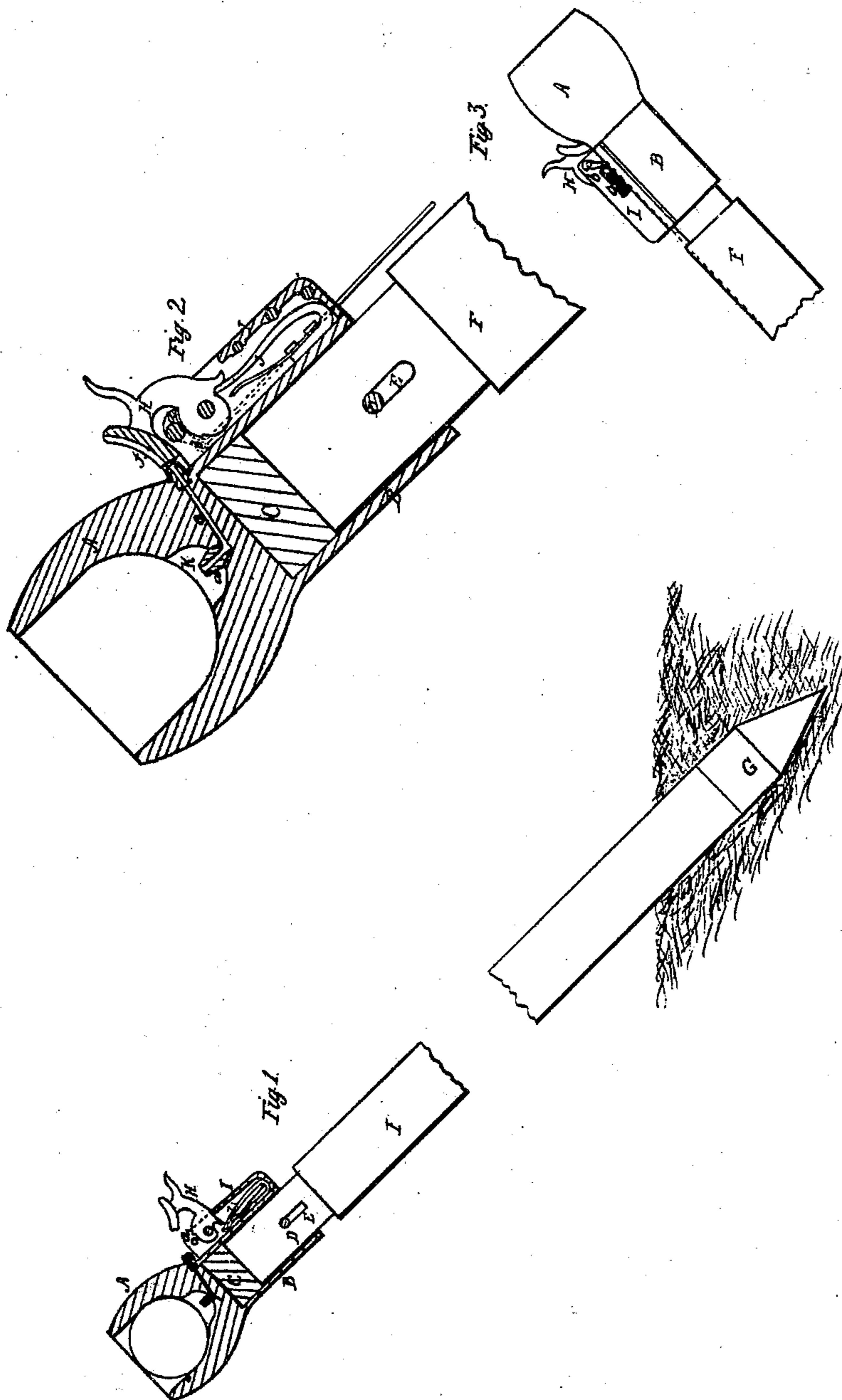


W. F. GOODWIN.
Mounting Hand Mortars.

No. 46,101.

