H. Bateman & D. Cumming, Jr.

Boring Artesian Wells.

No. 52,816. Patented Feb. 27, 1866.

Fig. 1.

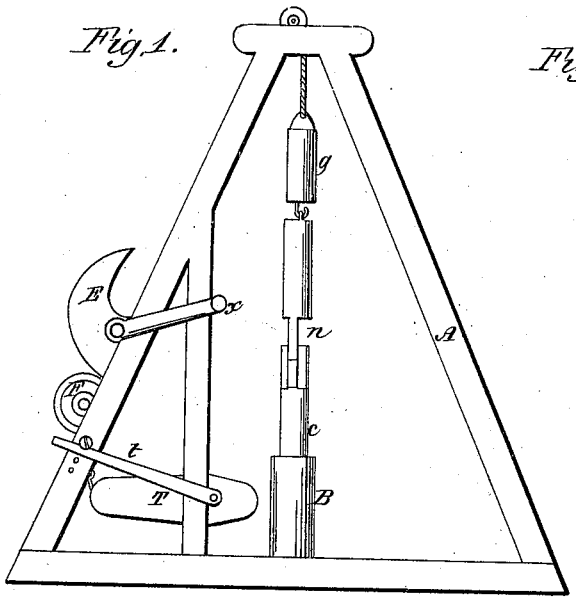


Fig. 2.

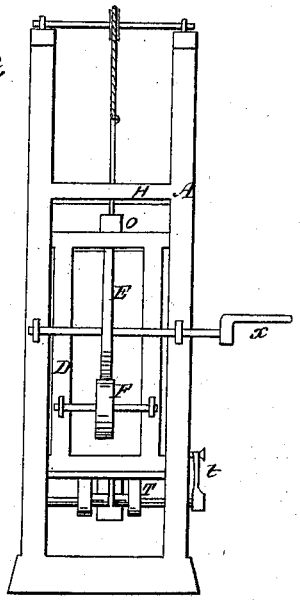


Fig. 4.

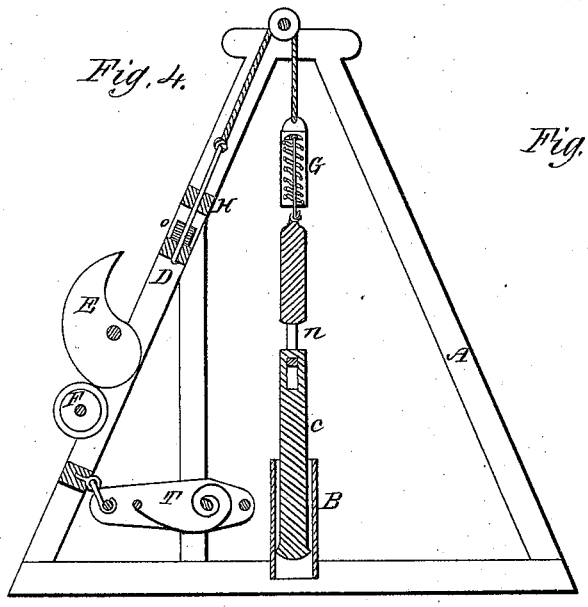
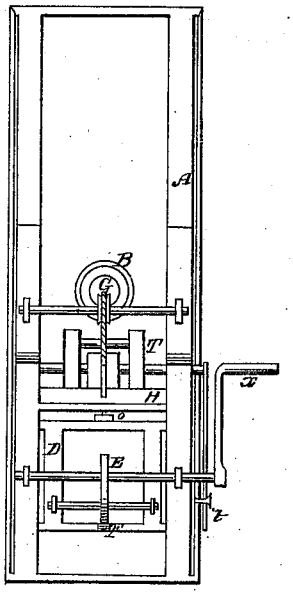


Fig. 3.



Witnesses.

James H. Bateman

George W. McClintock.

Inventors.

Horatio Bateman

David Cumming Jr.

UNITED STATES PATENT OFFICE.

HORATIO BATEMAN AND DAVID CUMMING, JR., OF NEW YORK, N. Y.

IMPROVEMENT IN DRILLS FOR OIL AND OTHER WELLS.

Specification forming part of Letters Patent No. **52,816**, dated February 27, 1866.

To all whom it may concern:

Be it known that we, HORATIO BATEMAN and DAVID CUMMING, Jr., of the city, county, and State of New York, have invented a new and useful Machine for Drilling and Pumping Oil and other Wells; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side view, Fig. 2 an end view, Fig. 3 a top view, and Fig. 4 a vertical section.

The same letters refer to corresponding parts in the different figures, in which—

A is the main frame, B the well, C the drilling-tool, and D the sliding frame. E is a cam, having bearings in the main frame. F is a wheel, having bearings in the sliding frame. G is a spring, one end of which is attached to the tools and the other end to a rope passing over a pulley on the top of the main frame. The other end of the rope is attached to the sliding frame by a rod which passes through the cross-head H. I is a spring secured to the main frame, having arms the outer ends of which are attached to the lower end of the sliding frame. O is a bumper of any elastic material to deaden the blow of the sliding frame against the cross-head.

Manner of operation: The cam, being rotated by the crank X, comes in contact with the wheel F, thereby pressing down the sliding frame and raising the tools. When the cam slips off from the wheel the tools fall, carrying up the sliding frame, which is stopped by the bumper O against the cross-head H. When the tools strike the bottom the jars N fall, with the velocity they obtain operating the spring G, which immediately recoils, thereby jarring the tools loose. The spring I, being wound up to the necessary power by the lever *t*, draws down the sliding frame and assists in raising the tools. In pumping, the pump-rods are substituted for the drilling-tools.

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

1. The cam E, in combination with the sliding frame D and the spring I, for the purposes specified.

2. In combination with the above, the spring G, for the purpose of operating the jars, substantially as described.

HORATIO BATEMAN. [L. S.]
DAVID CUMMING, JR. [L. S.]

Witnesses:
CHARLES H. BATEMAN,
GEORGE SHOVER.