(No Model.)

# G. E. ALBEE.

## INTRENCHING TOOL.

No. 515,568. Patented Feb. 27, 1894.

Fig. 3

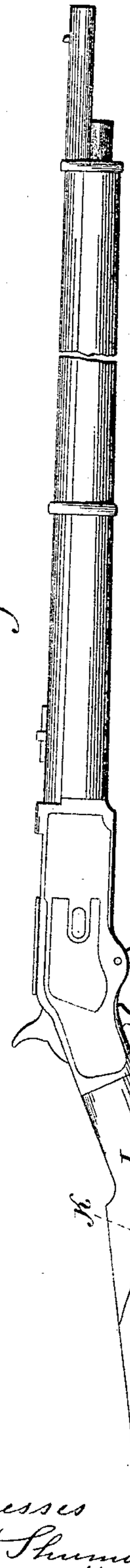



Fig. 4.

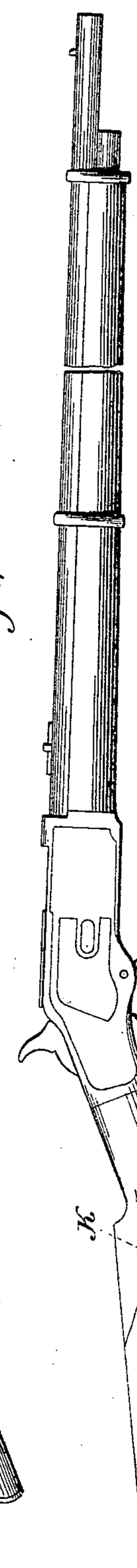



Fig. 5

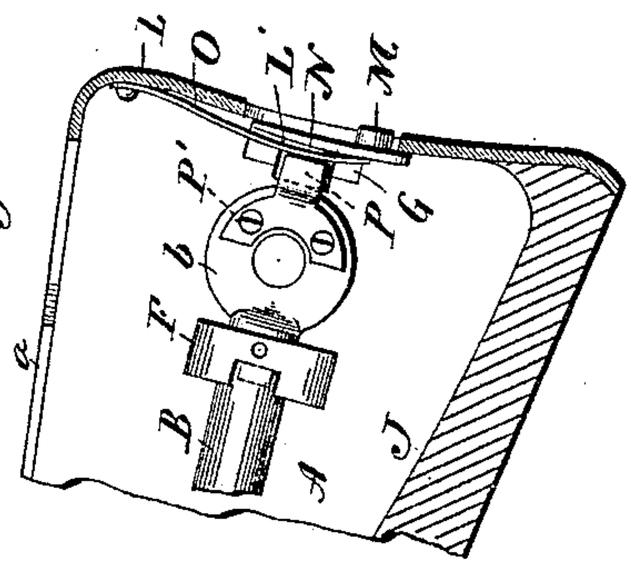



Fig. 6


Fig. 1

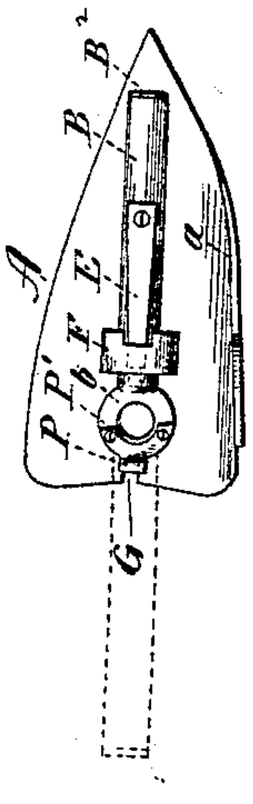
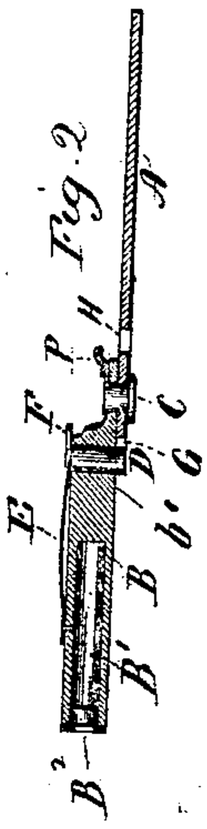



Fig. 2




Witnesses
J. H. Shumway.
Lillian D. Kelsey

George E. Albee,
Inventor
By Atty
Earle Seymour

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

GEORGE E. ALBEE, OF NEW HAVEN, CONNECTICUT.

## INTRENCHING-TOOL.

SPECIFICATION forming part of Letters Patent No. 515,568, dated February 27, 1894.

Application filed April 21, 1893. Serial No. 471,263. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE E. ALBEE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Intrenching-Tools; 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 view in inside elevation of an intrenching-tool constructed in accordance with my invention, its handle being shown in its closed position by full lines, and in its open position by broken lines; Fig. 2, a view of the device in central longitudinal section with its handle shown in its open position; Fig. 3, a view in side elevation of a gun having my improved tool applied to its stock; Fig. 4, a similar view showing the gun with the tool removed from it; Fig. 5, a detail view partly in inside elevation and partly in section, of the gun-stock looking toward the inner face of the intrenching-tool as it appears from the opposite side of the stock from the side thereof into which it is inserted; Fig. 6, a top view of the rear portion of the gun stock showing the overlapping portion of the blade of the tool.

My invention relates to an improvement in intrenching-tools, the object being to produce a simple, convenient and effective article, particularly adapted to be combined with the stock of a gun.