Patented Jan 31, 1865.



Witnesses:

M. M. Livingston
George R. Dutton

Inventor.

Wm. F. Goodwin

UNITED STATES PATENT OFFICE.

WM. F. GOODWIN, OF NEW YORK, N. Y.

IMPROVEMENT IN MOUNTING HAND-MORTARS.

Specification forming part of Letters Patent No. 46,101, dated January 31, 1865.

To all whom it may concern:

Be it known that I, WILLIAM F. GOODWIN, of the city, county, and State of New York, have invented a new and useful Improvement in Mortars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal axial section of a mortar constructed according to my invention. Fig. 2 is a like section on a larger scale, a part of the stake upon which the mortar is mounted being broken away. Fig. 3 is a side view from the opposite side to that presented in the other figures.

Similar letters of reference indicate like parts.

This invention consists, among other things, in mounting a mortar upon one end of a stake of wood or other suitable material, the other end of which is made pointed to enable one to insert it in the ground.

A is the mortar, formed with a powder-chamber, K, in its bottom. A cone, *d*, rising from the bottom of the powder-chamber, communicates through a channel, *e*, with the nipple.

B is a stout sleeve extending from the base of the mortar, to enable it to be attached to a stake, F, as shown in the drawings.

C is an elastic cushion, formed of rubber or equivalent material, placed at the bottom of the sleeve, so as to bear directly against the end of the stake. A slot, E, is made through the stake in that part covered by the sleeve, and it receives a pin, D, which passes through and is secured in the sides of the sleeve, so that when the mortar is fired it may slide longitudinally upon the stake, and yet be prevented from becoming displaced or being torn from the stake. The opposite end of the stake is shod with a pointed metallic ferrule or shoe, G, to enable it to be placed in the ground with facility.

H represents a lock, whose hammer-piece *f* is in outline the arc of a circle, and has a groove formed on its front side, which affords a path or channel for the passage upward of the gases which arise from the explosion of the cap, so that the lock shall not become injured

thereby. The trigger *b* and sere *a* are operated by means of a cord or chain, (shown in red,) and the hammer is thrown down by the usual spring, J, inclosed in the lock-frame I, fast on one side of the sleeve B. A small hollow cylinder, O, closed at its rear end, is fastened on the right-hand side of the lock-frame, as seen in Fig. 3. A spiral spring in its bottom throws a small bolt, *c*, outward against the end of the trigger *b*, so as to restore the sere *a* to its place against the tumbler after every pull of the chain on the trigger, the latter resting against the end of the bolt when the hammer is cocked, as shown in that figure. The bolt will be retained in the cylinder between the spring and trigger by their mutual pressure against it.

The mortar may be made of bronze or any other suitable material. The stake or other support upon which it is mounted is to be portable, so that the mortar can be easily transported and fixed in the ground, or otherwise temporarily but firmly secured in a suitable position and inclination for the proper and efficient use of the weapon after the usual manner of using mortars. The axis of the stake upon which the mortar is mounted is coincident with that of the mortar; or, if not made coincident, they are always to be in parallel planes.

I am aware of the Letters Patent No. 43,881, granted August 16, 1864, to Ralph Graham, of Brooklyn, Kings county, New York, for a hand fire-arm adapted to projecting grenades or small bombs, and I do not claim the invention therein shown; but

What I do claim as new and of my invention, and for which I desire Letters Patent, is—

1. Constructing a mortar with a hollow sleeve projecting from its base, instead of trunnions or cheeks, substantially as above described, for the purpose of receiving the elastic cushion, or any equivalent spring, and the end of a stake, as above set forth.

2. The combination of the slot E and pin D with the aforesaid mortar A, sleeve B, and spring C, as and for the purposes specified.

WM. F. GOODWIN.

Witnesses:

M. M. LIVINGSTON,
THEO. TUSCH.