

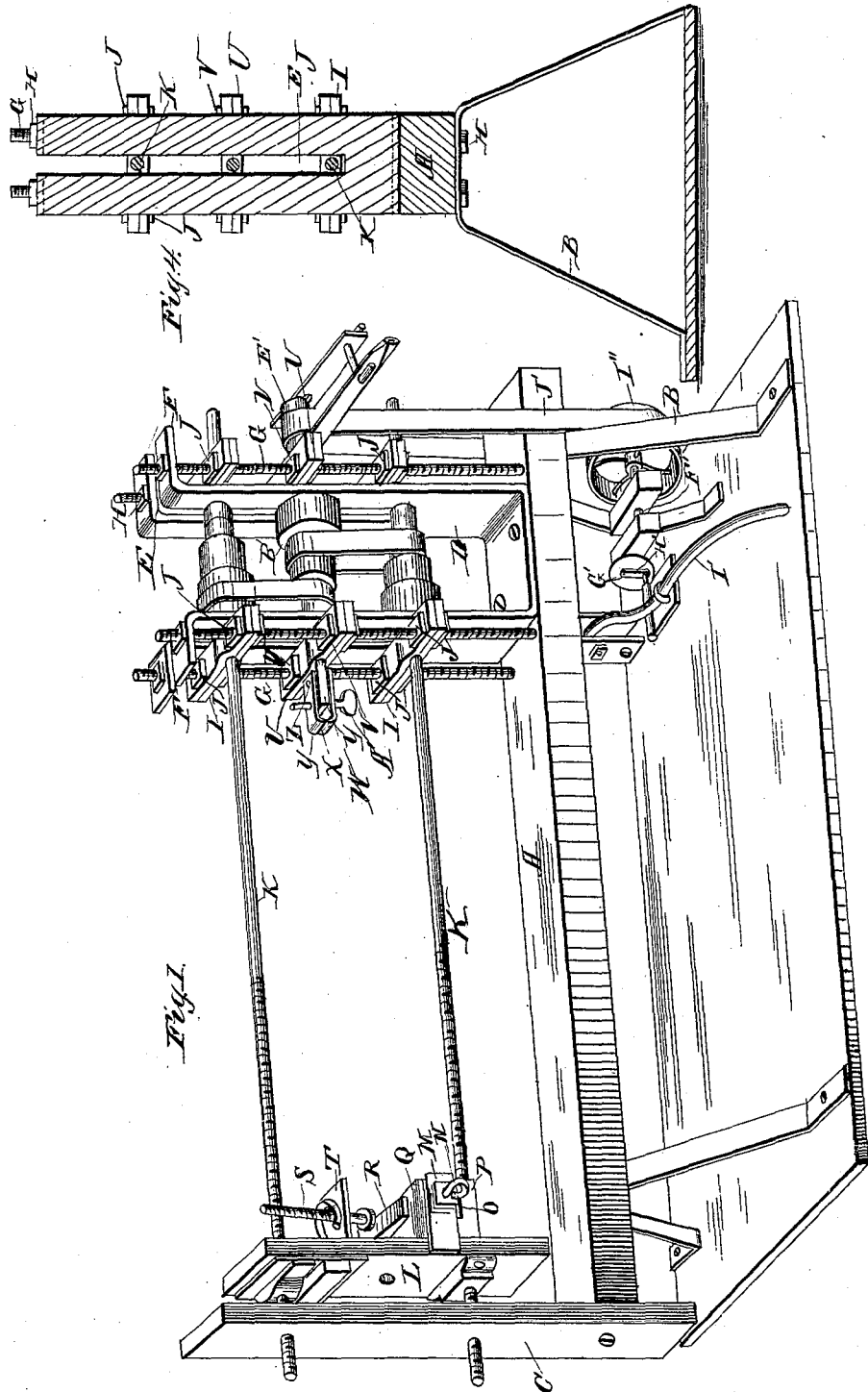
(No Model.)

