No. 760,820. PATENTED MAY 24, 1904.

G. SUPPNICK.

BOMB.

APPLICATION FILED NOV. 18, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

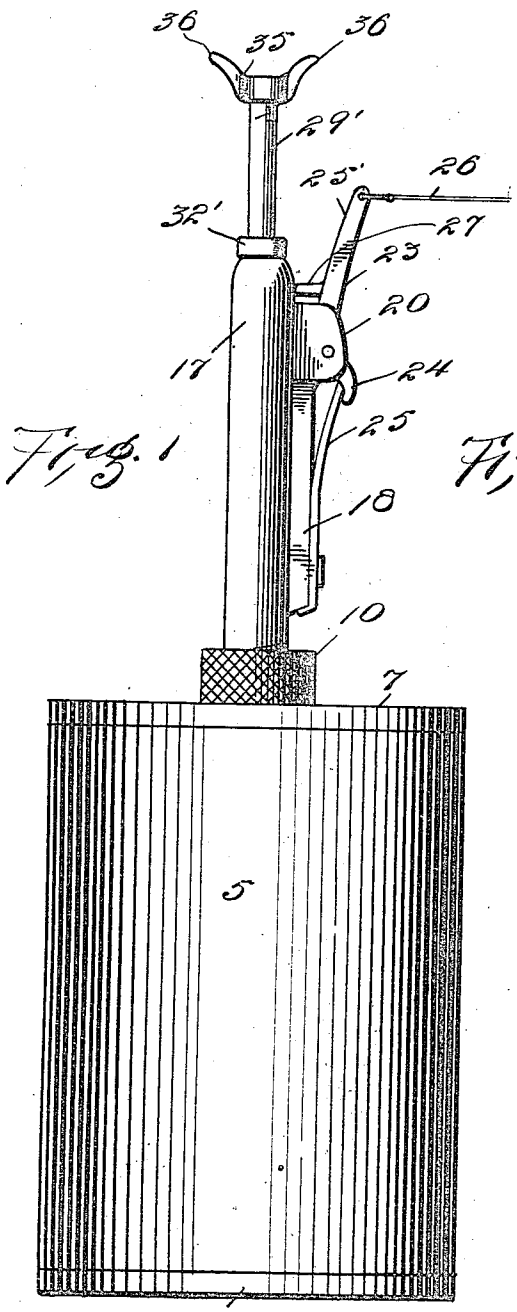


Fig. 1

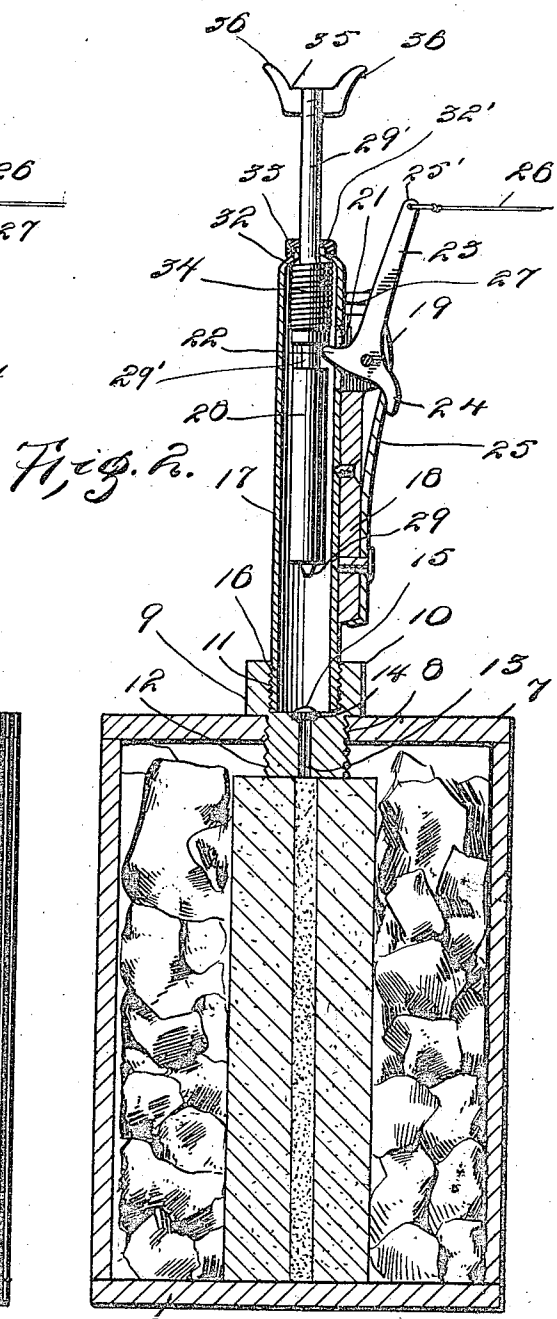


Fig. 2.

