2 Sheets--Sheet 1.

J. MARTIN.

Machines for Turning Bags.

No. 136,926. Patented March 18, 1873.

Fig. 1

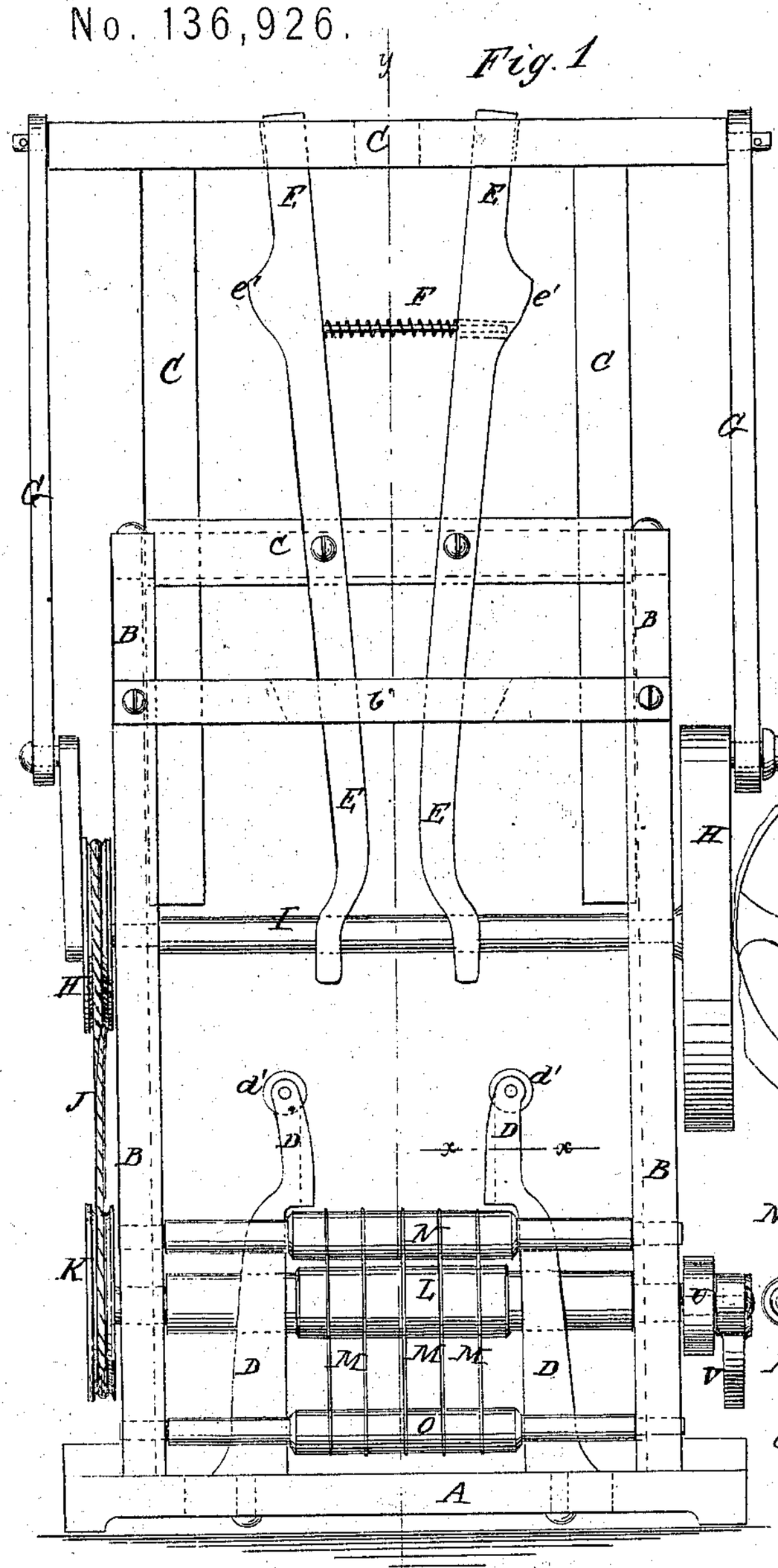

Fig. 2

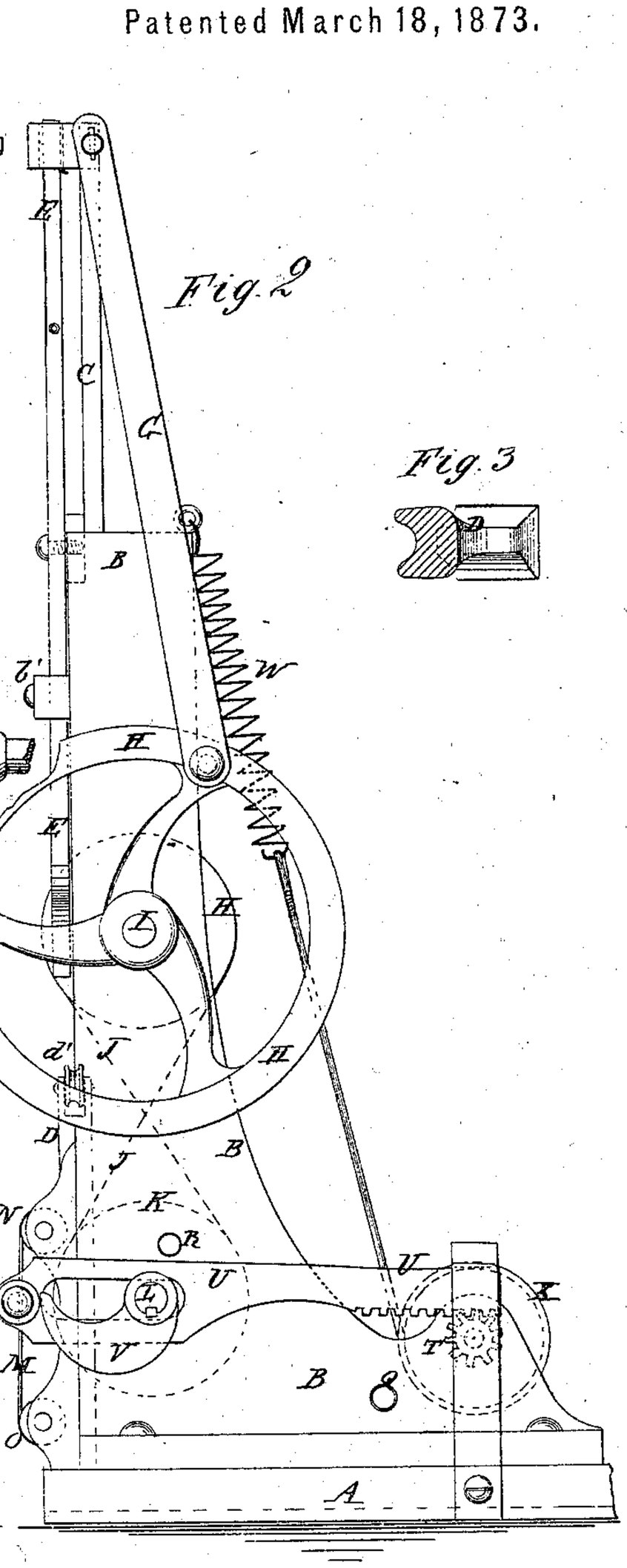

Fig. 3

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2 Sheets--Sheet 2.

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Fig. 4

