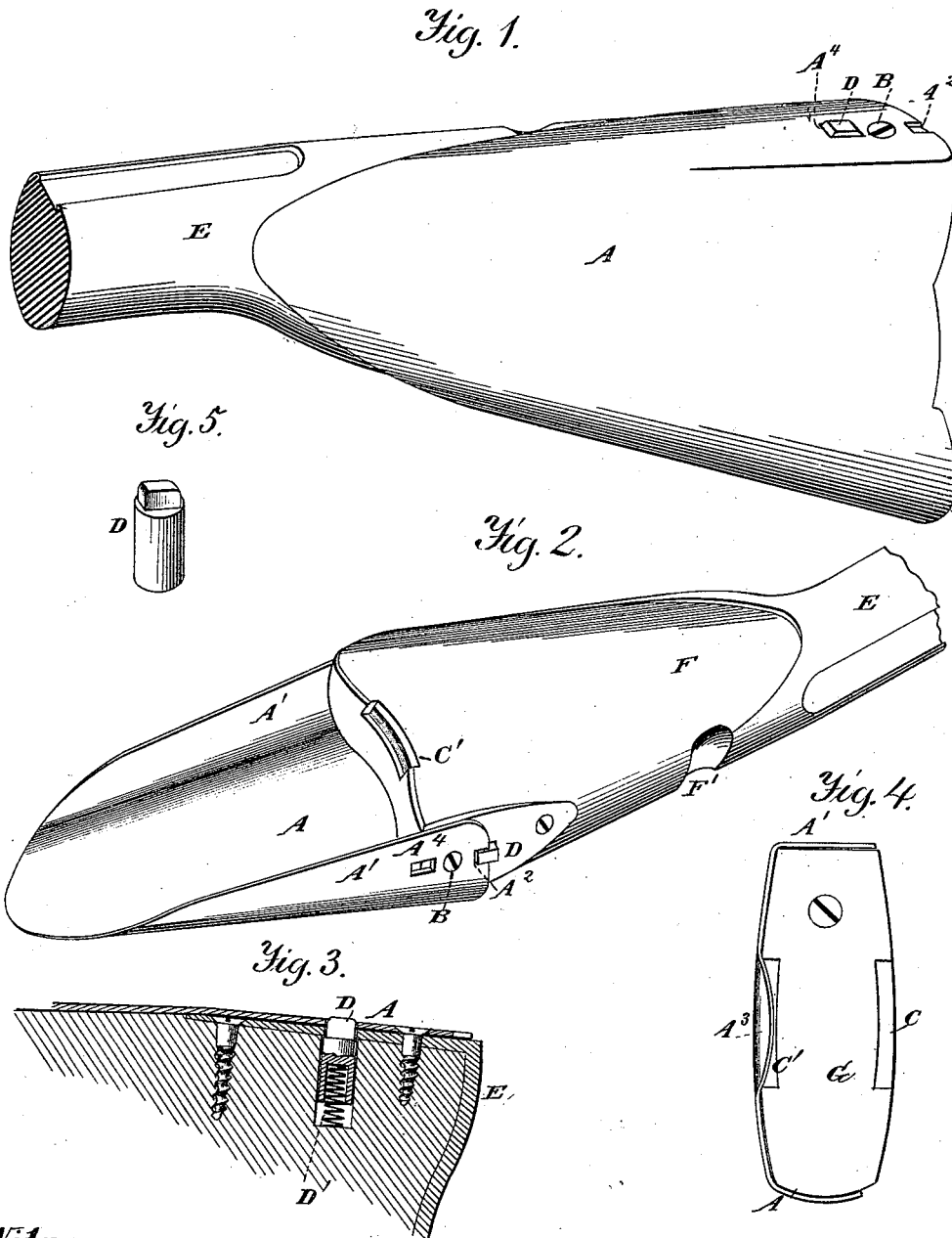


J. P. WHITE.  
Spade Attachment for Fire-Arms.

No. 210,282.

Patented Nov. 26, 1878.



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# UNITED STATES PATENT OFFICE.

JOSEPH P. WHITE, OF SAVANNAH, GEORGIA.

## IMPROVEMENT IN SPADE ATTACHMENTS FOR FIRE-ARMS.

Specification forming part of Letters Patent No. **210,282**, dated November 26, 1878; application filed May 20, 1878.

*To all whom it may concern:*

Be it known that I, JOSEPH P. WHITE, of Savannah, in the county of Chatham and State of Georgia, have invented certain new and useful Improvements in Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and letters of reference marked thereon, which form a part of this specification.

Figure 1 is an elevation of a portion of the stock of a musket, showing a spade pivoted thereto, and closed into a recess formed in the stock, one of the pivotal points of the spade being shown, and also the bolt which locks it in its open and closed position. Fig. 2 is a perspective view of the stock and spade, the latter being shown in position for use, or open, the locking-bolt being in a recess in the end of the spade for locking it in its said position. Fig. 3 is a sectional elevation of a portion of the stock, showing a portion of the breech-plate, the spade, and the locking-bolt, and the manner of attaching it to the stock; and Fig. 4 is an elevation of the rear end of the stock, the breech-plate being shown with recesses formed therein for the reception of a projection formed upon the rear end of the spade, for the purpose of giving additional support thereto when in position for use.

