

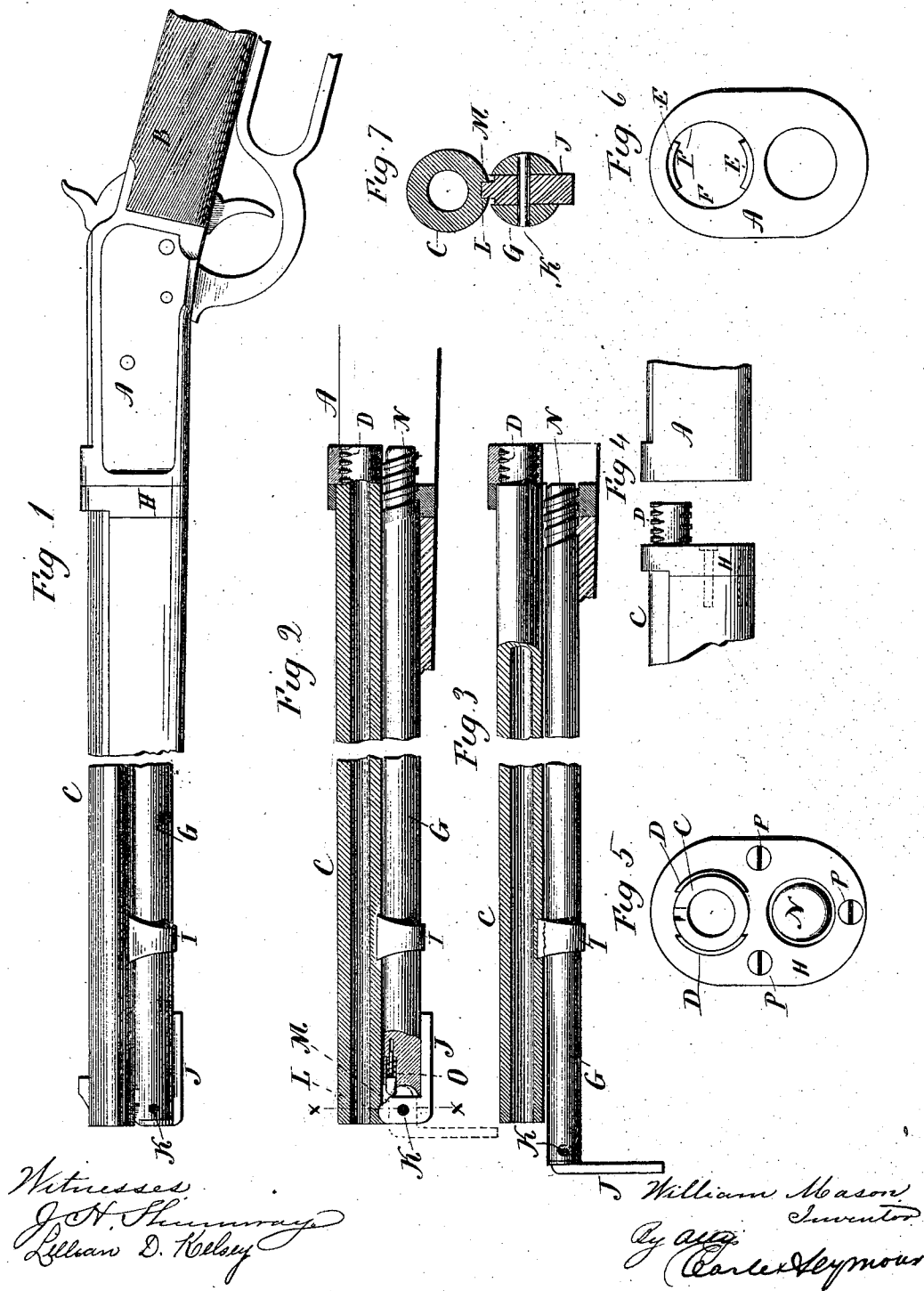
(No Model.)