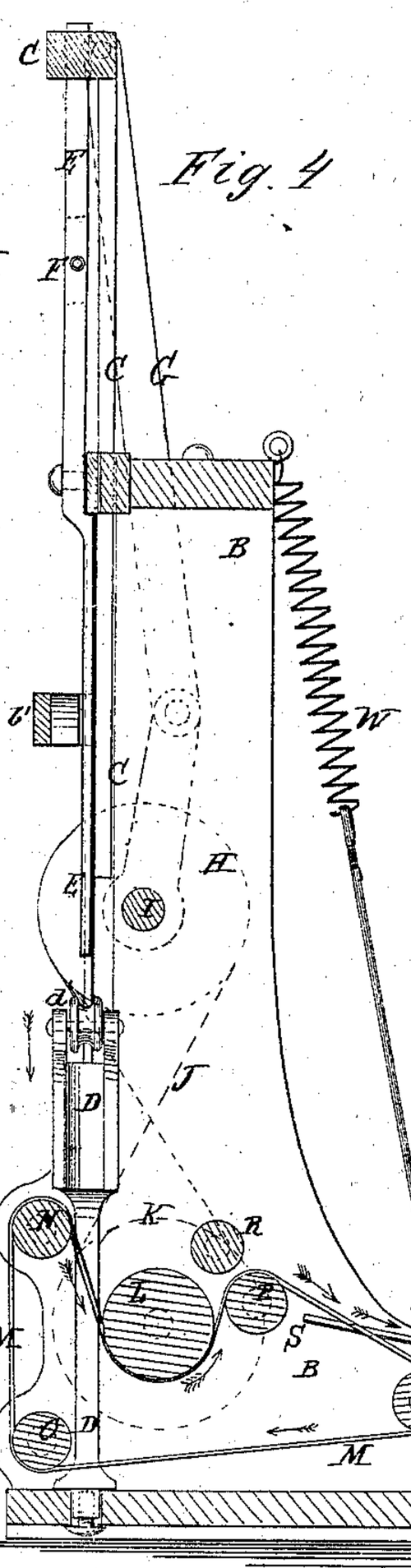
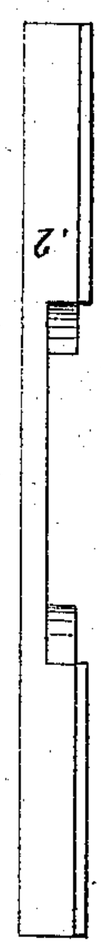


Fig. 5



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UNITED STATES PATENT OFFICE.

JOSEPH MARTIN, OF NEW YORK, N. Y.

IMPROVEMENT IN MACHINES FOR TURNING BAGS.

Specification forming part of Letters Patent No. **136,926**, dated March 18, 1873.

