

(No Model.)

W. HEISTER.
JOIST LIFTER.

No. 484,365.

Patented Oct. 11, 1892.

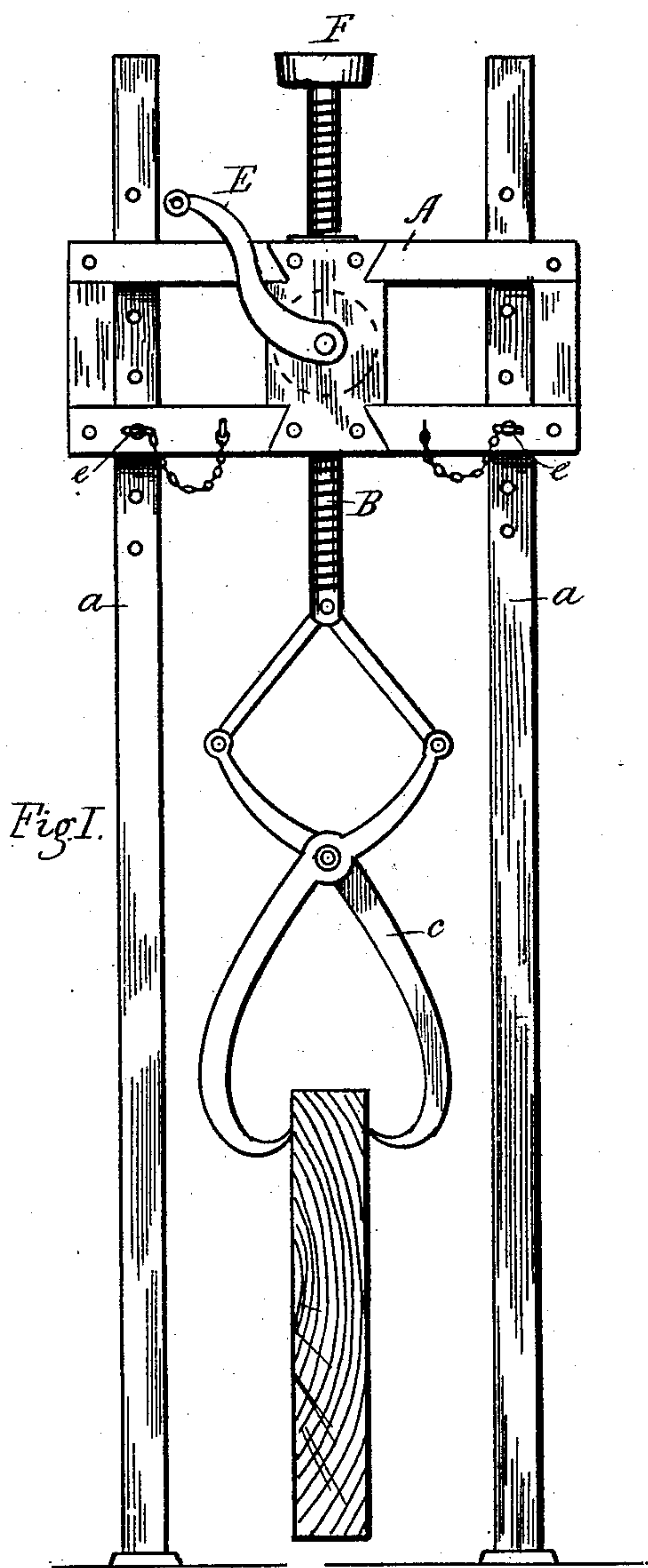


Fig. I.

