

LAWSON & BERNEY.

Disabling Ordnance.

No. 37,870.

Patented Mar. 10, 1863.

Fig. 1.

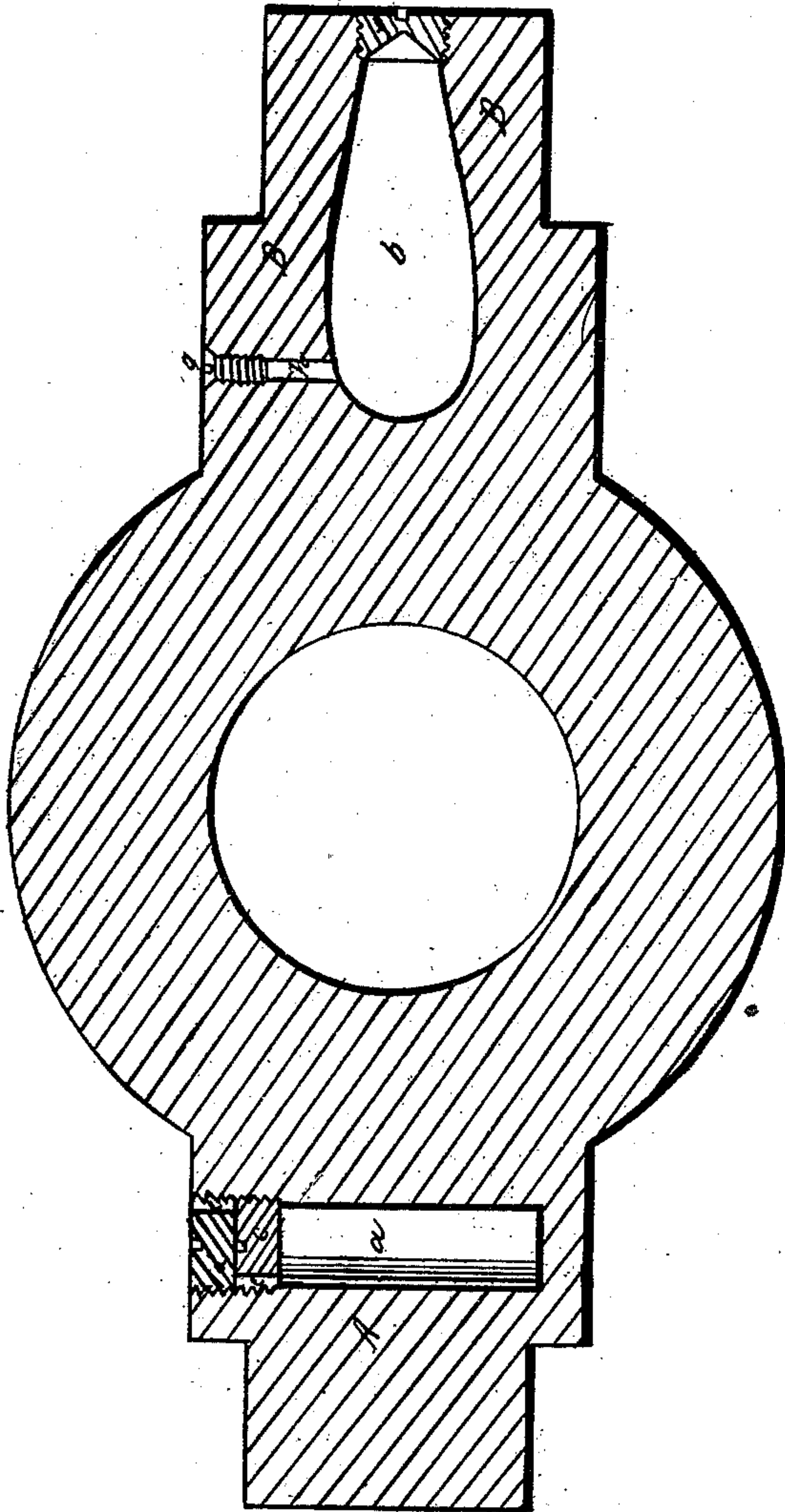


Fig. 2.



Witnesses.

J. C. Coombs
G. W. Reed

Inventor.

