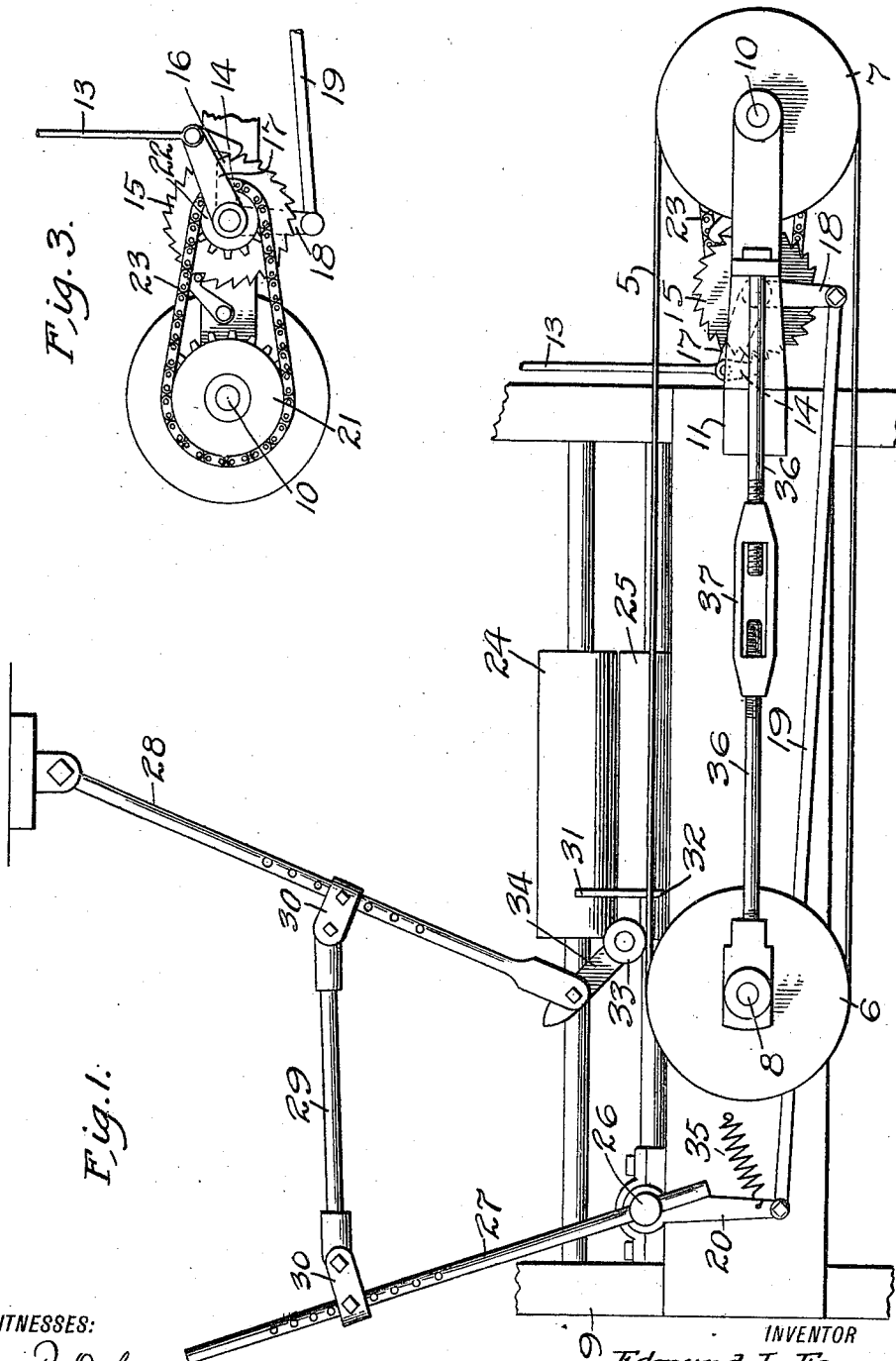


E. L. FEEMAN.
 COUNTER AND STACKER.
 APPLICATION FILED DEC. 28, 1909.

974,648.

Patented Nov. 1, 1910.