Corresponding letters denote like parts in the several figures.

This invention relates to rifles, muskets, and other kinds of fire-arms which are provided with stocks, which, when in use, rest against the shoulder of the person using them, the object being to provide such arms with a means for enabling the user to dig a ditch or throw up an intrenchment for the protection of his person, and for use in any case where a spade or shovel would otherwise be required; and it consists, first, in a spade made of sheet-steel or other suitable metal, having its edges turned in such a manner as to form pivotal points for attaching it to the stock upon its upper and under surfaces, and at the same time to cause it to form a proper receptacle for the earth to be removed, the outer end of said spade being rounded or pointed, for the purpose of faci-

tating its entrance into the substance to be removed; and it consists, further, in pivoting to the edges of the stocks of fire-arms a spade or scoop, in such a manner that, when closed, it shall enter a recess formed in the stock, but when open shall have its greatest width in line with the greatest diameter of said stock, and shall be supported in such position by a bolt entering a recess in its rear edge, and by a projection formed thereon, which enters a recess formed in the breech-plate; and it further consists in a recessed breech-plate, for receiving a projection formed upon the spade, for aiding in holding the same in position when in use; and it consists, further, in certain combinations and arrangements of the parts, as will be more fully explained hereinafter.

In constructing fire-arms with my improvements attached, and in attaching them to arms already constructed, I form a spade or scoop, A, of steel or other suitable metal, and of substantially the form shown in Figs 1 and 2, or so that it shall form a receptacle for the substance to be moved by it, and so that its upper and under edges shall rest upon the edge of the stock, and thus form the pivotal points upon which it swings from its closed to its opened position. In order that this implement may enter the earth with facility, and with the least possible amount of resistance, its outer end is rounded or pointed, by which means the strain upon its fastening-points is very much lessened, and it can be used in much harder earth than would otherwise be practicable. This spade is secured to the stock by means of bolts or screws B, which pass through its flanges and into said stock; or it may be by a bolt passing through both flanges and through the stock. These bolts or screws serve to secure the spade to the stock; but in order that the strain put upon these points when in use may not be too great, there is formed in the rear end of one or both of the flanges A<sup>1</sup> of the spade a recess or notch, A<sup>2</sup>, so that when open, or in position for use, a spring-bolt, soon to be described, enters therein, and not only receives a portion of the strain which would otherwise come upon the bolts B B, but also prevents the spade from being closed unintentionally. A further and very important support consists in a projection, A<sup>3</sup>,

formed on the rear edge of the spade, which, when the same is in use, enters a recess, C, formed in the breech-plate of the arm, and still further relieves the pivotal points from strain.

The spring or locking bolt referred to consists of a round piece of metal, having a recess formed in its inner end for the reception of a spiral spring, D', said bolt having its outer end so shaped as to cause it to enter the recess A<sup>2</sup> in the spade when the same is open, and also another recess, A<sup>4</sup>, when it is closed, the latter preventing it from being opened by accident.

This locking device may be constructed as described, and arranged as shown in Fig. 3; or it may be of any other approved form. The stock E, to which these devices are applied, may be of the form shown in the drawing, or of any other form that will admit of having the spade and its fastenings applied to it. As shown, it has a recess, F, formed in it, into which the spade or scoop passes when in its closed position; but, owing to the peculiar form of the same, it may be allowed to rest upon the smooth face of the stock without disfiguring it or causing inconvenience in its use as a fire-arm.

To facilitate the opening of the spade or scoop there is formed in the stock a recess, F', into which the finger of the operator can be passed, and thus the pointed end be raised, when, by pressing in the locking-bolt D, it can be turned into the proper position for use.

The stock is provided with a breech-plate, G, which is secured thereto by screws, and has formed in it upon its edges recesses C and C', the one lettered C receiving the projection A<sup>3</sup> of the spade when in position for use, and C' receiving it when closed.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A spade or scoop pivoted to the upper and under edges of the stock of a fire-arm, substantially in the manner described, whereby when it is opened for use its greatest width will be in line with the greatest diameter of the stock, as set forth.

2. The breech-plate G, having recesses C C formed in its edges for the reception of projections upon the spade, in combination with the stock of the arm and the swinging spade.

3. The spade or scoop A, provided with projections A<sup>3</sup>, for entering recesses in the breech-plate, and thus aiding in supporting the spade when in position for use, substantially as set forth.

4. The combination of the recessed spade or scoop, the locking-bolt D, and the stock E, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOSEPH P. WHITE.

Witnesses:

J. J. ABRAMS,  
ALEX. ABRAMS.