

(No Model.)

2 Sheets—Sheet 1.

E. RAU.

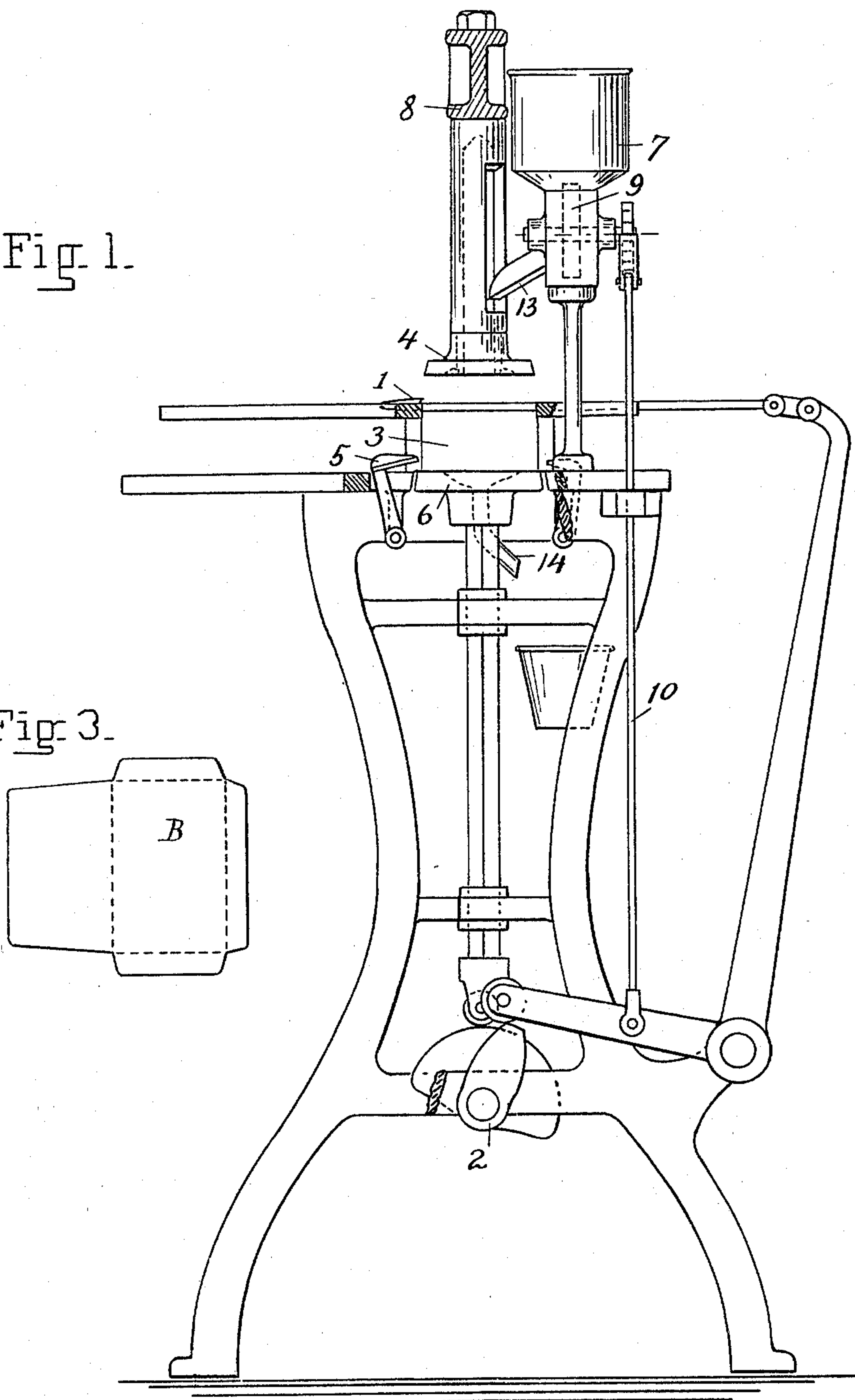
MACHINE FOR PACKAGING SEEDS IN ENVELOPES.

No. 518,427.

Patented Apr. 17, 1894.

Fig 1.

Fig 3.



Witnesses:

Emil Sklenka
John J. Mullen

Inventor,

Emanuel Rau,

by *J. W. Balch*
Attorney.

(No Model.)

