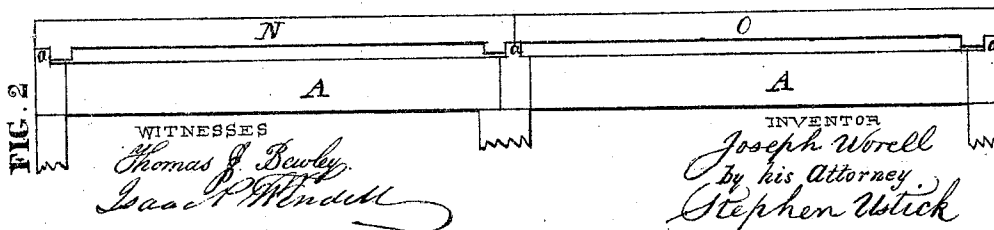
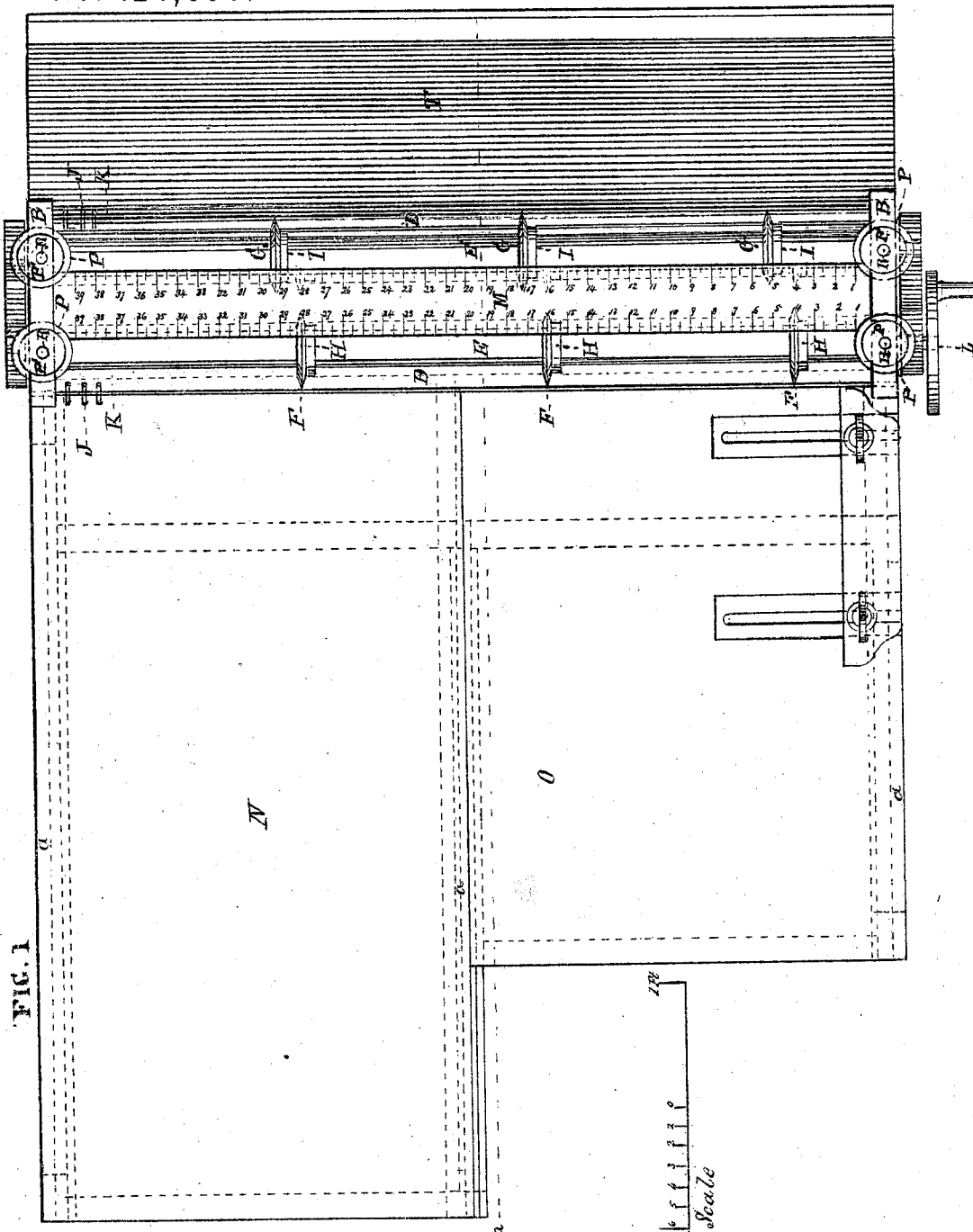