2 Sheets—Sheet 1.

F. WHALEY. LATHE.

No. 248,371.

Patented Oct. 18, 1881.



WITNESSES

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INVENTOR

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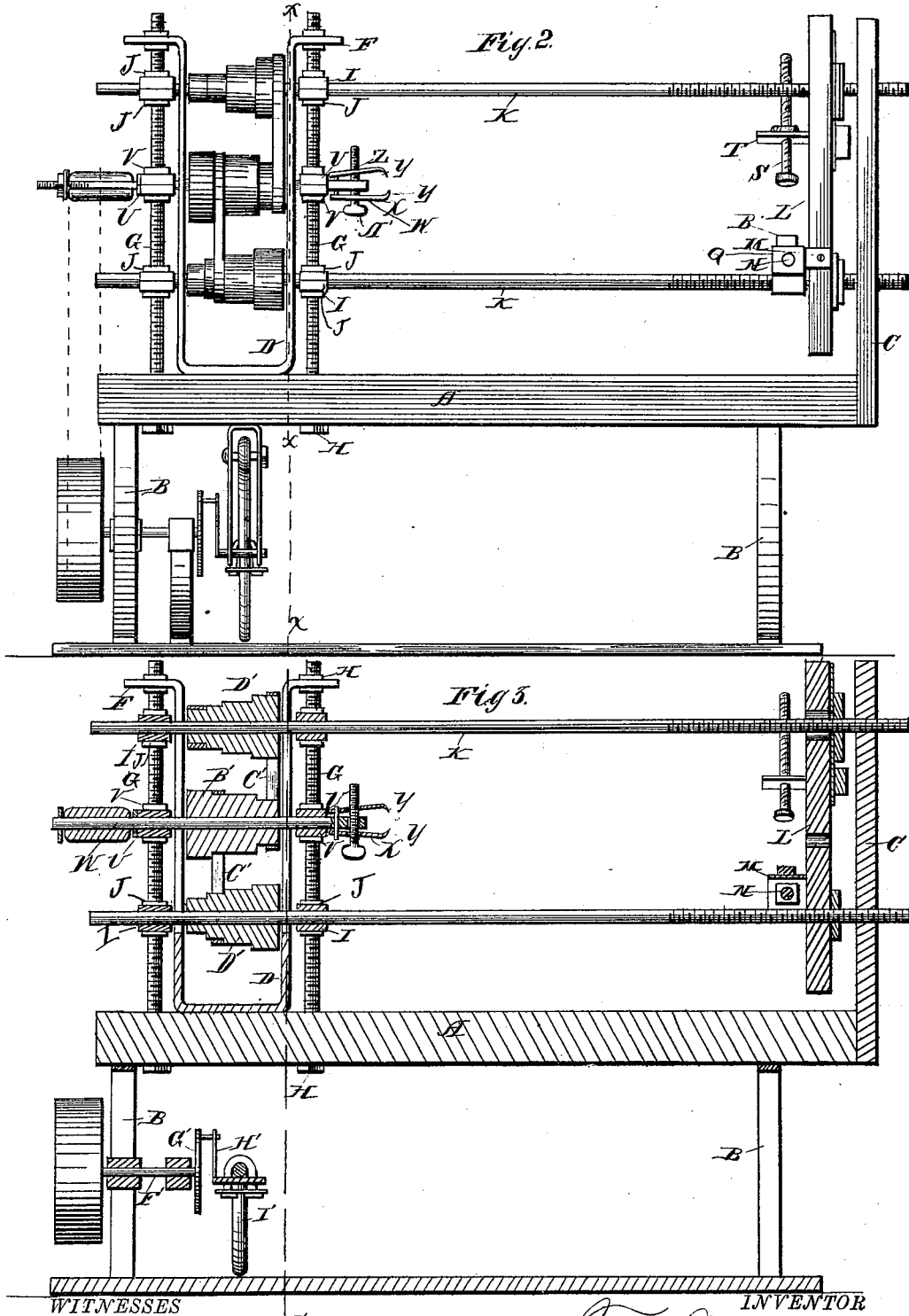
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UNITED STATES PATENT OFFICE.