2 Sheets—Sheet 2.

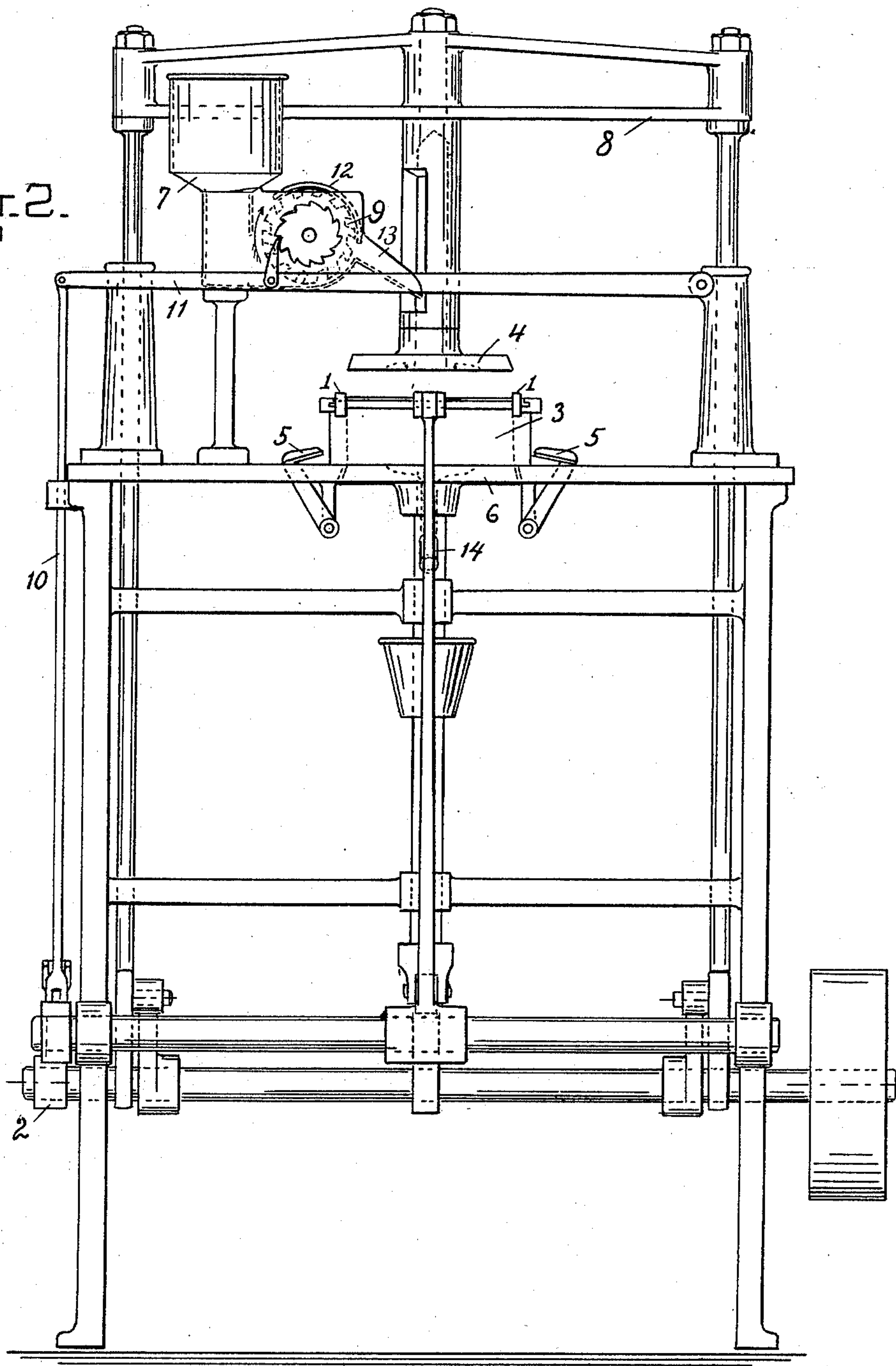
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MACHINE FOR PACKAGING SEEDS IN ENVELOPES.

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Fig. 2.



Witnesses:

Emil Skonka
John J. Muller

Inventor,

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UNITED STATES PATENT OFFICE.

EMANUEL RAU, OF BROOKLYN, NEW YORK.

MACHINE FOR PACKAGING SEEDS IN ENVELOPES.

SPECIFICATION forming part of Letters Patent No. 518,427, dated April 17, 1894.

Application filed January 9, 1894. Serial No. 496,248. (No model.)

To all whom it may concern:

Be it known that I, EMANUEL RAU, a citizen of the United States of America, residing at Brooklyn, Kings county, New York, have
5 invented certain new and useful Improvements in Machines for Packaging Seeds in Envelopes, of which the following is a specification.

My invention is constructed to operate in
10 conjunction with mechanism of the customary type for forming envelope blanks into envelopes, and is so made that it may be readily applied to such machines with but slight alteration of them. This it does by
15 depositing the quantity of seeds required to be packaged in each envelope, on each blank as it is brought to the point where its flaps are folded over and sealed. It is intended particularly for flower seeds. These are sold
20 in minute quantities, but the envelopes need to be of considerable size compared with the amount of seeds inclosed, since it is customary to print on them illustrations of the flowers grown from the seeds and other explanatory matter. On this account it is possible to deposit the requisite quantity of seeds to be inclosed on the center of each envelope as it is partially formed, and keep the corners and parts underlying the gummed edges
30 free from underlying seeds so that the corners can be properly creased and the seams pressed down.

