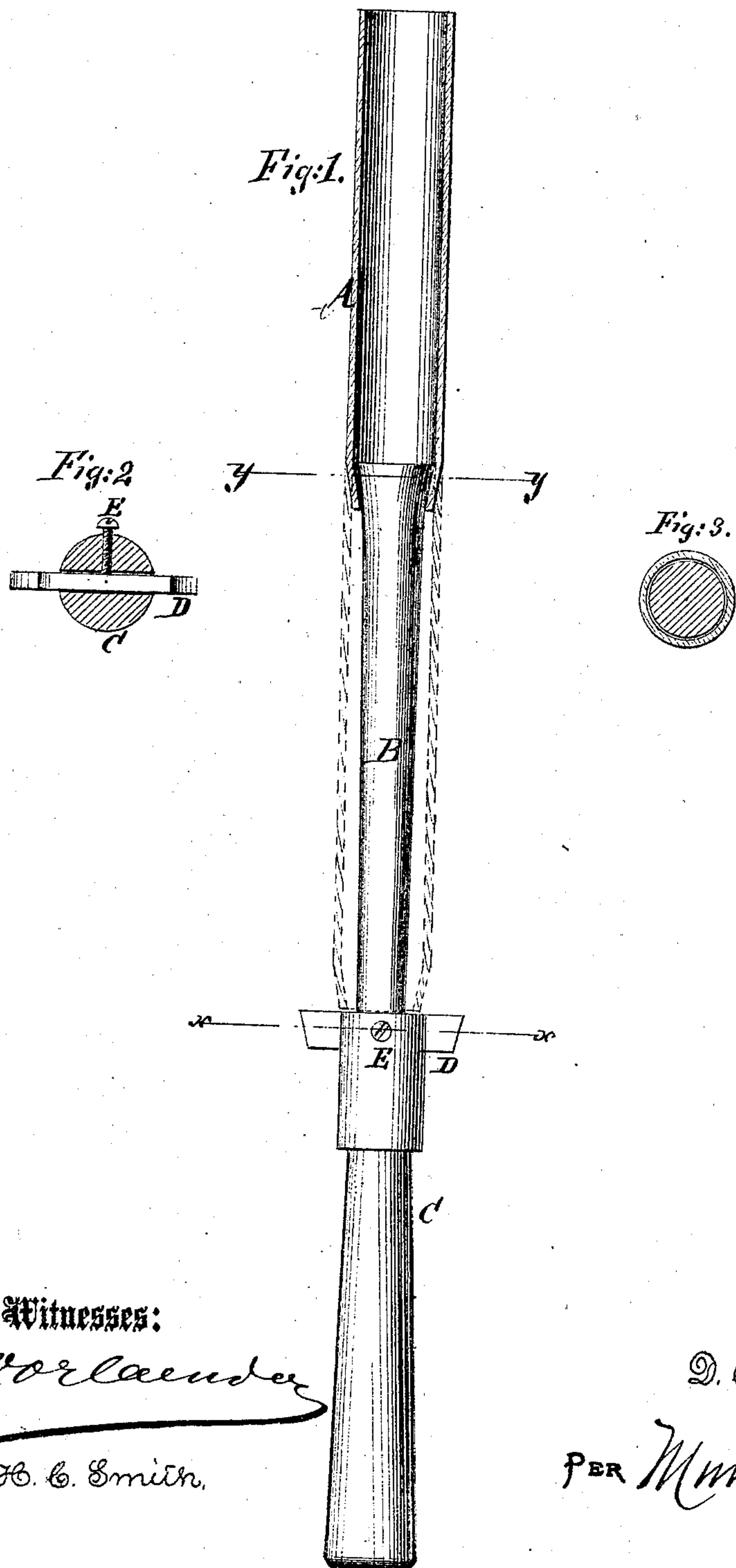


D. Corgan, Tamping Injector.

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PATENTED JUL 4 1871



Witnesses:

M. Vorlaender

Wm. H. C. Smith.

Inventor:

D. Corgan.

PER

Wm. L.

Attorneys.

UNITED STATES PATENT OFFICE.

DANIEL CORGAN, OF SUGAR NOTCH, PENNSYLVANIA.

IMPROVEMENT IN TAMPING APPARATUS.

Specification forming part of Letters Patent No. 116,565, dated July 4, 1871.

To all whom it may concern:

Be it known that I, DANIEL CORGAN, of Sugar Notch, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Improvement in Tamping-Injector; 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 drawing forming part of this specification.

This invention relates to a new and useful improvement in tamping charges in the process of blasting rocks or coal; and it consists in a tamping-injector, constructed and operating as hereinafter described.

In the accompanying drawing, Figure 1 represents a longitudinal section of the cylinder or barrel with the handle or rod connected therewith. Fig. 2 is a cross-section taken on the line *x x* of Fig. 1. Fig. 3 is a cross-section taken on the line *y y* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is the cylinder or barrel, in which the tamping material is placed. B is the rod, the end of which is made to fit the inside of the barrel, so that it may act as a plunger therein for forcing out the tamping material into the drill-hole, where powder or other explosive substance has been placed. The cylinder is bent slightly inward at

the lower end, so as to prevent it from being drawn off the plunger, whose head or upper end is made larger than its body or remaining portion. C is the handle. D is a stop or key which passes through the handle, but is removable by means of the screw E. This stop prevents the plunger from passing entirely through the barrel. The diameter of the barrel A is slightly greater than that of the drill-hole. The end of the barrel is placed so as to inclose the drill-hole, and the tamping material is forced into the hole and pressed by the plunger so that it will remain in a hole drilled upward into a seam of coal, which is worked from the bottom, as is frequently the case in mining anthracite coal. When the tamping material has been pressed into the hole the tamping-bar is applied, by which the material is rendered as compact as may be desired.

By the use of the tamping-injector much valuable time is saved, and the risk to life and limb from this dangerous occupation is greatly lessened.

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

A tamping-injector for use in blasting, constructed, substantially as shown and described, so as to admit of the operation specified.

Witnesses:

DANIEL CORGAN.

MICHAEL CORIGAN,
BERNARD PHILLIPS.