WRIGHT & GOULD.

Breech-Loading Ordnance.

No. 22,325. Patented Dec. 14, 1858.

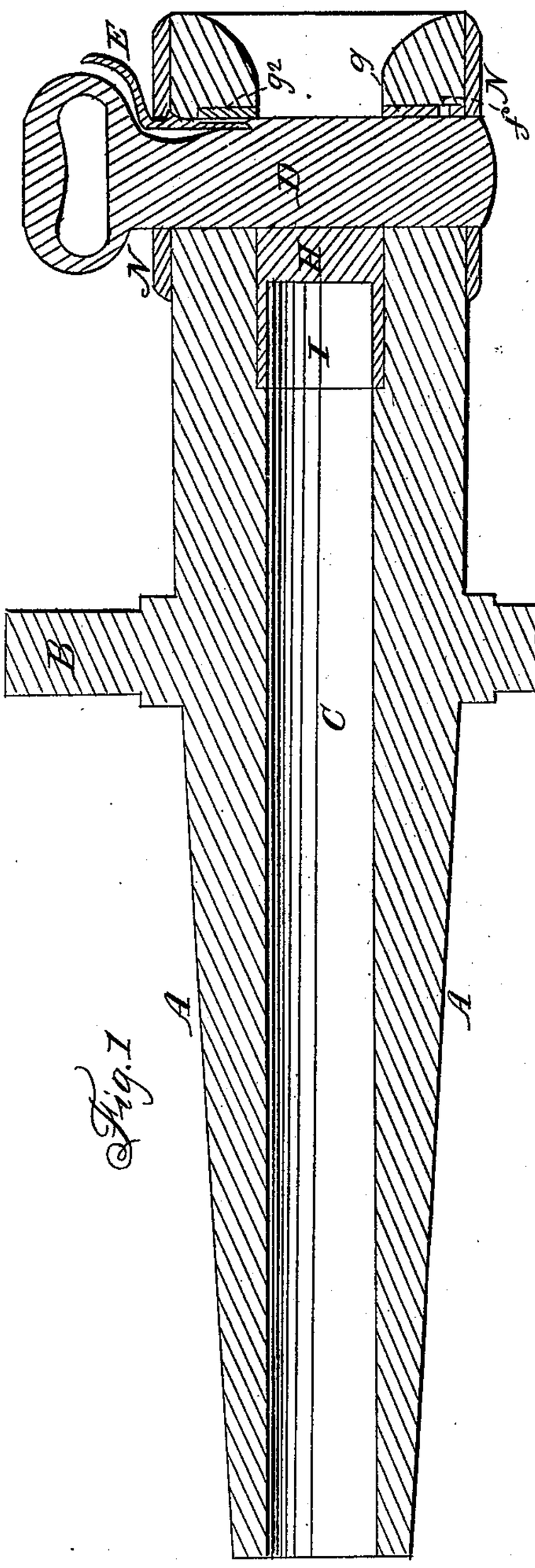

Fig. 1

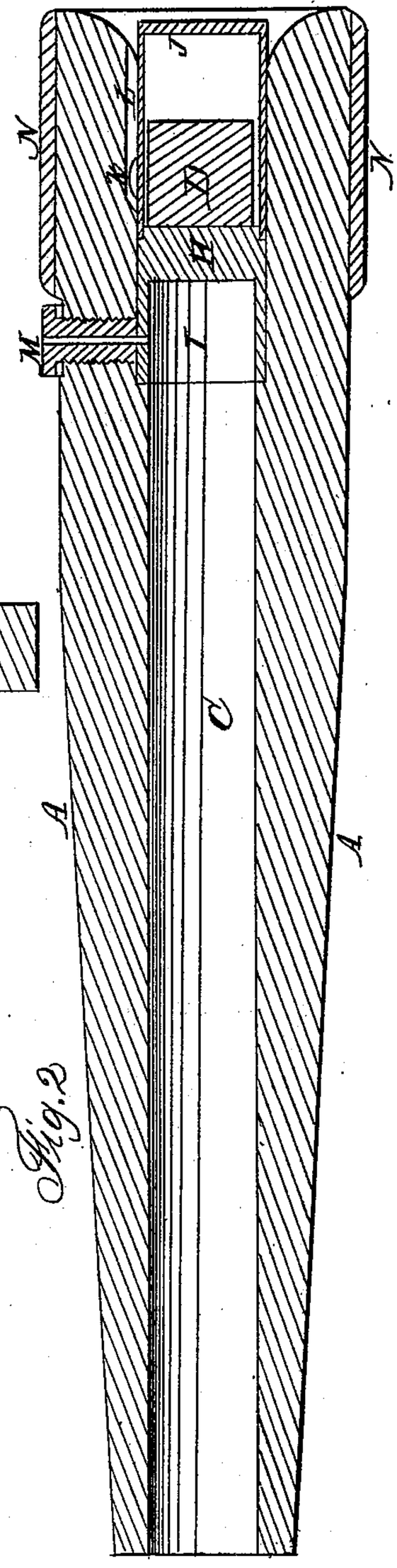

Fig. 2

UNITED STATES PATENT OFFICE.