2 SHEETS—SHEET 1.



WITNESSES:
 James P. Duhamel,
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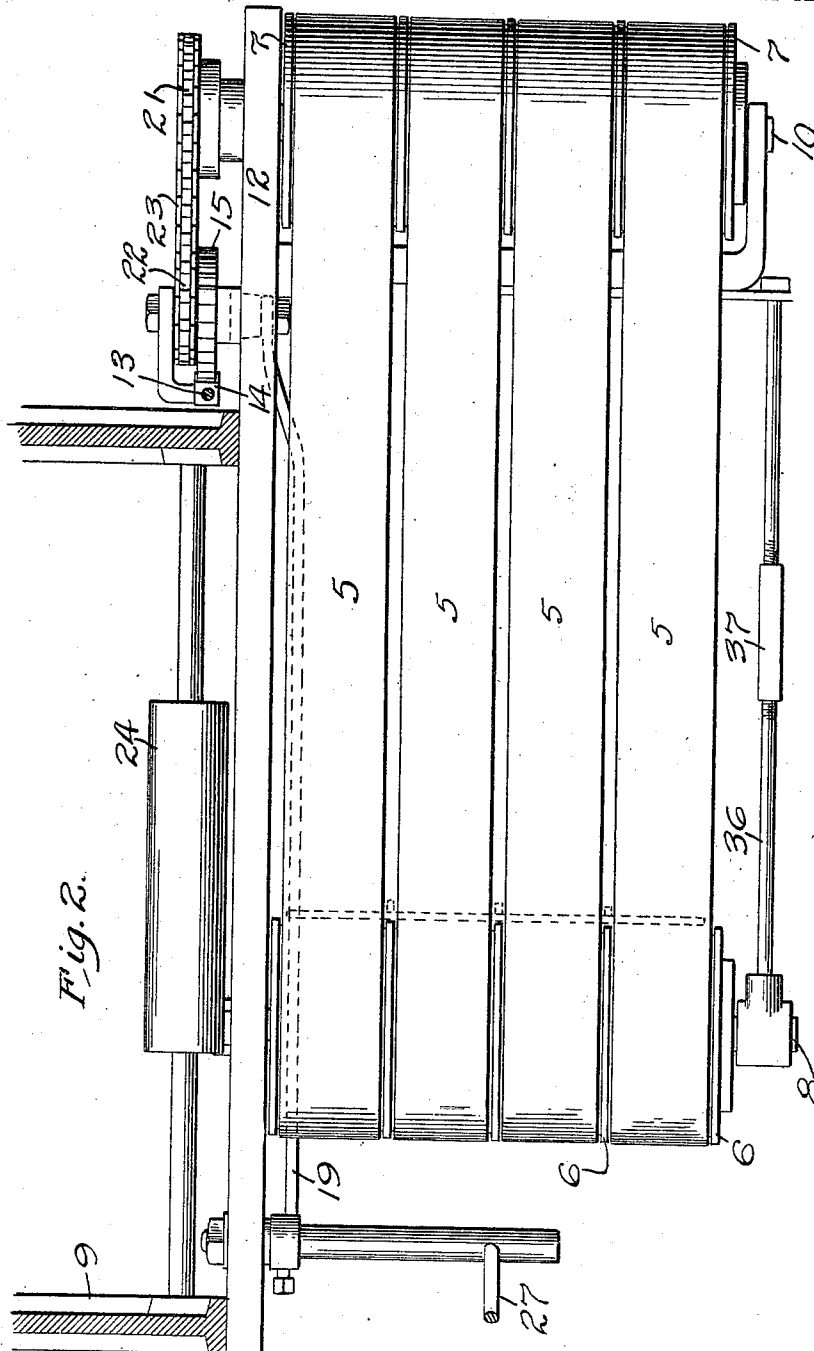
INVENTOR
 Edmund L. Feeman,
 BY
 Victor J. Evans,
 ATTORNEY

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UNITED STATES PATENT OFFICE.

EDMUND L. FEEMAN, OF NEW YORK, N. Y., ASSIGNOR TO JOHN DUNPHY, OF
NEW YORK, N. Y.

COUNTER AND STACKER.

974,648.

Specification of Letters Patent.

Patented Nov. 1, 1910.

Application filed December 28, 1909. Serial No. 535,247.

To all whom it may concern:

Be it known that I, EDMUND L. FEEMAN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Counters and Stackers, of which the following is a specification.

This invention relates to counters and stackers to be used in connection with certain machinery which delivers its products at one of its ends and the device is more especially adapted for the counting and stacking of envelops after they have been made by the ordinary envelop machine and delivered from the same.

The invention further consists of certain novel and simple details more fully described in the following specification, set forth in the claims and illustrated in the drawings, wherein:

Figure 1 is an end elevation of an envelop machine showing the improved stacker applied thereto. Fig. 2 is a plan view partly in section. Fig. 3 is a detail view of certain intermittent mechanism.

In the manufacture of envelops, cartons, boxes and many other similar articles, it has been necessary after the delivery of same from the machine manufacturing them to pick them out one by one and count them for delivery or for packing, this method has been laborious and tedious at the same time requiring the constant attention of an operator. In order to overcome this difficulty the present device is provided and consists of delivery belts 5 mounted on pulleys 6 and 7, the pulleys 6 being journaled on a stud 8 carried by the frame work 9 of the envelop machine while the pulleys 7 are mounted on a shaft 10 carried by a bracket 11 and an extension 12. As shown in Fig. 3 the shaft 10 is actuated by means of a rod 13 oscillated by any moving part of the envelop machine and carrying at its lower end a pawl 14 which with each movement of the rod 13 engages a different tooth of the ratchet wheel 15 to turn the same. This ratchet wheel 15 is shown as having twenty-five teeth all of the same size except the tooth 16 which is shorter than the rest and allows the pawl to move inward near enough to the axis to engage a lever 17 forming one of the arms of a bell crank lever pivoted on the axis of the wheel and

whose other arm 18 is connected by means of a rod 19 with an arm 20 journaled in the frame of the machine at its opposite side. As the wheel 15 is rotated by the pawl it also rotates the sprocket wheel 21 on the shaft 10 through the medium of the sprocket wheel 22 and chain 23 and by this means the belts 5 are intermittently moved as the machine operates. The envelops when completed are fed through the rollers 24 and 25 and on to the belts 5 and by which they are carried forward as the pulleys 7 rotate.

