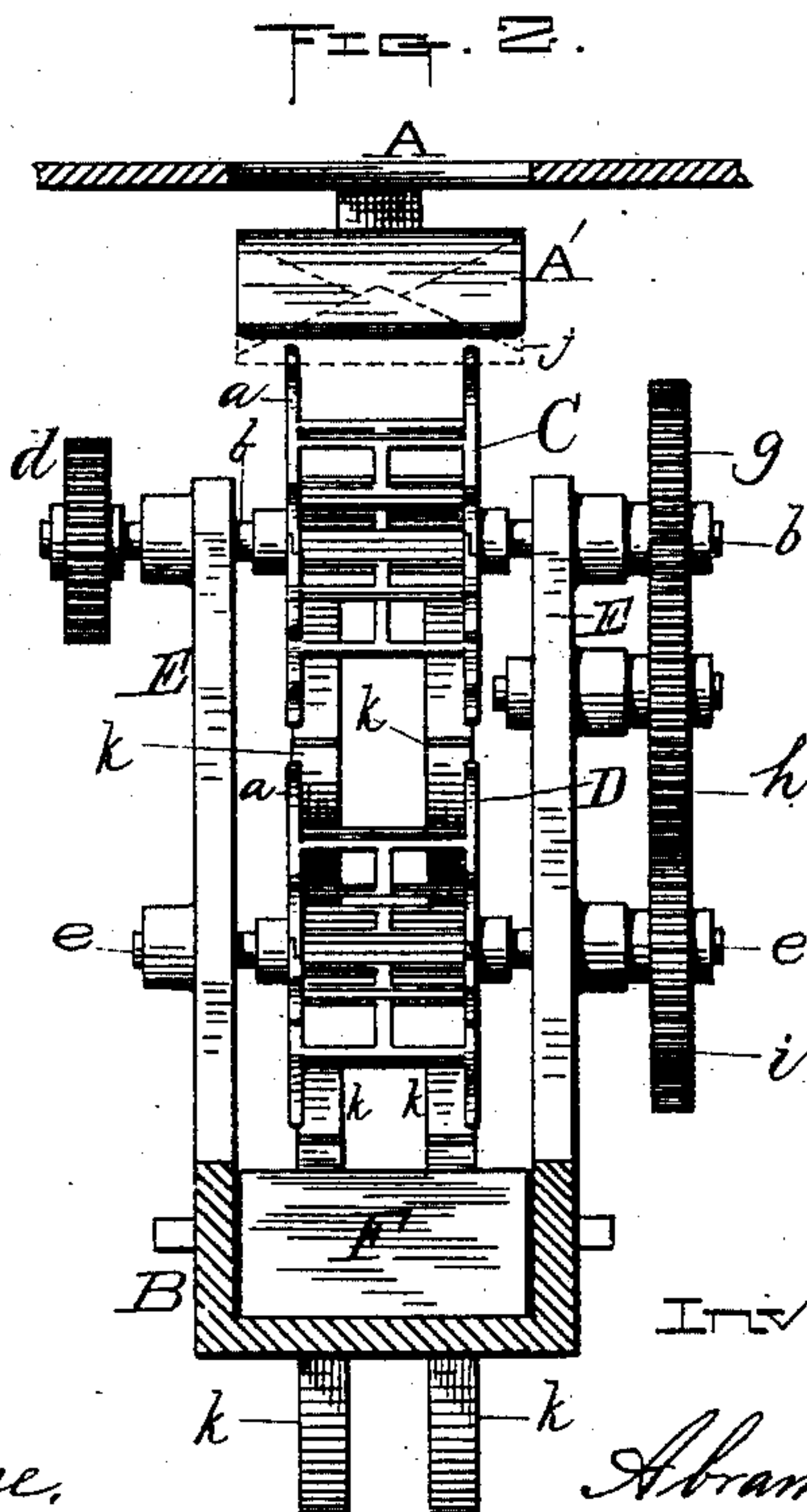
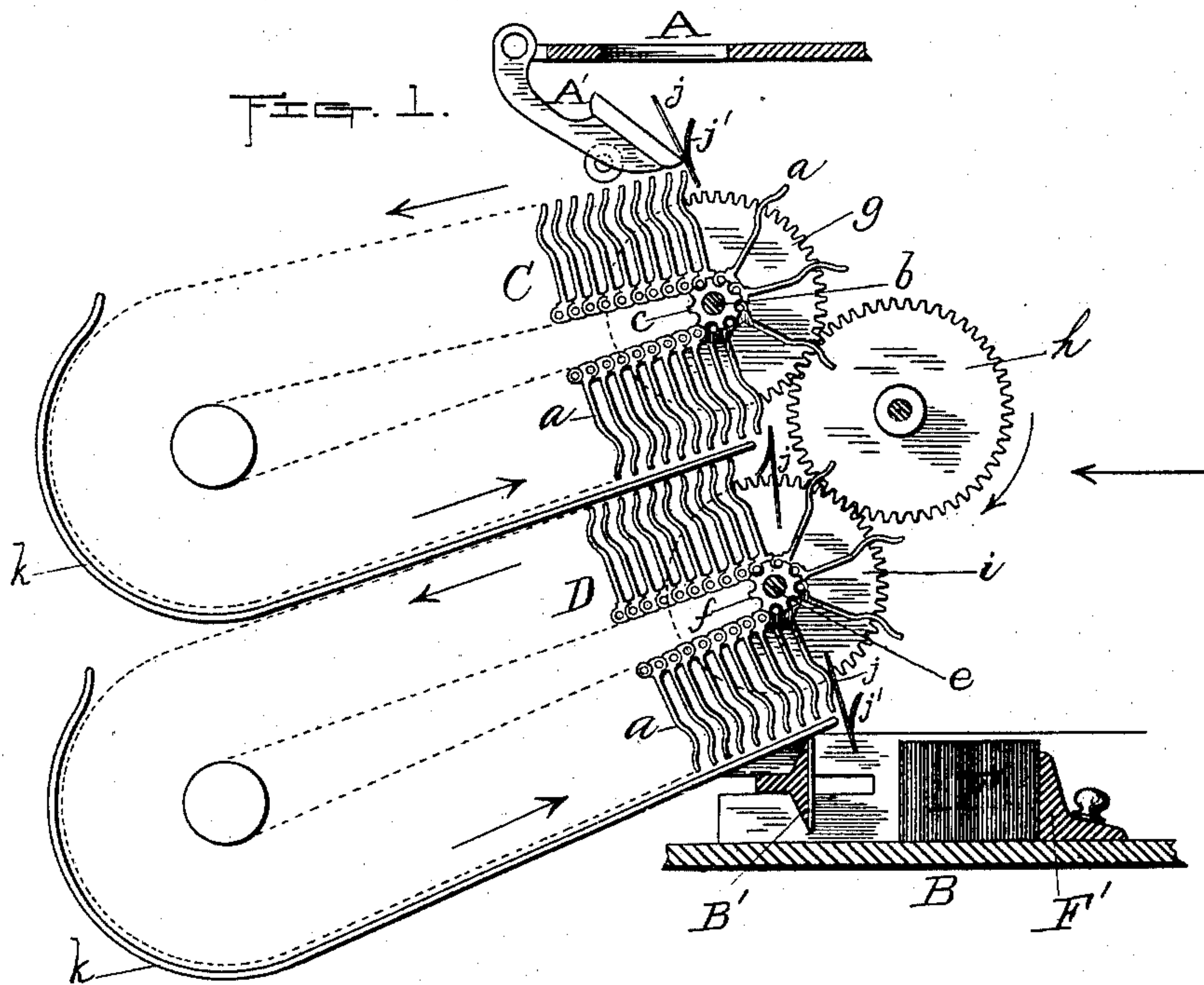