W. MASON.

MEANS FOR SEPARABLY ATTACHING GUN BARRELS TO THE STOCKS.

No. 498,983.

Patented June 6, 1893.



UNITED STATES PATENT OFFICE.

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WINCHESTER REPEATING ARMS COMPANY, OF SAME PLACE.

MEANS FOR SEPARABLY ATTACHING GUN-BARRELS TO THE STOCKS.

SPECIFICATION forming part of Letters Patent No. 498,983, dated June 6, 1893.

Application filed October 31, 1892. Serial No. 450,510. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MASON, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Fire-Arms; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of the gun complete; Fig. 2, a longitudinal sectional view of the same representing the bolt as in the position of engaging the receiver; Fig. 3, the same representing the bolt as withdrawn, to disengage the two parts; Fig. 4, a side view of the joint portion of the two parts separated; Fig. 5, a rear face view of the barrel and bolt portion; Fig. 6, a front face view of the receiver; Fig. 7, a transverse section cutting on line $x-x$ of Fig. 2.

This invention relates to an improvement in that class of fire-arms in which the barrel is made readily detachable from the receiver, so that the barrel may be conveniently detached for the purpose of packing or transportation, the object of the invention being a simple construction, whereby the barrel may be readily detached, and firmly secured when in connection with the receiver, and the invention consists in the construction as hereinafter described and particularly recited in the claims.

A, represents the receiver, to which the stock B, is attached in the usual manner.

C, represents the barrel. The barrel is connected to the forward end of the receiver by any suitable joint which will permit the ready detachment or re-engagement of the barrel; as here represented this engagement is produced by constructing the rear end of the barrel C, with sectional screw-threads D D, which extend partially around that rear end portion of the barrel, and so as to leave spaces between the respective sections of screw-threads. The opening into the receiver A, is constructed with sectional screw-threads E E, which correspond in length to the clear spaces between the sectional threads D D, on the barrel, and so as to leave spaces F F, between

the sectional threads in the receiver, corresponding in length substantially to the sections of threads on the end of the barrel, the position of the sections of threads on the two parts corresponding with each other when the barrel is in the proper relation to the receiver. In introducing the barrel to the receiver, it is turned partially around from its normal position, so as to bring the sections D D of the threads of the barrel into line with the spaces F F, in the receiver, then the barrel is inserted into its place, and a partial turn brings the sectional threads D, of the barrel into engagement with the sectional threads E, of the receiver, and so as to interlock firmly therewith. The sectional screw-threads thus described are a common and well known interlocking joint for the engagement of two parts in mechanical structures, and for which other equally well known joints may be substituted.

G, represents the magazine-tube, which is arranged under the barrel, in the usual manner, and extends through a band H at the rear, this band being secured to or made a part of the barrel, and so as to form a support for that end of the tube. At that end the tube is screw-threaded, preferably with a quick thread, as represented, and the band is correspondingly screw-threaded, so that the tube may be rotated to project the end from the band, as represented in Fig. 2, or draw it into the band, as seen in Fig. 3. Near the outer end of the barrel the tube is supported in a band I, but so as to permit its rotation. In the end of the tube a lever J, is hung, upon a pivot K, and so as to swing against the surface of the tube, as seen in Fig. 2, or be turned therefrom, as represented in broken lines in the same figure, and as also seen in Fig. 3. The hub of the lever J, is constructed with a nose L, which, when the lever is turned against the tube, as seen in Fig. 2, will enter a corresponding notch M, in the barrel, as seen in Figs. 2 and 7, but when the lever is turned away, as represented in broken lines Fig. 2, the nose of the lever will be withdrawn from engagement with the barrel, and so as to leave the tube free. In the disengaged position the lever serves as a handle by which the tube may be conveniently turned, and