To all whom it may concern:

Be it known that I, JOSEPH MARTIN, of the city, county, and State of New York, have invented a new and useful Improvement in Machine for Turning Bags, of which the following is a specification:

Figure 1, Sheet 1, is a front view of my improved machine. Fig. 2, Sheet 1, is a side view of the same. Fig. 3, Sheet 1, is a detail cross-section of one of the receiving-arms taken through the line *x x* of Fig. 1. Fig. 4, Sheet 2, is a vertical section of the same taken through the line *y y* of Fig. 1. Fig 5, Sheet 2, is a detail view of one of the guard-bars.

My invention has for its object to furnish an improved machine for turning bags after they have been sewed, and which shall be so constructed as to take the bag after it has been turned and deliver it in a pile upon the platform or table of the machine; and it consists in an arrangement of grooved receiving-arms and reciprocating turning-arms provided with inclined shoulders and a spring, and in the combination of the tapes and rollers with the receiving-arms and turning-arms to take the bags from the turning-arms and deliver them to the fly; and in the combination of the gear-wheels, rack, cam, spring, and wheel with the fly and tape-roller, as hereinafter more fully described.

A is the table and platform of the machine, to the forward part of which are attached two uprights, B, in the inner sides of which, near their forward edges, are formed grooves to serve as a way for the frame C to move up and down in. To the platform A, between the uprights B, are attached two uprights, D, to receive the bag to be turned. The uprights or receiving-arms D are made in about the form shown in Fig. 1—that is to say, with an offset to allow the bag to be straightened out after being turned. To the upper ends of the arms D are pivoted friction wheels or rolls *d'* to diminish the friction as the bags are drawn over said arms in being turned. The rollers *d'* and the inner edges of the upper parts of the arms D are grooved to serve as guides to the turning-arms E as they move up and down. The receiving-arms D should be adjustably attached to the platform A, so that they may be moved toward or from each other, as may be desired, to adjust them according to the width of the bags to be turned. The turning-arms E are pivoted adjustably to a cross-bar of the sliding frame C, so that they may be adjusted according to the adjustment of the receiving-arms D. The arms E move up and down through a notch in the cross-bar *b'* of the uprights B, as shown in Figs. 1 and 5. The upper ends of the turning-arms E enter slots in the top cross-bar of the frame C, which limit their movements. The upper ends of the bars E are held apart, holding their lower ends in such a position as to enter between the receiving-arms D by a coiled spring, F, placed between said arms, and kept in place by a rod attached to one of said arms and passing through a hole in the other arm. Upon the outer edges of the upper parts of the arms E are formed, or to them are attached, inclines *e'*, which, as the bag is turned and the lower parts of the arms E pass below the offset of the receiving-arms D, strike against the ends of the notch in the cross-bar *b'*, and force apart or spread the lower ends of the said arms E, spreading out the bag. The ends of the upper cross-bar of the frame C project beyond the uprights B, and to said ends are pivoted the upper ends of the connecting-rods G, the lower ends of which are pivoted to cranks or crank-pins attached to the wheels H, which are attached to the ends of the shaft I that revolves in bearings in the uprights B. J is the band that passes around one of the wheels H and around the wheel K attached to the journal of the roller L, around which the tapes M pass. The tapes M also pass around the guide-rollers N O P Q. The guide-roller N is placed above and at such a distance in front of the roller L that the turning-arms E may pass down between the rollers N L, so that the tapes M and rollers L may catch the turned bag and carry it around the said roller L while the arms E are being withdrawn. The roller L should be padded to prevent the bag from slipping upon it. The tapes M carry the bag over the roller P and deliver it upon the fly, the roller R preventing the bag from being carried around the roller L. S is the fly, the fingers of which enter the spaces between the tapes M as they pass from the roller P to the roller Q. To one of the journals of the fly-

shaft is attached a small gear-wheel, T, into the teeth of which mesh the teeth of the rack-bar U. The rack-bar U is slotted to receive the journal of the roller L, upon which journal the said bar moves back and forth, and to which is attached a cam, V, which strikes against a pin attached to the bar U to turn the fly S into position to receive the bag. As the bar U is released by the cam V the fly S is operated to deposit the bag upon the platform A by the coiled spring W, one end of which is connected with the upper part of the standard B, and its other end is connected by a cord to the wheel X attached to the journal of the fly-shaft.

Power may be applied to the roller L or to the roller I, as may be desired or convenient.

Having thus described my inventiou, I claim as new and desire to secure by Letters Patent—

1. The grooved and stationary receiving-arms D D, the reciprocating turning-arms E E provided with inclines e', the spring F, and bar b', arranged to operate as specified.

2. The combination of the tapes M and rollers L N O P Q R with the receiving-arms D and turning-arms E, to take the bags from the arms E and deliver them to the fly S, substantially as herein shown and described, and for the purpose set forth.

3. The combination of the gear-wheel T, rack U, cam V, spring W, and wheel X with the fly S and tape-roller L, substantially as herein shown and described, and for the purpose set forth.

JOSEPH MARTIN.

Witnesses:
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