 6', to move into an offset portion 3' of the slot 2' and engage the chamfered edge of an outwardly retaining lug 14. Any thrust or pressure which is now brought to bear upon the end of the bayonet 7 will be transmitted by means of the tangential extension 8' to the retaining lug 14 which is rigidly secured to the outer end of the rifle barrel 1.

The tangential extension 8' is chamfered on its forward and rear edges, likewise the forward edge of the forward lug 14 and the rear edge of the rear lug 10, so that any pressure on the part of the tangential extension

sion 8' toward either of the lugs will tend, by reason of such chamfered or beveled surface, to cause the tangential extension 8' to move inwardly or against the rifle barrel 1.

5 It is obvious from the foregoing that the hereinbefore described automatic bayonet can be instantly released and projected to a position where it is capable of receiving considerable pressure on the end thereof
10 without being forced back into its sheath. When not in use the bayonet is carried in a convenient manner within the tube, and in a position to be instantly available.

The bayonet is returned to its sheath by
15 means of the tangential extension 8' of the sleeve 8, the same being moved away from the rifle barrel 1 until disengaged from the forward lug 14, when the bayonet is withdrawn by means of said tangential extension
20 8' being moved through the slot 2' of the tubular body 2 until the said extension 8' engages the rear lug 10 and the latch 11 engages the groove 12 of the said extension 8'.

The details of construction being so susceptible to variation, we do not wish to confine ourselves to the precise construction shown herein but rather to avail ourselves of any modification that may fall properly within the scope of our invention.

30 Having thus described our invention what we claim as new and desire to secure by Letters Patent is—

1. In an automatic bayonet; the combination with a rifle barrel of a slotted tubular
35 body rigidly secured thereto; a spring actuated bayonet having rotatably mounted thereon a sleeve with a tangential extension projecting through the slot and means for retaining the spring actuated bayonet within
40 the tubular body.

2. In an automatic bayonet; the combination with a rifle barrel of a slotted tubular body rigidly secured thereto; a spring actuated bayonet having rotatably mounted
45 thereon a sleeve with a tangential extension projecting through the slot; a lug secured to the rifle barrel adapted to retain the spring actuated bayonet within the tubular

body and means for securing the said spring actuated bayonet in a projected position. 50

3. In an automatic bayonet; the combination with a rifle barrel of a tubular body having a slot with offset extensions at each end thereof; a spring actuated bayonet having rotatably mounted thereon a sleeve with
55 a tangential extension projecting through the slot and lugs secured to the rifle barrel for engaging the tangential extension.

4. In an automatic bayonet; the combination with a rifle barrel of a tubular body
60 having a slot with offset extensions at each end thereof; a spring actuated bayonet having rotatably mounted thereon a sleeve with chamfered tangential extension projecting through the slot; and chamfered lugs secured to the rifle barrel for engaging the
65 chamfered tangential extension.

5. In an automatic bayonet; the combination with a rifle barrel of a tubular body having a slot with offset extensions at each
70 end thereof; a spring actuated bayonet having rotatably mounted thereon a spring actuated sleeve with a chamfered tangential extension projecting through the slot; and chamfered lugs secured to the rifle barrel for
75 engaging the tangential extension.

6. In an automatic bayonet; the combination with a rifle barrel of a tubular body having a slot with offset extensions at each
80 end thereof; a spring actuated bayonet having rotatably mounted thereon a spring actuated sleeve with a slotted chamfered tangential extension projecting through the slot; chamfered lugs secured to the rifle barrel and a latch pivotally secured to the rear
85 lug and adapted to engage the slot within the tangential extension.

In witness whereof we hereunto set our signatures in the presence of two subscribing witnesses.

JOHN D. PLIONES.
PETER G. COLLIAS.

Witnesses:

S. S. STEFEO,
Z. GEORGE.