(No Model.)

A. A. RHEUTAN.
ENVELOPE MACHINE.

No. 370,969.

Patented Oct. 4, 1887.



WILSONSSSSS;

Walter B. Nourse.
Lucius W. Briggs.

Inventor;

Abram A. Reutan

By A. A. Barker. Atty.

UNITED STATES PATENT OFFICE.

ABRAM A. RHEUTAN, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO
WADE H. HILL, OF SAME PLACE.

ENVELOPE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 370,969, dated October 4, 1887.

Application filed March 31, 1887. Serial No. 233,209. (No model.)

To all whom it may concern:

Be it known that I, ABRAM A. RHEUTAN, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain
5 new and useful Improvements in Envelope-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and in which—
10

Figure 1 represents a vertical longitudinal section of so much of an envelope-machine as is necessary to illustrate my improvements thereon; and Fig. 2 is a vertical transverse section thereof, showing an end view of my said improvements, looking in the direction of the arrow at the right-hand side of Fig. 1.
15

My invention relates more especially to the drying-chain of an envelope-machine and the
20 delivery of the envelopes therefrom.

The object of my invention is to provide a more satisfactory means than heretofore of conveying the envelopes from the folding-box to the counting-box of said machine, the
25 envelopes being dried, as usual, during said transfer from one box to the other.

Said invention consists in arranging under the usual drying-chain a similar supplementary chain having arms like or similar to those
30 of said usual chain and operated in a similar manner, said supplementary chain being adapted to receive the envelopes as they are dropped out in an inverted position from the upper chain and discharge them, right side
35 up, into the counting-box, as hereinafter more fully specified.