JOSEPH WORELL.

Paper Cutting Machine.

No. 124,650.

Patented March 12, 1872.



WITNESSES

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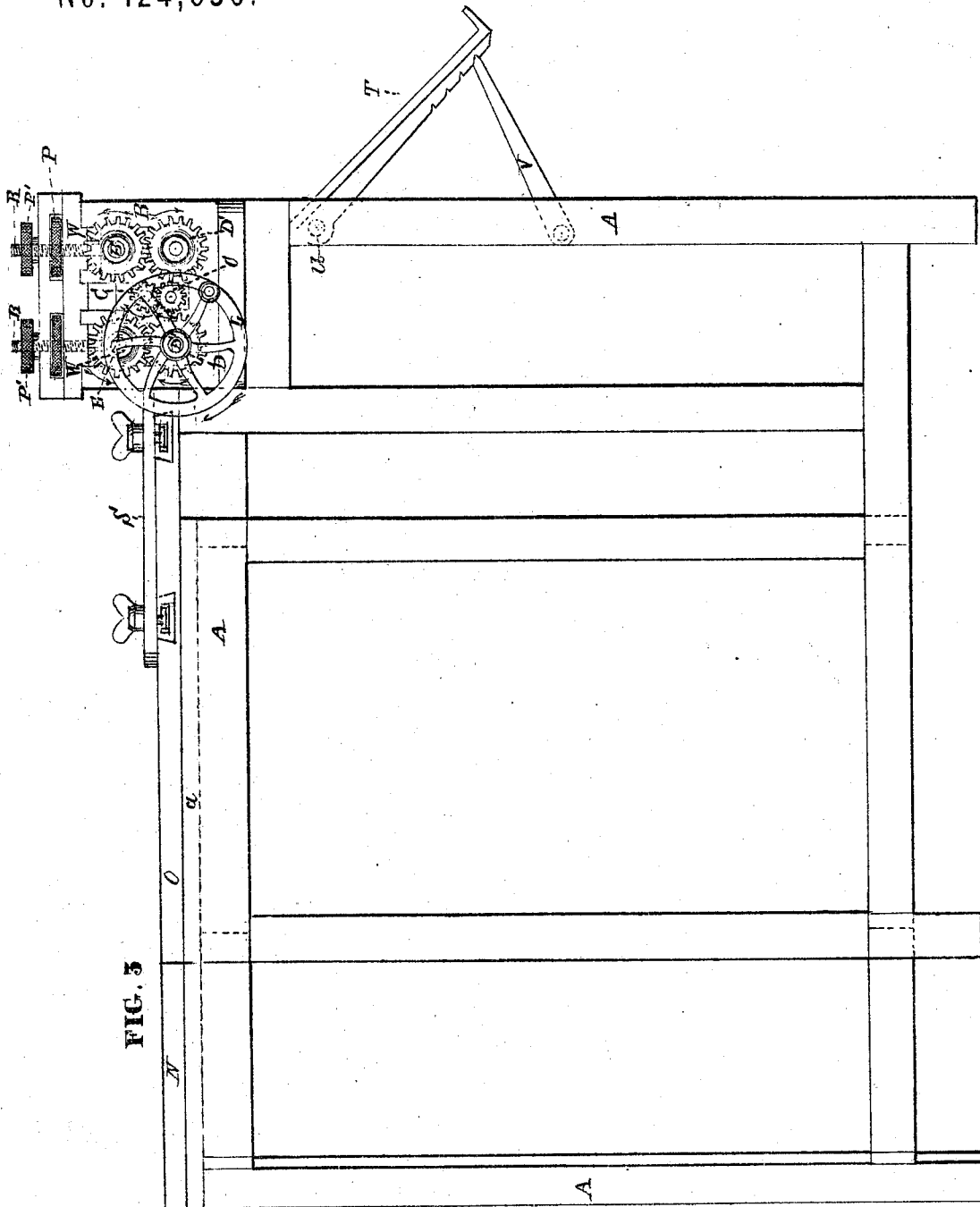
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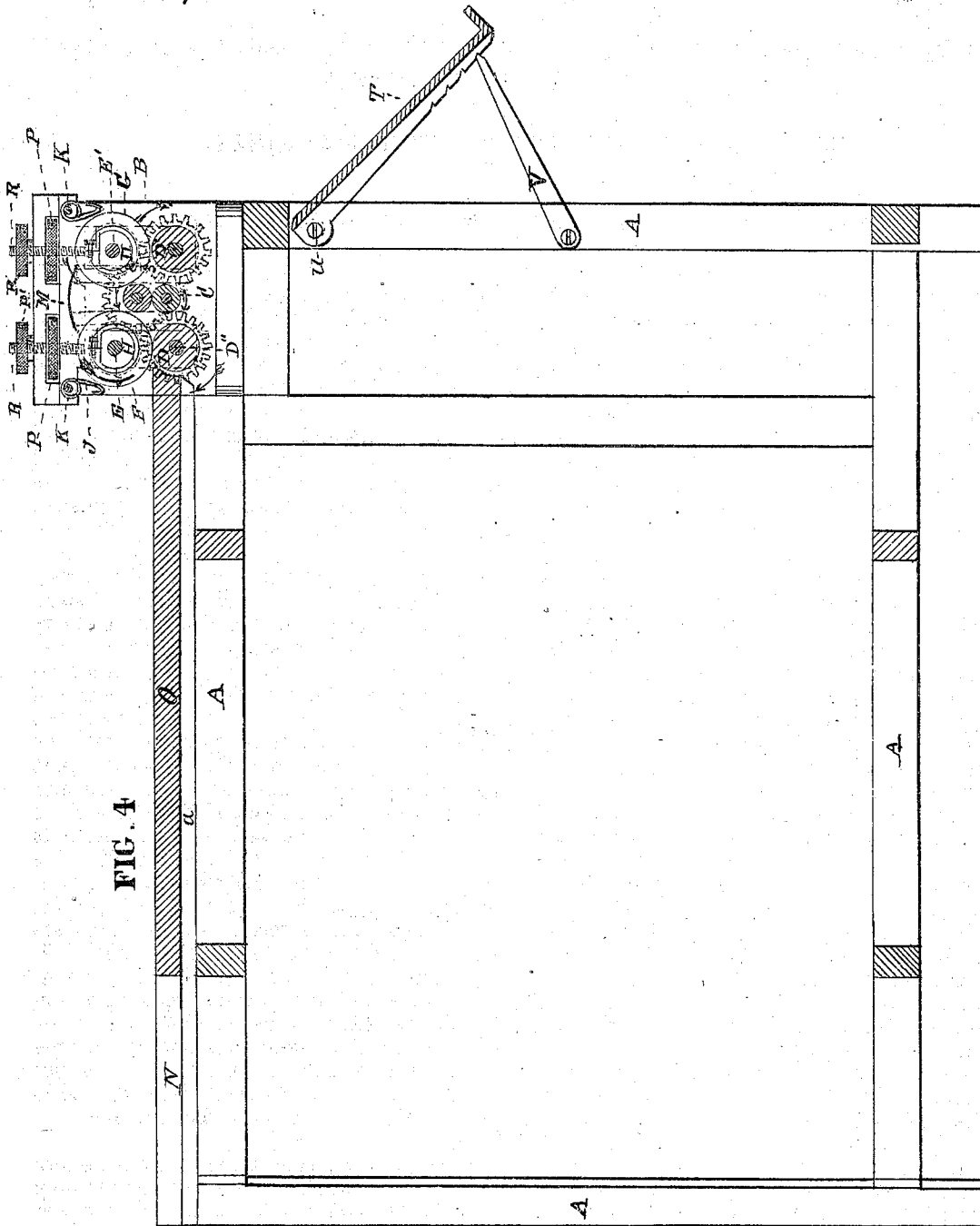


FIG. 4.