P. B. Lawson
A. F. Berney
per Munn & Co
Attorneys

UNITED STATES PATENT OFFICE.

PETER B. LAWSON, OF COLD SPRING, NEW YORK, AND ALFRED BERNEY,
OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN CHAMBERED TRUNNIONS FOR DISABLING ORDNANCE.

Specification forming part of Letters Patent No. 37,870, dated March 10, 1863.

To all whom it may concern:

Be it known that we, PETER B. LAWSON, of Cold Spring, in the county of Putnam and State of New York, and ALFRED BERNEY, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Mode of Disabling Ordnance; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a transverse section of a cannon, taken through the trunnions, illustrating our invention. Fig. 2 is a top view of one of the screw-plugs shown in the left-hand trunnion.

Similar letters of reference indicate corresponding parts in both figures.

The object of our invention is to provide for the certain disablement of ordnance whenever it becomes necessary in war by destroying the trunnions; and to this end it consists in making cavities in the trunnions for the reception of charges of gunpowder, by the explosion of which the trunnions may be entirely blown off or broken to such an extent as to prevent the possibility of mounting the piece for service.

To enable others to apply our invention to use, we will proceed to describe it with reference to the drawings.

Fig. 1 exhibits two different constructions of and modes of loading the cavities and firing the charges contained therein, that exhibited in the left-hand trunnion, A, being, perhaps, the best suited for short trunnions, and that exhibited in the right-hand trunnion, B, for long ones. The cavity *a* in the trunnion A is of cylindrical form, and made by drilling or boring into and nearly through the base of the trunnion, perpendicular to its axis, with a drill or boring-tool of suitable size. The mouth of this cavity is tapped to a suitable depth with a screw-tap, to enable it to receive two screw-plugs, *c* and *d*, which are screwed in one after the other by a screw-driver after the cavity has been charged with gunpowder.

These plugs have each provided in it a small hole or groove, *e*, as shown in Fig. 2, to serve as a vent, the two holes or grooves being arranged in corresponding positions, that the two may be brought opposite to each other whenever desired, to form a direct communication with the charge in the cavity *a*. Until it is desired to destroy the trunnion the outer plug, *d*, is kept in a position in which its hole or groove *e* is not in line with the corresponding hole or groove in the inner plug, *c*, and the latter is closed to exclude moisture from the cavity *a*; but when it is desired to fire the charge in *a* the plug *d* is turned to bring its hole or groove *e* over the hole or groove *e* in the plug *c* and form a direct vent, into which a friction-tube or other priming can be inserted to fire the said charge, the explosion of which blows off the trunnion close to the body of the gun, and destroys the contiguous portion of the carriage if the gun be mounted. The cavity *b* in the trunnion B is formed by boring out the trunnion centrally from its end to a depth equal or nearly equal to its entire length. This cavity may be enlarged from its mouth in the form of a pear, as shown in Fig. 1. Its mouth is tapped for the reception of a screw-plug, *f*, which is screwed in after the cavity has been charged with gunpowder. This screw-plug has no opening, but is made concave at its inner end to enable it to be expanded by the force of the explosion of the charge in the cavity *b*, and thus more effectually prevented from being blown out when the said charge is fired. The vent *h* for firing the charge is at the back of the cavity *b* on the top of the trunnion, and is closed by a screw or other plug, *g*, until it is desired to destroy the trunnion, when the said plug is removed and a friction-tube or other priming is inserted in its place to fire the charge, by the explosion of which the trunnion is burst in pieces or broken off close to the body of the gun, and the contiguous portion of the carriage destroyed if the gun be mounted.

The cavities in the trunnions may be kept charged, or may not be charged until it is

likely that the gun will have to be abandoned, when the charging may be effected very quickly.

The plug *c* may be made concave at its inner end, like the plug *f*, for the same purpose.

What we claim as our invention, and desire to secure by Letters Patent, is—

Providing cavities in the trunnions of ordnance for the reception of charges of gunpowder, by the explosion of which the trunnions

may be broken off or destroyed, substantially as herein specified.

PETER B. LAWSON.
ALFRED BERNEY.

Witnesses for Lawson:

R. N. CLARK,
JAS. FINLAY.

Witnesses for Berney:

M. S. PARTRIDGE,
DANIEL ROBERTSON.