To enable others skilled in the art to which my invention appertains to obtain a full and clear understanding thereof, I will now proceed to describe it more in detail.
40

Referring to the drawings, the part marked A represents the bottom of the folding-box, which is provided with the usual vertical opening to allow the envelopes to pass down through,
45 also being provided with the hinged folding-bed A'.

The part B represents a portion of the usual counting-box, and C part of an envelope-drying chain of ordinary construction, which is
50 driven so as to impart a slow intermittent rotary movement thereto in the usual well-known

way. Said drying chain is commonly made of sufficient length to properly dry the envelopes in making one circuit from the place where they are dropped in to the point at which they
55 are removed therefrom.

In most machines the envelopes are removed from the under side of the drying-chain in an inverted position—that is, with their seal-flaps at the top—and it is therefore necessary
60 to employ a special device or mechanism for turning said envelopes over from said inverted position into their proper upright positions, with their seal-flaps at the bottom and front side thereof.
65

The essential feature of my invention consists in substituting for the usual mechanism employed for pushing or drawing the envelopes from the chain a supplementary chain, D, arranged under the usual drying-chain, into
70 which the envelopes are dropped direct from said usual drying-chain, being arranged in position to catch the envelopes as they arrive at the proper point and drop down out of the latter, as is shown in Fig. 1 of the drawings.
75 Said supplementary chain D is provided, like the usual chain, C, with hinged radial fingers *a*, and is otherwise made and operated in a similar manner thereto.

Driving-power is imparted to the shaft *b*
80 and pinion *c* of chain C by means of a spur-gear or pulley, *d*, fastened to one end of said shaft and connected in practice with any suitable and convenient driving mechanism, said driving-power being in turn transmitted to the
85 shaft *e* and pinion *f* of chain D through the spur-gear *g*, fastened to the opposite end of shaft *b* from the gear or pulley *d*, intermediate gear, *h*, fitted to turn on a bearing projecting out from frame E, and gear *i*, fastened to the
90 outer end of shaft *e*. The envelopes *j* are delivered from the folding-box with their seal or front flaps *j'* at the bottom, and are thus deposited in the top chain, C. They are then carried around by said chain in the direction
95 shown by the arrows in Fig. 1 until arriving about under the driving-pinion *c* thereof, when they are allowed to drop out into the top of the supplementary chain D in a reverse or inverted position from that in which they were
100 delivered into the top of the chain C.

It is desirable, as is well known, to deposit

said envelopes in the counter-box with their seal-flaps at the bottom and front side, as originally deposited in the top of chain C. Therefore, in order to turn the same over and accomplish said result, I have arranged the chain D to be turned, by means of the gear-connections hereinbefore described, in the same direction as chain C, thus carrying the envelopes around and turning them over into their original upright positions, in which position they are delivered from the bottom of the chain into the usual counting-box, as shown in Fig. 1. They are prevented from falling out of the chains while passing around the outer ends and under sides thereof by means of the usual stationary guards, *k k*, extending around said portions of the chains just outside of the ends of fingers *a*. Said fingers, it will be understood, extend entirely around the chains in practice; but it is considered necessary in this instance to illustrate only a portion thereof to make clear the nature and purpose of my improvements.

By the employment of a supplementary drying and delivering chain, as previously described and shown, I am enabled to increase the drying capacity of an envelope-machine, and with the usual length of chain divided between two separate chains a large saving in floor-surface is effected, thus admitting of a larger number of machines being employed in a given space than by the use of one long chain, as ordinarily. The envelopes, as fast as depos-

ited into the counting-box, are in practice pushed forward by the pusher-plate *B'* in the usual way, and as they are thus pushed forward and counted into bunches are held in position by the sliding weight *F'*. The counting mechanism constituting no part of my invention, it is unnecessary to show or describe the same.

By the application of my invention to practice it is obvious that the operation of conveying the envelopes from the folding-box to the counting-box or other receiver is performed in a simple, perfect, and expeditious manner.

Having described my said invention, what I claim therein as new, and desire to secure by Letters Patent, is—

In an envelope-machine, the drying-chain thereof, provided with suitable envelope-holding guards, in combination with a supplementary drying and delivering chain arranged to operate in a similar manner to the usual chain, and adapted to receive the envelopes from said chain into the top side thereof in the operation of conveying them to the receiver, turn them over, and deposit them into said receiver, the aforesaid transfer at the same time serving to complete the drying operation, substantially as shown and specified.

ABRAM A. RHEUTAN.

Witnesses:

ALBERT A. BARKER,
LUCIUS W. BRIGGS.