With these ends in view, my invention consists in a folding intrenching-tool having a blade, a handle pivoted thereto so as to swing in the plane thereof, and locking devices for locking the handle in its open and closed positions.

My invention further consists in the combination of a folding intrenching-tool such as described, with a gun, the stock whereof has a suitable recess formed in it to receive the said tool when the same is in its folded adjustment.

My invention further consists in certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

My improved folding intrenching-tool consists, as herein shown, of a blade A, having the general outline of the blade of a trowel, being pointed at one end and blunt or square at the other. Preferably this blade is formed from sheet metal. A handle constructed at its inner end with a thin, circular, centrally perforated head *b*, is pivoted by means of a pivot C, which passes through the said head, to the inner face of the butt end of the blade, and swings in the plane thereof. When it is desired to use the tool, the handle is swung around so that it projects from the butt-end of the blade, in line therewith. When the tool is not in use, the handle is reversed in position, so as to extend toward the point of the blade within which it is then virtually located. For the purpose of fixing the handle in its open and in its closed positions, I provide it with locking devices, comprising, as shown, a pin D, which is located in a transverse opening *b'*, formed in its inner end, a flat spring E, fixed at its outer end to the handle and carrying the said pin at its inner end, and a finger-piece F, attached to the outer end of the pin and extending beyond the edges of the spring, so as to be readily grasped by the fingers for lifting the pin against the tension of the spring, which is interposed between the said finger-piece and the pin. To receive the inner end of the pin, the blade is provided with a locking notch G, formed in the center of its edge in line with the pivot C, and with a locking perforation H, located in the same line, but on the opposite side of the said pivot. When the handle B, is swung around into its open position, the pin enters the notch G, and locks the handle in that position, while, on the other hand, when the handle is swung into its retired position, the pin enters the locking perforation H, and locks the handle firmly in that position. Preferably, and as herein shown, the handle is bored out to form a chamber B', which is closed by a removable cap $B^2$, the said chamber being designed for the reception of needles, matches, or any other small articles for which it will afford a convenient receptacle. An intrenching-tool thus constructed will be found very efficient in use, and also convenient to carry, for when its handle is retired, the tool requires much less space.

By preference, though not necessarily, I

combine my improved tool with the stock I, of any ordinary gun. For this purpose one side of the stock is constructed with a shallow recess J, conforming in its outline to the outline of the blade of the tool, and with a deep groove J′, located in the center of, and extending parallel with the said recess, and designed to receive the handle of the tool. As herein shown, the recess J, receiving the blade of the tool, is located so that one edge thereof will lap over the upper edge of the stock. One edge of the blade is thereto bent at its edge, as at *a* in Figs. 1 and 6.

For holding the tool in place in the stock, I provide the same with a small retaining-plate K, applied thereto at the forward end of the recess J, and adapted to have the point of the blade slipped under it. The heel-plate L of the stock I construct with an elongated slot L′, which receives a button M, projecting outward from one end of a bolt N, which slides upon the inner face of the said plate, being controlled in its sliding movement by a spring O. The said bolt N, coacts with a locking finger P, offsetting from the extreme rear end of the handle, in securing the rear end of the folded tool in place in the stock. As herein shown, the locking-finger P is formed as a part of a segmental plate P′, which is fastened to the circular head *b* formed at the inner end of the handle.

To apply the folded tool to the stock of the gun, the pointed end of its blade is first inserted under the retaining plate K, which is attached to the stock, as stated. Then the button M, is engaged and moved for the purpose of shooting the bolt N, under the locking-finger P, which completes the attachment of the tool to the stock of the gun, the butt end of the blade setting down flush with the edge of the heel-plate against which it abuts. To remove the tool it is only necessary to shoot the bolt in the opposite direction, so that it will clear the locking-finger P, and permit the tool to be swung away from the stock, and then withdrawn from under the retaining plate applied thereto.

When the tool is applied to the stock of a gun, as described, it is no more in the way, and no more interferes with the use of the gun than if it were not present, for it does not appreciably increase the weight of the gun, if at all, and because it conforms, as aforesaid, to the usual contour of the stock thereof.

It is apparent that the locking devices which I have shown and described for locking the handle of the tool in its open and closed positions, and for locking the tool to the gun, might be replaced by other locking devices answering the same purposes, and that the tool and the gun might be similarly modified in other particulars, and I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. A folding intrenching-tool having a blade, a handle pivoted to the inner face of the blade to swing in the plane thereof, and locking devices for locking the handle in its open and in its closed positions, substantially as described.

2. A folding intrenching-tool having a blade, a handle pivoted to the inner face of the said blade to swing in the plane thereof, and locking devices carried by the handle, and comprising a locking-pin, a spring to which the said pin is attached, and a finger-piece, the said pin being adapted to enter openings provided to receive it in the blade on opposite sides of the pivot on which the handle turns, substantially as described.

3. A folding intrenching-tool having a blade, a handle pivoted to the inner face of the said blade to swing in the plane thereof, and locking devices for locking the handle in its open, and in its closed positions, the said handle being made hollow and furnished with a removable cap, substantially as described.

4. A folding intrenching tool having a blade shaped to conform to the contour of a portion of a gun-stock, a handle pivoted to the said blade, and locking devices for locking the handle in its open and in its closed positions, and the said tool being constructed and adapted to be inserted and secured in a recess formed in a gun-stock, substantially as described.

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

GEORGE E. ALBEE.

Witnesses:
DANIEL H. VEADER,
WM. S. BALDWIN.