The stud 26 to which the arm 20 is attached, carries an upright arm 27 and pivoted to the upper rear end of the machine is a swinging rod 28 connected with the arm 27 by means of a link 29 which is connected with the arm and rod by means of the adjustable blocks 30. The lower end of the rod 28 carries a gathering and stacking board 31 having teeth 32 which project through the spaces between the belts and has at its rear side rollers 33 which partly support same and relieve the belts of any extra friction which the board 31 would otherwise cause. Connected with the board is also an arm 34 to which the fork or rod 28 is secured and the arm is long enough to extend beyond the fork and not pass through it but always retain the board in front of the rod. The arm 27 and rod 28 are provided with notches for the adjusting screws of the blocks 30 so that the throw of the lower end of the rod may be varied to cause the stacking board to travel a greater or less distance and while the forward movement of the arm holds the board to the belts the backward movement tilts the arm 34 down and causes the rollers to carry the board back and thus reduces the friction on the belt.

In operation, the rod 13 is continually reciprocated as before described by some moving part of the machine and the pawl intermittently rotates the wheel 15 and causes the belts with the envelops to move slowly. When, however, the pawl reaches the tooth 16, it is permitted to extend farther in toward the axis of the wheel and engage the end of lever 17 which it raises, as it does the teeth and in so doing it thrusts the rod 19 backward and rocks the arm 20 so that the arm 27 and rod 28 are put in motion and the stacking board 31 travels

over the belts in front of the rollers and stacking all the envelops on that part of the belts into a pile and then immediately returns to its normal position as shown in Fig. 1, leaving a space between the pile and the point where the envelops are being delivered. A spring 35 is provided to return the stacker to its normal position and the pile which has been made on the belts may be removed by the operator. The movement of the belts is so slow that by this means several piles of envelops or other articles may be stacked upon them as they move onward but it is obvious that the belts may be of such length as to accommodate any number of piles of envelops so that attention need not be given them for some time.

The stud 8 and the bracket 11 are connected and braced by the rods 36 which are adjusted by the turn buckle 37 and while the ratchet wheel 15 is shown as having twenty-five teeth, it is obvious that a wheel of any number of teeth may be provided to stack the number of articles that may be desired as they come from the machine.

It is obvious that the details of this invention may be otherwise arranged and modified without departing from the essential features above described.

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

1. In a stacker and counter, the combination with traveling belts, means for operating the belts intermittently, a stacking board traveling over the belts, an oscillating arm carrying the same, and means connected with the operating means to swing the stacker forward after a certain number of intermissions.

2. In a counter and stacker, the combination with the delivery rollers of a machine, of moving belts, pulleys carrying the same, means for giving the pulleys an intermittent movement, a stacking board on the belts before the rollers, a swinging arm carrying

the board, an oscillating lever actuating the arm, and means connecting the lever with the intermittent movement means to oscillate it at certain periods.

3. In a stacker and counter, the combination with the feed rollers of a machine, of traveling belts opposite the feed rollers, pulleys carrying the belts, means for giving the pulleys an intermittent movement, a bell crank lever connected with the intermittent movement means, a stacking board traveling on the belts opposite the rollers, and means interposed between the bell crank lever and the stacking board to operate the latter.

4. In a stacker and counter, the combination with the feed rollers, of traveling belts in front of same, pulleys carrying the belts, means for giving the pulleys an intermittent motion, a bell crank lever connected with and operated by the said means, a stacking board traveling over the belts opposite the rollers, an oscillating arm carrying the same, arms mounted on a stud, a link connecting one arm with the bell crank lever, and a link connecting the other arm with the oscillating arm of the stacking board.

5. In a stacker and counter, the combination with the delivery rollers of a producing machine, of a plurality of moving belts before the delivery rollers, pulleys carrying the belts, means for intermittently rotating the pulleys, a stacking board with teeth to fit between the belts, rollers carrying the stacking board, a rearwardly extending arm on the board, an oscillating lever connected with the arm and hung from the machine, rocking arms with links to operate the lever, and means for actuating the arms at certain intervals.

In testimony whereof I affix my signature in presence of two witnesses.

EDMUND L. FEEMAN.

Witnesses:

JOHN DUNPHY,
JAMES F. DUHAMEL.