EDWD. S. WRIGHT AND THEO. P. GOULD, OF BUFFALO, NEW YORK

IMPROVEMENT IN BREECH-LOADING CANNONS.

Specification forming part of Letters Patent No. **22,325,** dated December 14, 1858.

To all whom it may concern:

Be it known that we, EDWARD S. WRIGHT and THEODORE P. GOULD, of the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Breech-Loading Cannons; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon.

The nature of our invention relates, first, to making an opening or mortise transversely through the breech of a cannon, and in the construction and use of a sliding abutment in combination therewith, as herein set forth; second, in the construction and use of an expansive chamber, which contains the cartridge, and which expands when the cannon is discharged, and fills the bore so perfectly as to prevent "windage," and which also absorbs a greater portion of the heat, and has the effect to keep the cannon cool; third, in the application of a wrought-iron band shrunk around the breech of a cannon, when the same is combined with an opening or mortise and sliding abutments, as herein described.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

Figure I is a longitudinal section. Fig. II is a longitudinal section, taken at right angles with Fig. I.

A is a cannon; B, trunnion; C, caliber.

D is a sliding abutment. This is nicely fitted into a mortise made transversely through the breech, and is sufficiently strong to resist the force of the discharge without springing.

E is a spring-catch, which holds the abutment in its place in the mortise.

f is a pin, which passes into the slot g^2 and prevents the abutment from being drawn entirely out of the mortise when the cannon is being loaded.

H is an expansive chamber. The bore I or hollow part of this chamber is of the same diameter as the caliber forward of the chamber, while the caliber of that part of the breech which receives the chamber H is made sufficiently large to freely admit the chamber.

J is a bail. This is connected to the bottom of the chamber for the purpose of conveniently handling the chamber.

K represents a nib on the bail, which slides in the groove L and serves as a guide to bring the priming-hole of the chamber directly in range with the priming-tube of the cannon.

M is a priming-tube. This is screwed into the cannon. It has a square head, so that it may be readily put in or taken out with a wrench.

N is a wrought-iron band, which is shrunk around the breech for the purpose of adding strength. The mortise passes through this band, as does also the sliding abutment.

The drawings represent the expansive chamber, which contains the charge, as in its place in the caliber, and the sliding abutment as in its place in the mortise through the breech when the cannon is ready to be discharged. In order to reload after the cannon has been discharged, the handle of the abutment is grasped by the hand, the thumb pressing against the spring E, so as to release the catch. The abutment is then drawn out until the pin *f* strikes the bottom of the groove g^2. This releases the chamber, so that it may be drawn out by means of the bail J. Another chamber containing a charge is instantly put in, and the abutment moved back and behind the bottom of the chamber, (the bottom of the chamber resting against the abutment,) and the cannon is again ready to be discharged. Several chambers are used with one cannon, so that a chamber containing a charge is constantly ready to be used. The chamber receives the principal part of the heat occasioned by the discharge, and it being instantly removed after the discharge, and another chamber, which is perfectly cool, being put in for the next charge, the cannon itself will remain sufficiently cool for a much greater number of successive shots than has heretofore been attained, and the cannon can be loaded and discharged with greater rapidity than heretofore.

Cannon already in use may be easily fitted to receive this improvement. These chambers have the effect to prevent the burning and granulation of the breech, and hence cannon which are fitted to use them will last for a much greater service than those of an ordinary kind.

We claim—

1. A mortise made through the breech of a cannon, in combination with the sliding abut-

ment D, for the purposes and substantially as herein set forth.

2. The expansive chamber H, or its equivalent, in combination with the cannon A and sliding abutment D, for the purposes and substantially as herein described.

3. The application of a wrought-iron band shrunk around the breech of a cannon when the same is combined with a mortise and sliding abutment, as herein set forth.

EDWARD S. WRIGHT.
THEODORE P. GOULD.

Witnesses:
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E. B. FORBUSH.