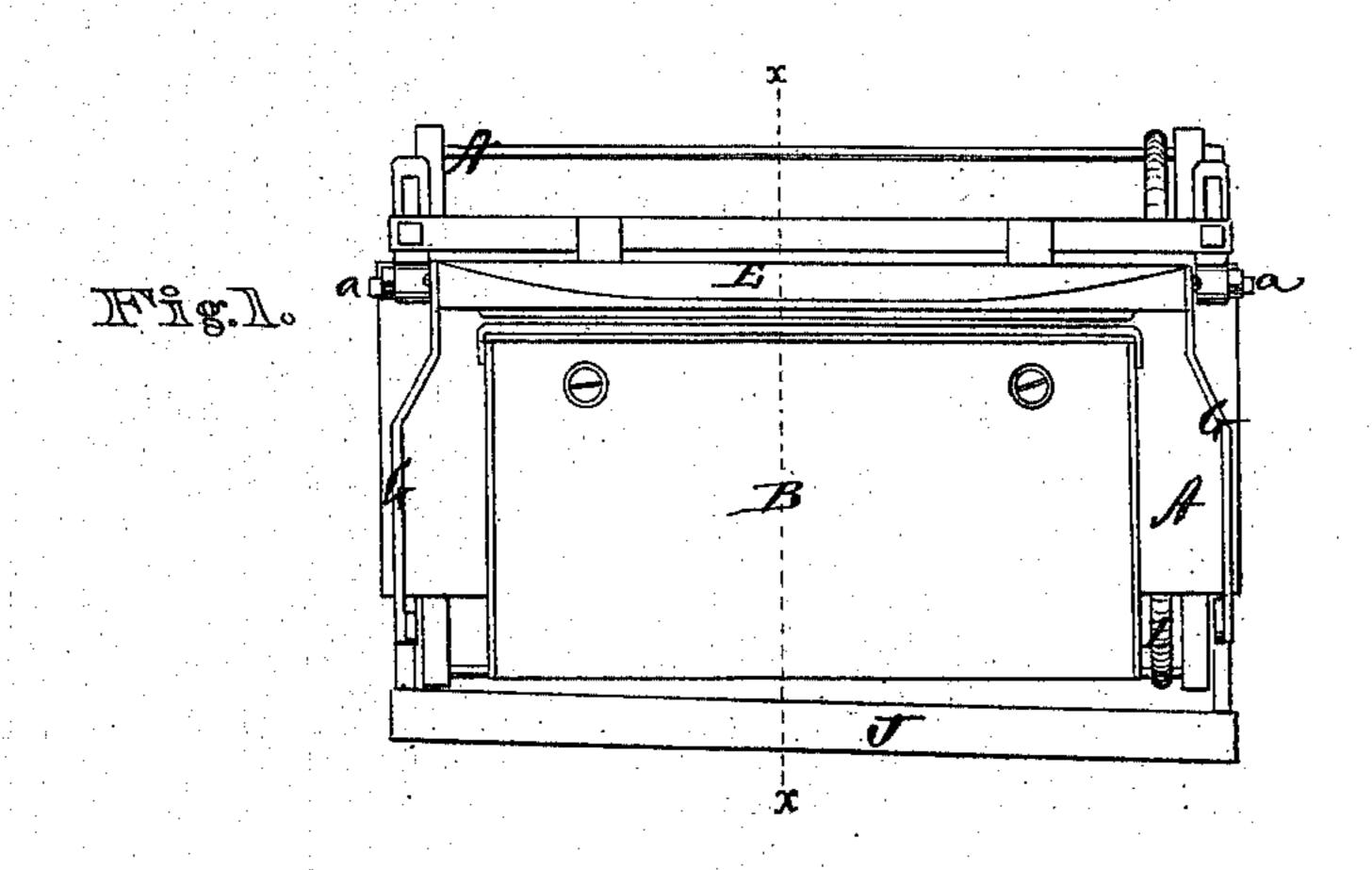
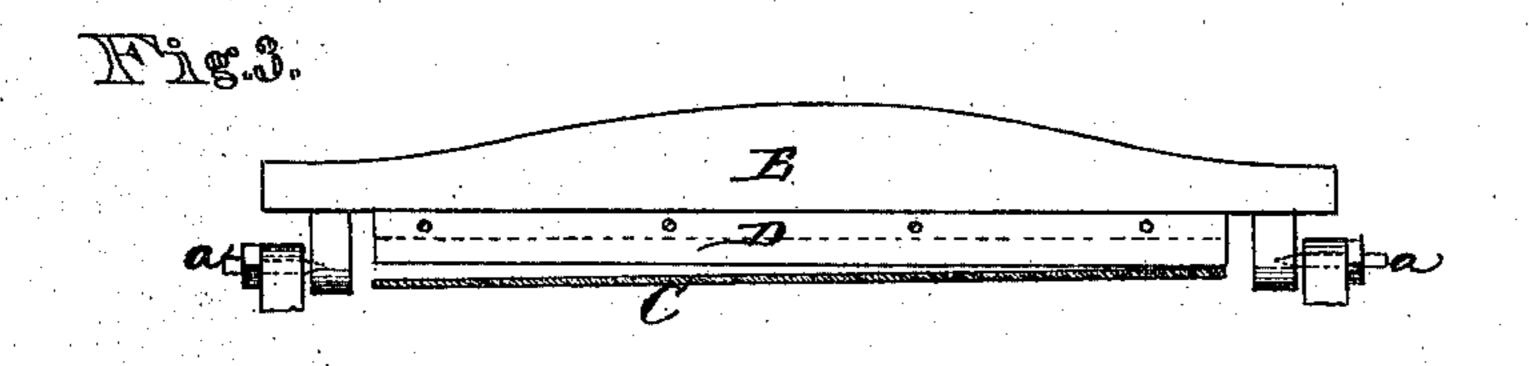