such turning will, because of the screw-thread on the tube, impart to it a longitudinal movement, according to the direction in which the tube is turned. When the barrel is set in place in the receiver, as first described, and the threads interlocked by the rotation of the barrel, such rotation will bring the tube G, into line with a corresponding opening N, into the forward end of the receiver, as seen in Fig. 2, and the projection of the tube into the receiver, locks the parts together so as to prevent the rotation of the barrel, and when the parts are so locked, the lever J, is turned to interlock the tube with the barrel at the forward end, so as to prevent accidental rotation of the tube, and when the parts are thus engaged and interlocked, the barrel is as firmly held to the receiver as if it were screwed therein, in the usual manner. When it is desired to separate the barrel from the receiver, the lever J, is turned to disengage the tube from the barrel, and then the tube is rotated to withdraw the tube from the receiver, as seen in Fig. 3, and when so withdrawn, a partial rotation of the barrel will bring the sectional threads of the barrel into the spaces between the threads of the receiver, and then the barrel may be readily withdrawn, and as seen in Fig. 4, to separate the two parts. A spring-stop O, is arranged in the tube, to yieldingly engage the lever J, in either of its two positions, so as to prevent accidental movement of the lever.

To provide against wear of the joint between the barrel and the receiver which might occur by frequent separation and attachment of the parts, set-screws P, more or less in number, are inserted into the face of the band, as represented in Figs. 4 and 5, the heads of the screws being normally flush with the face of the part into which they are introduced. Should wear occur so as to loosen the joint, the screws are withdrawn so far as to bring the heads on the one part to bear against the face of the other part when the two parts are in their proper relation to each other.

The tube G, which serves as the bolt to lock the two parts together, may be the magazine-tube of a magazine gun, or it may be a rod or tube applied for the sole purpose of the interlocking of the two parts, the invention is therefore applicable alike both to magazine and single loaders, and while to make the tube rotatable and screw-threaded so that its longitudinal movement will be produced by the said screw-thread is preferred, it may be adapted to slide longitudinally without such screw-thread, the locking engagement between the barrel and the tube being sufficient to retain the tube in its engaged position. While therefore I have used the term "tube" in describ-

ing the invention, it is a longitudinally movable bolt so far as the engagement of the two parts is concerned, and it is to be understood that such longitudinally moving bolt is not to be limited to the tube of a magazine gun, or to the rotation of the tube or bolt.

The adjusting-screws are represented as on the rear face of the barrel portion, but it will be understood that they may be arranged in the front face of the receiver with the same result, and it will also be understood that these adjusting-screws are alike applicable to any locking device by which the barrel is secured to prevent its rotation, the set-screws in any case serving as a desirable means of take-up between the faces of the two parts.

The interlocking device which is illustrated as between the bolt and barrel, is one well adapted for the purpose, but it will be understood that any suitable locking device may be used which will engage the bolt with the barrel when the parts are set together and so as to prevent the longitudinal or rotative movement of the bolt.

I do not broadly claim in this application the use of devices located between the abutting faces of the barrel and receiver to take up the wear thereof, but only the particular construction shown and described.

I claim—

1. In a gun having the barrel detachable from the receiver by a partial rotation of the barrel, the combination therewith of a bolt arranged below the barrel and supported by it, but free for longitudinal movement, the receiver constructed with a recess in its forward end corresponding to the rear end of the said bolt, and into which said bolt is adapted to be projected and withdrawn, with means for interlocking the said bolt with the barrel when the bolt is engaged with the receiver, substantially as described.

2. In a gun having the barrel detachable from the receiver by a partial rotation of the barrel, the combination therewith of a bolt arranged below the barrel, and supported by it, the bolt adapted for both longitudinal and rotative movement, the forward end of the receiver constructed with a recess into which the rear end of the bolt is adapted to project, the bolt screw-threaded through its support, and a device substantially such as described for interlocking the bolt with the barrel, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM MASON.

Witnesses:

DANIEL H. VEADER,
A. W. EARLE.