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UNITED STATES PATENT OFFICE.

JOSEPH WORELL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO JOSEPH S. SANBORN, OF NEW YORK CITY.

IMPROVEMENT IN PAPER-CUTTING MACHINES.

Specification forming part of Letters Patent No. 124,650, dated March 12, 1872.

Specification describing certain Improvements in Machines for Cutting and Scoring Boards for Paper Boxes, invented by JOSEPH WORELL, of the city of Philadelphia and State of Pennsylvania.

The invention mainly consists in the table, which is composed of a stationary part, upon which the boards are laid in a pile, and a sliding part, to which they are separately transferred previous to their passage through the machine. This admits of the operator getting into a convenient position to adjust the cutters and scorers, as he has only to move the slide backward without moving the pile of boards or altering the guide-gauge. To give greater facility to his passage into the machine, a part of the upper rail of the frame is omitted.

Figure 1 is a plan view of the machine. Fig. 2 is an end view of the stationary and sliding parts of the table, and a portion of the upper part of the frame A, on which it rests. Fig. 3, Plate 2, is a side elevation of the machine. Fig. 4, Plate 3, is a longitudinal section at the line *a b* of Fig. 1.

Like letters in all the figures indicate the same parts.

A is the standing frame. B B are the housings which support the journals of the feed-rolls C C, the rolls D D', and the shafts E E', which carry circular cutters F F F, and circular scorers G G G. The cutters and scorers are detachable from the hubs H I, in the manner shown in my patent for detachable cutters and scorers, dated June 13, 1871. When any of them are not brought into use in the operation, they are slipped from the hubs and connected with hooks J, which are movable on the stationary horizontal rods K, so that the shafts E E' may run freely in them, which prevents the cutters running loose on the shafts, and marking the material as it passes through the machine. The several shafts are connected by means of gear-wheels, represented in Figs. 1, 3, and 4, so as to run in the direction of the arrows. L is the driving-wheel on the

shaft D''. M is a rule or scale, for the lateral adjustment of the cutters and scorers. It has a permanent connection at each end with the housings B B. N is the part of the table on which the boards are placed in a pile to be cut, and are transferred to the part O previous to their passage through the cutters and scorers. The two parts of the table N O rest on ways *a a a* on the top of the frame A, as seen in Figs. 1 and 2, so as to be readily pushed backward to admit the operator in front of them for the adjustment of the machine, a portion of the upper rail at the front side being omitted in the frame, to facilitate the passage.

Ordinarily, the adjustment may be made by the backward movement of the part O without moving the part N, which is a great desideratum on account of the heavy weight of boards which rests upon it, and admits of the gauge being pushed up again square with the table. The sliding boxes W, which support the journals of the shafts of the cutters and scorers E and E', are adjusted by means of the milled nuts P on the screw-rods R, the rods being also provided with jam-nuts P'. The sliding part O is provided with a gauge, S, seen in Figs. 1 and 3. T is a receiving-table, on which the cut material falls as it passes from the machine. It is hung on pins U U, which connect with the sides of the frame A, and is supported by the adjusting-strip brackets V V, as seen in Figs. 3 and 4, to give any desirable angle. It may be made with a slide having parallel arms, to make it the proper length to receive the material when the boards are run lengthwise through the machine.

I claim as my invention—

The longitudinal separation of the table into two parts, N and O, so that the part O may be moved backward independently of the part N, substantially in the manner and for the purpose set forth.

JOSEPH WORELL.

Witnesses:

THOMAS J. BEWLEY,
STEPHEN USTICK.