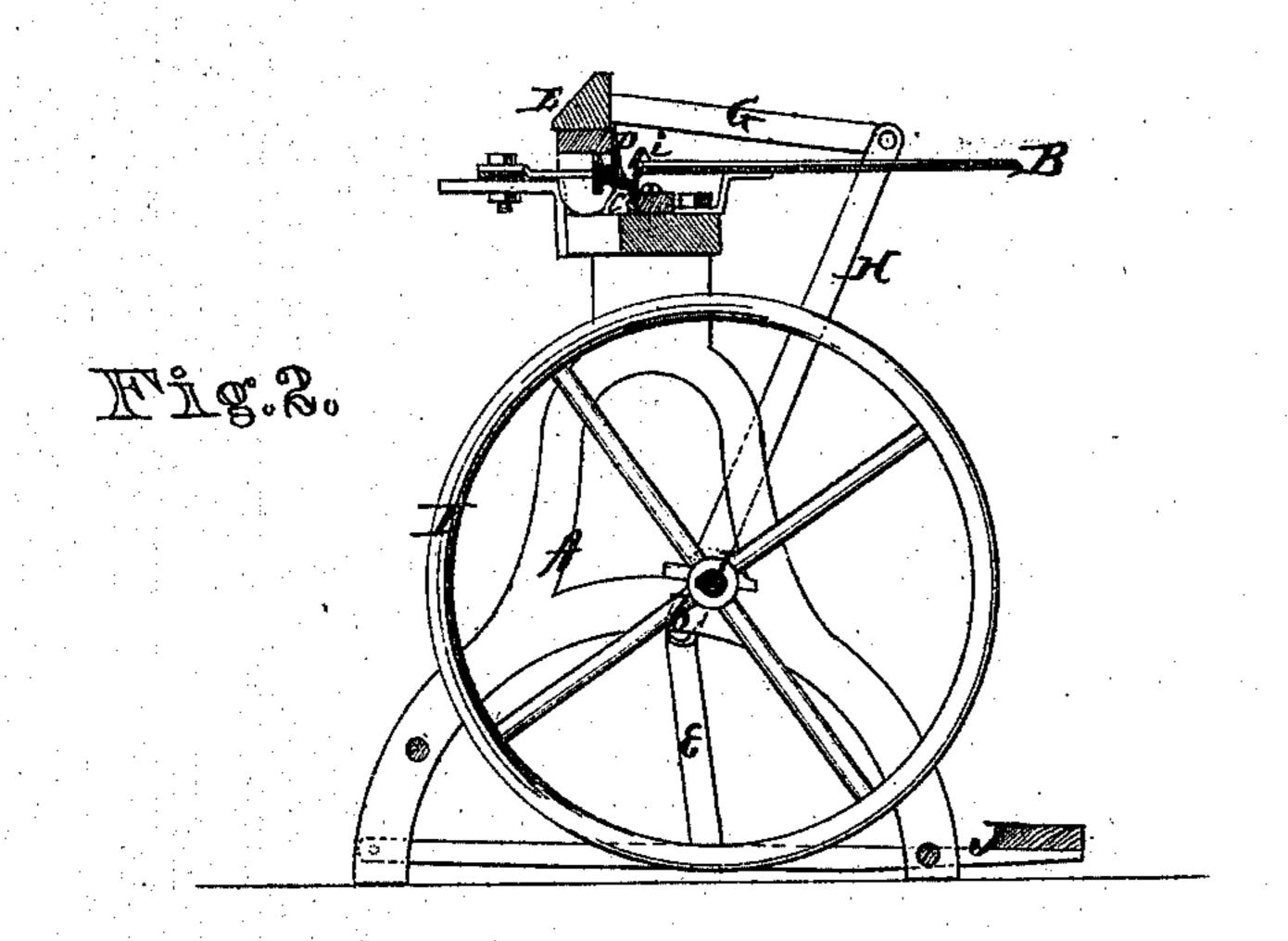
IT Start Metal.