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NO MODEL. 2 SHEETS—SHEET 2

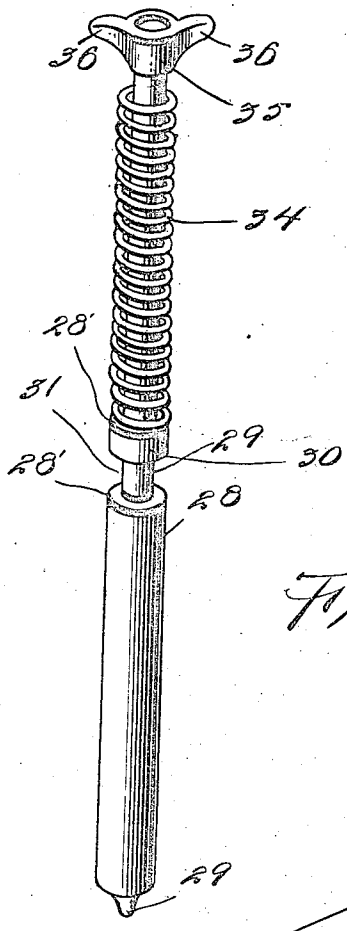


Fig. 3.

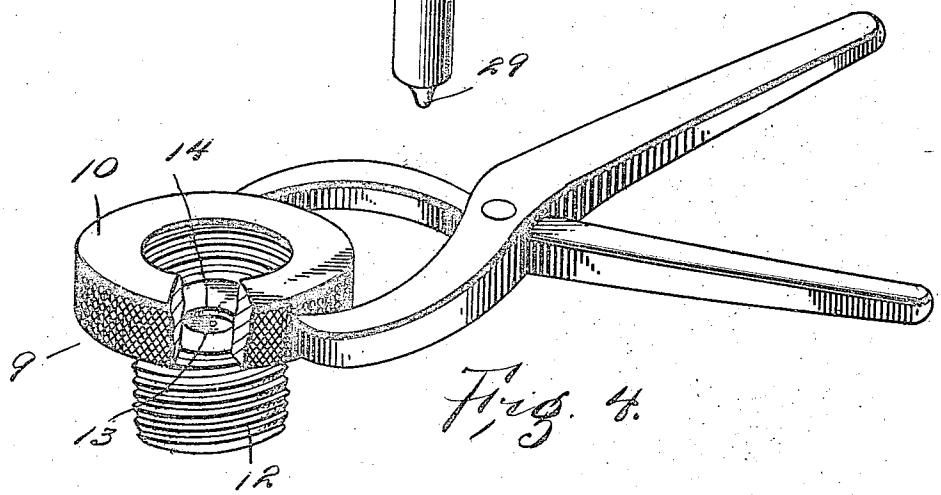


Fig. 4.

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No. 760,820. Patented May 24, 1904.

UNITED STATES PATENT OFFICE.

GOTTFRIED SUPPNICK, OF NEW SALEM, NORTH DAKOTA.

BOMB.

SPECIFICATION forming part of Letters Patent No. 760,820, dated May 24, 1904.

Application filed November 18, 1903. Serial No. 181,691. (No model.)

To all whom it may concern:

Be it known that I, GOTTFRIED SUPPNICK, a citizen of the United States, residing at New Salem, in the county of Morton, State of North Dakota, have invented certain new and useful Improvements in Bombs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to mines, and more particularly to that class which are exploded by means of a lanyard, and has for its object to provide a device of this nature which may be embedded in the earth, placed under water, or otherwise concealed, and which may be exploded by the victim or by an operator, as desired.

A further object of the invention is to provide a mechanism whereby the hammer which explodes the cap will receive an increase of tension just previous to its release.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the complete device, showing the lanyard attached to the trigger. Fig. 2 is a longitudinal section of Fig. 1. Fig. 3 is a view of the exploding mechanism when removed from the casing. Fig. 4 is a view, partially in section, of the socket detached from the barrel and casing with the recapping-pincers in position.

Referring now to the drawings, the present invention comprises a cylindrical casing 5, of a cast-iron or other frangible material, having caps 6 and 7 upon the ends thereof and within which is disposed a charge of powder and a plurality of projectiles, such as buckshot, scrap-iron, slugs, or other suitable matter. The cap 7 has a central perforation 8, which is interiorly threaded, as shown. A metal socket 9 (shown in Fig. 4 of the drawings) is provided, and consists of a disk 10, having an interiorly-threaded central recess 11 therein and having projecting from its lower face a threaded stem 12, the circumference of which is concentric with the periphery of the recess 11. The edge of the disk 10 is roughened, as shown, to present a finger-grip, by means of which the stem 12 may be tightly screwed into the perforation 8 of the cap 7. The stem 12 has a central passage 13 therethrough which connects with the recess 11 and which has a recess 14 at its inner end for the reception of a percussion-cap 15, as shown.

