T. D. WILSON.

Machine for Drawing Bolts.

No. 222,112. Patented Nov. 25, 1879.

Fig. 1.

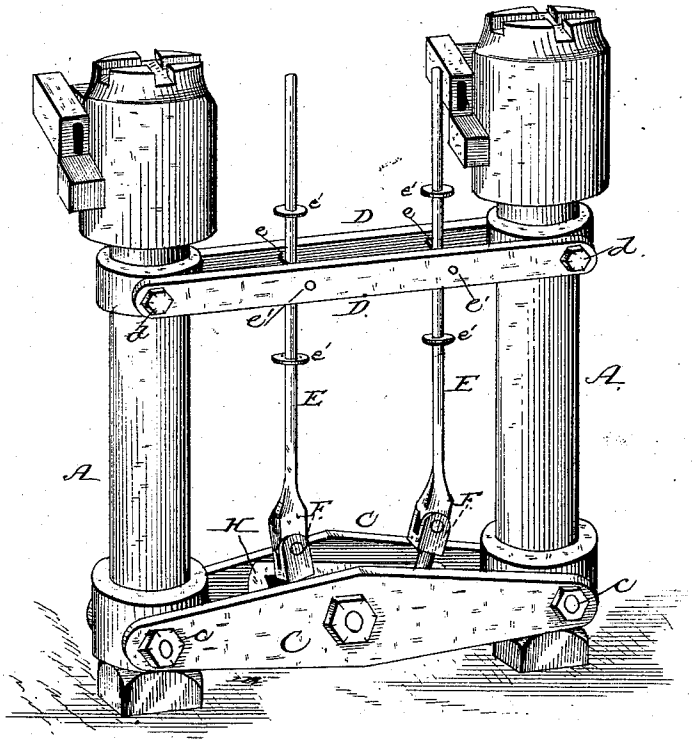
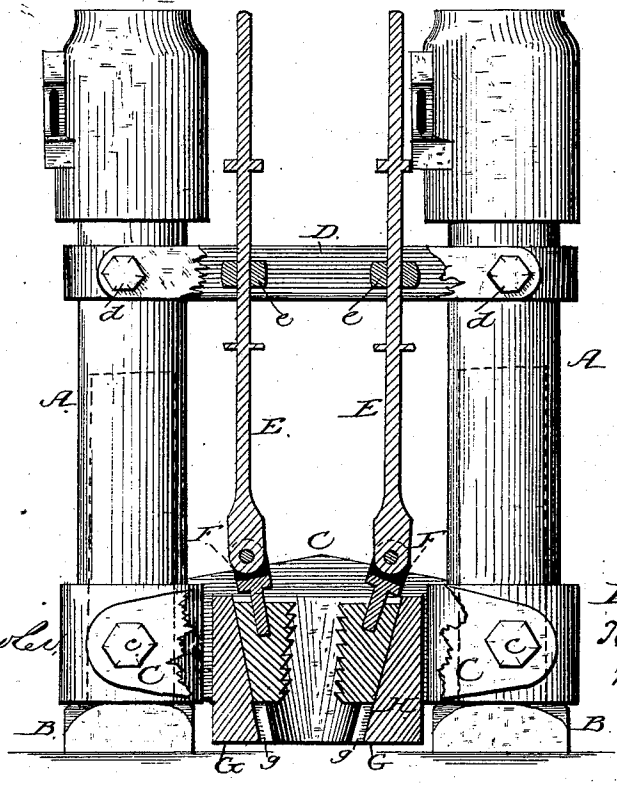


Fig. 2.



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THEODORE D. WILSON, OF UNITED STATES NAVY.

IMPROVEMENT IN MACHINES FOR DRAWING BOLTS.

Specification forming part of Letters Patent No. **222,112**, dated November 25, 1879; application filed October 9, 1879.

To all whom it may concern:

Be it known that I, THEODORE D. WILSON, a naval constructor in the navy of the United States, have invented a new and useful Improvement in Machines for Drawing Bolts, of which the following is a clear, full, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my improved machine; and Fig. 2 is a front elevation of the same, partially in section.

My invention relates to that class of inventions designed to draw large bolts from old ship-timbers; and it consists in the combination of devices hereinafter described and claimed.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A A represent two ordinary hydraulic jacks, and B B their pistons. These jacks are secured together at top and bottom by the cross-beams C and D, loosely pivoted to the jacks at *c* and *d*, whereby the jacks have a free motion to move alternately upward as their pistons are acted upon.

Between the two jacks I place the vertical bars E, which pass through the guide-blocks *e e*, pivoted or journaled in the cross-beams D, and provide them with the stops *e'*. To the lower ends of these bars I pivot the serrated blocks or jaws F, sliding loosely in the inclined dovetailed grooves *g*, formed in the block G. The block G is loosely pivoted to the cross-beams C between the jacks, and is free to oscillate to accommodate itself to the movements of the rest of the mechanism. In Fig. 2 is seen the block G in section and the position of the jaws in the block.

The operation of my invention is as follows: The machine is placed over the bolt, and the head of the bolt introduced between the jaws. By raising the jaws in their inclined grooves they may be placed in position to suit any sized bolt. When the head of the bolt is seized and the block G is caused to move up, it is evident that the harder the pull on the bolt the tighter becomes the grasp of the jaws on the bolt-head; then, by alternating the action of the rams, the largest bolts are readily extracted, and quickly, by two men.

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

In a machine for drawing bolts, the combination, with the hydraulic jacks A A, of the pivoted connecting cross-beams C D, pivoted grooved block G, jaws F F, rods E E, and pivoted guide-blocks *e e*, all constructed and arranged to operate substantially in the manner herein shown and described.

THEODORE D. WILSON.

Witnesses:
DAVID B. MACOMB,
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