10.112418.

Fatented Mar. J. 1871.







Wetreesees. Chathenyou. FB. Curtis

Elis Choole, Chipman Avsmerte, altys

United States Patent Office.

CHARLES B. CHOATE, OF EAST SAGINAW, MICHIGAN.

Letters Patent No. 112,418, dated March 7, 1871.

IMPROVEMENT IN MACHINES FOR CUTTING SHEET METAL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, Charles B. Choate, of East Saginaw, in the county of Saginaw and State of Michigan, have invented a new and valuable Improvement in Machines for Cutting Sheet Metal; and I do hereby declare that the following is a full, clear, and exact decription of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of my

machine in plan view;

Figure 2 is a transverse vertical section of the same;

Figure 3 is a front view of the cutters.

My invention is intended as an improvement upon the Roy & Wilcox squaring-shears, and consists in the arrangement of mechanism for operating the same, and also in a finger-guard on the table in front of the movable cutter.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction

and operation.

A represents the frame of the machine;

B, the table;

C, the stationary inclined cutter; and

D, the movable cutter.

The movable cutter D is attached to a rocking cutter-head or bar, E, turning upon pivots a a, and at

each end of said head or bar is an arm, G, connected by rods or bars H with cranks b b, one upon each end of a shaft, d, which has its bearings in the frame A.

Upon this shaft is a balance-wheel, I.

The cranks b b are, by rods or bars e e, connected with the treadle J, whereby a continual motion is produced, so that more work may be accomplished by the same labor.

With the addition of a pulley on the shaft d the machine can be run by steam or other power.

At the inner edge of the table B is placed a finger-

guard, i, for the protection of the operator.

Although these improvements are mainly intended for the Ray & Wilcox squaring-shears, they may be used or applied to other machines of similar nature.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The arrangement of the treadle J, two bars E, two cranks b, shaft d, balance-wheel I, two bars H, two arms G, and the movable rocking cutter-head E, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES B. CHOATE.

Witnesses:

S. J. REYNOLDS,

J. R. LOCKWOOD.