The recess 11 receives the threaded end 16 of a barrel 17. Upon the outer face of the barrel 17 there is mounted a block 18, which is bifurcated at one of its ends and which has outwardly-projecting fingers 19 and 20 at either side of the bifurcation. Between the fingers 19 and 20 the barrel 17 is perforated, as shown at 21. This perforation receives the nose 22 of a trigger 23, which is pivoted between the spaced fingers 19 and 20 and which has a rearwardly-projecting lug 24, which bears at times against a spring 25, secured to the block 18. The trigger 23 has a stem 25′, to the end of which a lanyard 26 is attached.

Within the barrel 17 there is a plunger 28 carrying a firing-pin 29, which is adapted to explode the cap 15, as will be presently described. The plunger 28 is reduced, as shown at 29′, and resulting in shoulders 28′, and has an annular flange 30 encircling this reduced portion and spaced slightly from the shoulders 28′, resulting in an annular rabbet 31.

The unthreaded end of the barrel 17 is reduced, as shown at 32, to form a shoulder 33, against which bears a helical spring 34, which encircles the reduced portion 29′ of the plunger and bears with its remaining end against the flange 30. The reduced portion 29′ of the plunger 28 projects beyond the end 32 of the barrel 17 and is threaded to receive a thumb-nut 35, which has laterally-directed finger-grips 36 projecting therefrom.

In operation the socket 9 is detached from the casing 5 and barrel 17 and a cap is inserted in the recess 14 in the manner and with the implement shown in Fig. 4 of the drawings or in any desired way, and the parts are then reassembled. The plunger 28 is then drawn upwardly in the barrel by means of the finger-grips 36 until the flange 30 passes the perforation 21, when it will be engaged by the nose 22 of the trigger, and will thus be prevented from return under ten-

sion of the spring 34. Strain upon the lanyard at this time will cause the trigger to move upon its pivot, which will move the nose 22 in the direction of the reduced end of the barrel and with it the plunger 28, thus increasing the tension upon the spring 34. When the nose 22 has so far moved in its arc that it is disengaged from the flange 30, the plunger 28 will be impelled forward by the spring 34 and the firing-pin 29 will be brought into forcible contact with the cap 15 to explode the latter and ignite the charge of powder within the casing 5. The explosion of the powder will burst the casing and scatter its contents in all directions. When the lanyard is released, the trigger will be returned to its position by the tension of the spring 25 against the lug 24.

The motion of the stem 25′ of the trigger is limited in the direction of the barrel by a pin 27, and the reduced end 32 of the barrel is provided with a perforated rubber cap 32′, which prevents the thumb-nut 35 from striking against the end of barrel.

As stated in the first paragraph of the specification, this device may be concealed in any desired manner, and the lanyard may be arranged so that it will be unconsciously caught and pulled by the victim or victims, or it may be pulled at the desired time by an operator stationed at a safe distance.

The device is designed for mining the approach to cities, forts, magazines, or other important places during the time of war, and they may be constructed of any desired size and of any suitable material to obtain the best results without departing from the spirit of the invention.

What is claimed is—

1. A device of the class described comprising a frangible casing containing an explosive charge, a socket in one end of the casing and having a passage connecting with the interior of the casing, a percussion-cap disposed within the passage to ignite the charge when the cap is exploded, a barrel disposed within the socket, a plunger slidably disposed within the barrel and adapted for engagement of the percussion-cap, means for holding the plunger out of engagement with the cap and means for impelling the plunger forcibly against the cap to explode the latter when the holding means is disengaged.

2. A device of the class described comprising a frangible casing containing an explosive charge, a barrel connected to one end of the casing, said casing having a passage therethrough connecting with the interior of the barrel, a percussion-cap disposed within the passage to ignite the charge when exploded, the barrel having a perforation through its side, a trigger pivotally disposed within the perforation and adapted to move in an arc away from the socket, a plunger slidably disposed within the barrel and adapted to strike the percussion-cap, and having a flange projecting therefrom, a spring disposed upon the flange and adapted to bear at one end against the flange and at the other against the end of the barrel, said flange being also adapted for engagement of the trigger to hold the plunger against action of the spring, means for moving the trigger upon its pivot to first further move the flange against action of the spring and then to disengage the trigger from the flange.

3. A device of the class described comprising a frangible casing containing an explosive charge, a removable socket in one end of the casing, said socket having a passage therethrough connecting with the explosive charge, and having a percussion-cap disposed within the passage, a barrel removably disposed within the socket, a plunger disposed within the barrel and adapted to strike the cap to explode the latter, said barrel having a perforation through its side, a trigger within the perforation and adapted to move in an arc away from the socket, a plunger for engagement with the trigger, means for moving the trigger upon its pivot, to move the plunger away from the socket and then disengage the trigger from the projection and means for forcibly impelling the plunger against the cap when the trigger is disengaged.

In testimony whereof I affix my signature in the presence of two witnesses.

GOTTFRIED SUPPNICK.

Witnesses:
ALBERT SUPPNICK,
R. W. LEACH.