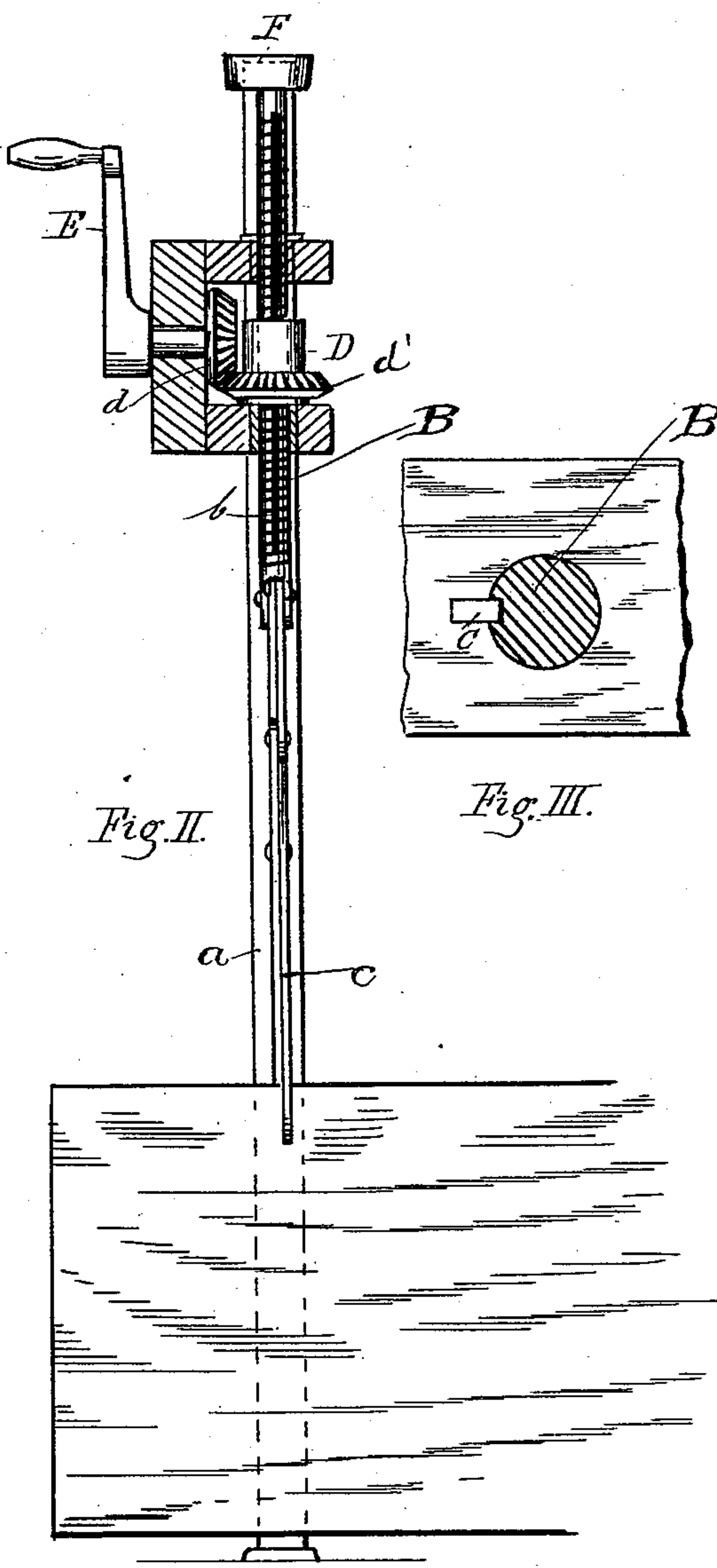


Fig. II.

Fig. III.

Witnesses.

Robert Kirk
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Inventor.

Wm. Heister.
By O. Bailey Atty.

UNITED STATES PATENT OFFICE.

WILLIAM HEISTER, OF BELLEVUE, KENTUCKY, ASSIGNOR OF TWO-THIRDS
TO PETER HEISTER AND H. B. WITTKAMPER, OF SAME PLACE.

JOIST-LIFTER.

SPECIFICATION forming part of Letters Patent No. 484,365, dated October 11, 1892.

Application filed May 18, 1891. Serial No. 393,193. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HEISTER, of Bellevue, in the county of Campbell and State of Kentucky, have invented a new and useful Improvement in Joist-Lifters, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure I is a side elevation of my improved joist-lifter; Fig. II, a central cross-section of the same; and Fig. III, a cross-section of the screw, showing the longitudinal groove therein and the stud engaging the same.

The object of my invention is to supply the urgent demand for an inexpensive and reliable machine whereby joists and other timbers used in the construction of buildings may be easily and quickly lifted off their supporting walls or beams and held at the desired level until permanently adjusted and underpinned. It is admitted that the means hitherto employed for the purpose—such as crow-bars and other levers—are not only inconvenient and inefficient, but are otherwise objectionable on account of their tendency to injure walls by disturbing the masonry and dislodging the bricks or stones.

My invention consists of a frame composed of two adjustable supports or standards carrying an adjustable cross-head provided with vertical non-rotatable screw and grapple operated by a crank.

Referring to the accompanying drawings, A designates the cross-head of my improved lifting device adjustably supported on standards *a a*. The screw B has on one side a longitudinal groove *b*, which engages a stud C in the lower part of the cross-head. By this means

the screw is adapted to move up or down without rotating. A grapple *c* is pivotally attached to the lower end of the screw, which is operated by a nut D, connected by bevel-gear *d'* to a corresponding wheel *d*, attached to the crank E. The cross-head is vertically adjustable by pins *e*, which engage holes in the standards. The machine is thus readily adapted to joists or timbers of different vertical dimensions. The screw is provided with a head F, and, if desired, can be used as a substitute for a lifting-jack.

The utility of the device will be readily understood. The standards are placed on the wall astride of a joist. The operator upholds the machine with one hand and with the other adjusts the grapple and turns the crank. When the joist is raised to the proper grade, the machine holds it in position and the workman is at liberty to adjust the underpinning.

What I claim as new is—

The joist-lifter consisting of the vertically-adjustable cross-head and its supporting standards, in combination with the longitudinally-movable non-rotatable screw carrying at its lower end relatively-fixed grapple-hooks, a nut, a spline or stud adapted to prevent said screw from rotating, a beveled gear on the nut, and a handled shaft having a correspondingly-beveled gear meshing with said nut-gear, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, this 15th day of May, 1891, in the presence of witnesses.

WILLIAM HEISTER.

Witnesses:

R. S. MILLAR,
L. M. ADAMS.