The accompanying two sheets of drawings show my improvement together with the
35 operating elements of an envelope machine.

Figure 1 is a side view in which the portion to the right is in elevation and the portion to the left is broken away so as to show the folding box in section. Fig. 2 is a rear
40 elevation, and Fig. 3 shows an envelope blank.

The envelope forming mechanism is of the customary type, and preferably provided with all the automatic devices used on such machines. It was not thought necessary, however, that all of these should be illustrated, and accordingly the devices for gumming the blanks and for automatically operating the flap holders have been omitted in order that the elements which co-operate more directly
50 with my improvements may be more clearly shown.

Conveyers 1 actuated from a cam 2 receive

the gummed blank and feed it between a square opening made by the sides of the folding box 3 and the plunger 4. The flaps of
55 the envelope blanks are folded at right angles between the edges of the square opening and the plunger, preferably by lowering the latter into the folding box. The plunger is next withdrawn leaving the partially folded blank
60 in the folding box, and the four flap folders 5 are advanced into the box and fold over and seal the flaps. The foundation 6 of the folding box is next lowered so that the envelope can be taken out at the bottom. These
65 are the customary envelope-machine elements illustrated in combination with the herein described improvements.

A seed receptacle 7 is supported preferably from the table of the machine, but not necessarily, since it might instead have been
70 mounted on the cross bar 8 carrying the plunger. In one side of the seed receptacle, which is trough shaped, is a wheel 9. This wheel has pockets in its periphery, each of
75 which will hold the right quantity of seeds for one envelope. It is revolved in the direction of the arrow by means of a pawl and ratchet, operated from the conveyer cam through the rod 10 and lever 11. A fender
80 12 of sheet rubber covers about one third of the periphery of the wheel, and serves, as the wheel is revolved, first, to scrape off and level the seeds in the pockets, and second, to retain the seeds in the pockets until they successively come opposite the inclined conduit
85 13 into which the seeds are discharged. The lower end of this conduit projects into a slot in a vertical conduit from which the seeds pass through the plunger to the envelope
90 blank. It will be obvious that by terminating the end of the inclined conduit lower down, the seeds could be fed in under the plunger and a passageway through it for them dispensed with. In fact the seeds could
95 be discharged through a side of the folding box, in which case the mechanism for feeding them should be timed so that they will not reach the folding box until the plunger has forced in the blank and partly returned. 100
The construction shown rotates the wheel 9 and releases the seeds as the conveyers 1 are completing their stroke, but as some time is required for the seeds to fall through the con-

duits, they will not ordinarily reach the envelope blank until all the flaps are partially folded and the blank is near or has reached the bottom of the folding box. It will therefore be seen that the precise time of feeding in the seeds relative to the folding of the flaps is immaterial. It is even less important than above indicated, for the three narrow flaps of the blank may, if desired, be first completely folded down and the seeds deposited in the partially folded envelope.

It occasionally happens as an envelope machine is operating, that a blank fails to be fed into the folding box. As in such an event the seeds would be deposited as usual in the folding box, a conduit 14 is made through the foundation, for their removal.

The foregoing mechanism is also applicable to the packaging of substances analogous to seeds, as for example medicines in powdered form, and consequently in the following claims while specifying seed receptacles, conduits, &c., I do not mean to restrict their use merely to seeds.

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

1. In a machine for packaging seeds in envelopes the combination with a plunger on which the envelope flaps are partially folded, of a folding box, a seed receptacle, a discharge therefrom into the folding box, means for feeding seeds, means for folding envelope blanks and means for closing down and sealing all the flaps, substantially as described.

2. In a machine for packaging seeds in envelopes the combination with a plunger on which the envelope flaps are partially folded, of a seed receptacle, a conduit therefrom

through the plunger, means for feeding seeds, means for folding envelope blanks and means for closing down and sealing all the flaps, substantially as described.

3. In a machine for packaging seeds in envelopes the combination with a plunger on which the envelope flaps are partially folded, of a folding box, a seed receptacle, a discharge therefrom into the folding box, a wheel with pockets for seeds, means for rotating said wheel, means for folding envelope blanks, and means for closing down and sealing all the flaps, substantially as described.

4. In a machine for packaging seeds in envelopes the combination with a plunger on which the envelope flaps are partially folded, of a folding box, a seed receptacle, a discharge therefrom into the folding box, a wheel with pockets for seeds, conveyers for the envelope blanks, a conveyer cam, means actuated by said cam for rotating said wheel and reciprocating said conveyers, means for folding envelope blanks, and means for closing down and sealing all the flaps, substantially as described.

5. In a machine for packaging seeds in envelopes the combination with a plunger on which the envelope flaps are partially folded, of a folding box, a seed receptacle, a discharge therefrom into the folding box, a conduit from the foundation of said folding box, means for feeding seeds, means for folding envelope blanks, and means for closing down and sealing all the flaps, substantially as described.

EMANUEL RAU.

In presence of—

EMIL SKLENKA,
JOHN J. MULLEN.