FRANK WHALEY, OF PAWLING, NEW YORK.

LATHE.

SPECIFICATION forming part of Letters Patent No. 248,371, dated October 18, 1881.

Application filed June 20, 1881. (No model.)

To all whom it may concern:

Be it known that I, FRANK WHALEY, of Pawling, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Vise-Lathes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a front perspective view of improved vise-lathe. Fig. 2 is a rear elevation of the same. Fig. 3 is a longitudinal vertical sectional view; and Fig. 4 is a vertical cross-section on the line *xx*, Figs. 2 and 3.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to an improved vise-lathe, the construction and operation of which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A represents a table or bench supported upon suitable legs, B B, and provided at one end with an upright, C.

Mounted upon the table, near the other end of the latter, is a U-shaped metallic frame, D, the legs of which are forked or slotted vertically, as shown at E, and have their upper ends turned outward to form brackets F.

G G are screw-threaded rods, four in number, two of which are placed on each side of the frame D and secured by nuts H to the bench A and to the brackets F of said frame.

I I are boxes, secured adjustably upon the rods G by means of nuts J, and forming bearings for two horizontal threaded rods, K K, arranged parallel to and one above the other, as shown. Said rods, which pass through the slots E in frame D, extend over the entire length of the table, and their ends are journaled in the upright C, as shown.

L is a vertical block or cross-head, having threaded openings, by which it is adjusted upon the rods K adjoining the upright C. Said cross-head is provided with a vertically-adjustable table or rest, Q, having an inclined face, R, between which and a screw, S, work-

ing in a bracket, T, upon the side of the cross-head, any article may be clamped and held securely while being operated upon.

U U are boxes, adjusted upon the rods G by means of nuts V. Said boxes form the bearings for a shaft, W, carrying at the end facing the cross-head L the vise X, which consists of two jaws or clamps, Y Y, secured to said shaft by a bolt, Z, and connected by a thumb-screw, A', swiveled in one of said jaws and passing through a perforation in the shaft. Between the arms of the frame D the shaft W carries a cone-pulley, B', connected by belts C' C' with corresponding cone-pulleys, D', upon the threaded rods or shafts K, and at its outer end the said shaft W is provided with band-

wheels E'. In suitable boxes or bearings under the bench or table is journaled a shaft, F', carrying at one end a crank-disk, G', the pin of which is connected by a pitman, H', with a lever, I', pivoted in a suitable bracket or hanger under the table. At its outer end the shaft F' has a drum, I'', connected by a belt, J', with the band-wheels E' on shaft W.

It will be seen that by operating the hand-lever I' a rotary motion is generated, which is conveyed to the shaft W, and thence to the rods K, upon which the cross-head is thus caused to travel toward or from the rapidly-revolving vise.

The uses of the machine are numerous, and will readily suggest themselves to those skilled in the art to which it appertains. Thus it may be used for boring, drilling, screw-cutting, and for numerous other purposes with good results.

It is obvious that the machine may be operated otherwise than by hand-power when so desired.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the bench or table A, forked frame D, threaded rods G, boxes I U, adjustable upon said rods and held by nuts J V, and the rods K K and shaft W, journaled in said boxes, as herein described, for the purpose set forth.

2. The combination of the bench A, upright C, frame D, rods G G, boxes I U, threaded rods K K, cross-head L, and operating mechanism, substantially as herein described, for the purpose shown and specified.

3. In a vise-lathe, the herein-described movable cross-head, having vertically-adjustable rest Q, having inclined face R, and the screw S, facing said inclined rest, as and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

FRANK WHALEY.

Witnesses:

J. F. HAIGHT,
FRED. C. TABER.