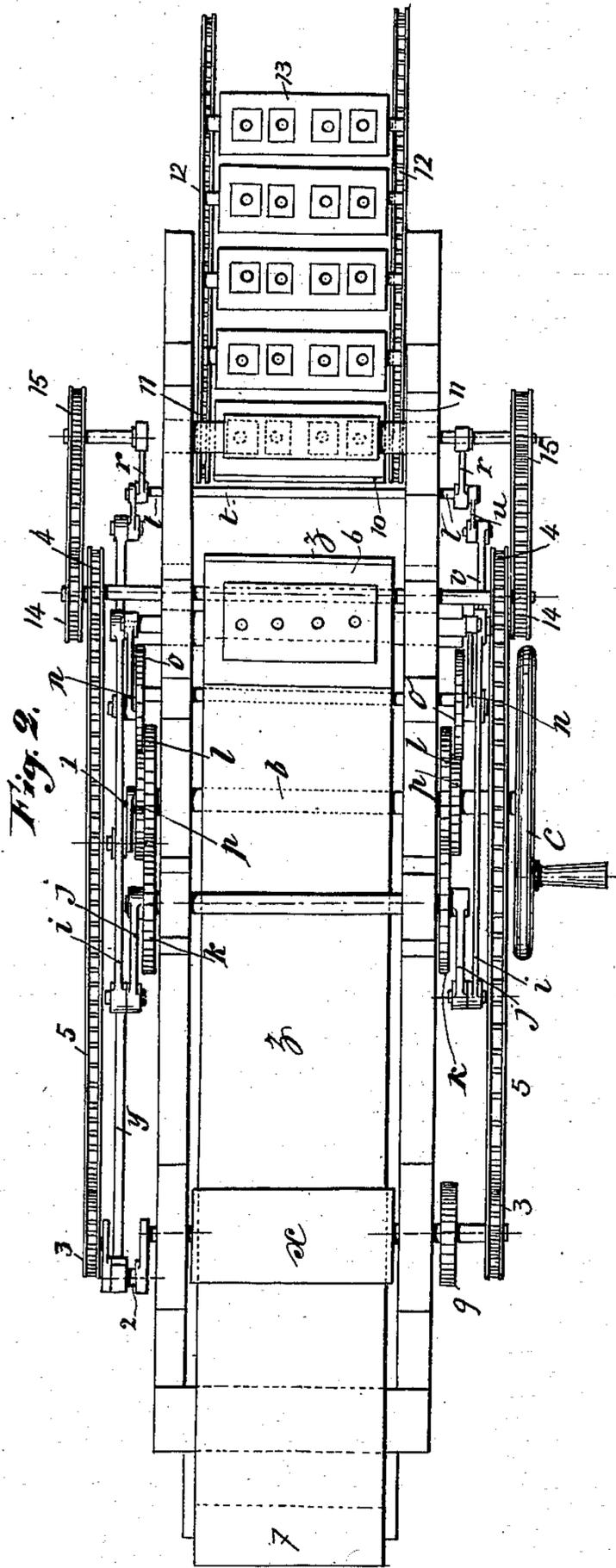


A. POUÉY.
BISCUIT MACHINE.

(Application filed May 3, 1899.)

(No Model.)

3 Sheets—Sheet 2.



Witnesses:

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ALEXANDRE POUHEY, OF MARSEILLES, FRANCE.

BISCUIT-MACHINE.

SPECIFICATION forming part of Letters Patent No. 651,885, dated June 19, 1900.

Application filed May 3, 1899. Serial No. 715,397. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDRE POUHEY, a citizen of the Republic of France, residing at Marseilles, France, have invented certain
5 new and useful Improvements in Biscuit-Machines, of which the following is a specification.

The object of my present invention is to provide a machine for cutting biscuits and ar-
10 ranging same upon plates or grates before inserting them into the oven.

The improvements consist in the features of construction and combination of parts, fully described and claimed hereinafter.

15 In order that this my invention may be the more readily understood and carried into effect or practice, reference is hereby made to the accompanying drawings, in which—

20 Figure 1 is a side elevation of the improved machine. Fig. 2 is a plan view, and Fig. 3 an end view, of same. Fig. 4 is a cross-section on line X Y of Fig. 1. Fig. 5 is a cross-section on line U V of Fig. 1.

25 Like letters and numerals refer to like parts throughout all the figures.

The improved machine is composed of a frame *a*, on which is mounted the main shaft *b*, actuated by means of a crank or other mechanical device *c*. On said frame is mounted
30 or arranged a guide *d*, provided with three slots *e f g*, *e* being a horizontal slot and *f g* vertical slots. In said horizontal slot *e* works a carriage-mold *h*, actuated by a connecting rod or link *i*, pivotally secured to crank-arm
35 *j*, made integral with toothed wheel *k*, meshing with wheel *l*, mounted on the main shaft *b*. In said slot *f* works a hollow stamper *m*, actuated by link *n*, eccentrically connected with toothed wheel *o*, meshing with wheel *p*,
40 mounted on the main shaft *b*. In said slot *g* works a solid stamper *q*, actuated by link *r*, pivotally secured to crank-arm *s*, keyed on shaft *t*, carrying a second crank-arm *u*, connected with link *v*, the other end of which is
45 eccentrically connected with toothed wheel *o* at the same point as link *n*.

50 At the fore part of the machine I arrange two cylinders *w* and *x*, the one above the other, between which moves an endless band *z*, made of cloth or other suitable material. Said cylinder *w* is actuated by a link *y*, piv-

otally connected with a crank-arm 1, keyed on one end of the main shaft *b*. Said link *y* is connected with a double crank-arm 2, keyed, on the one hand, upon the shaft of cylinder
55 *w* and, on the other hand, on the shaft of a sprocket-wheel 3, transmitting movement from cylinder *w* to another sprocket-wheel 4 by means of a suitable chain 5, said sprocket-wheel 4 being keyed on the shaft of cylinder
60 6, around which extends the feed or endless band *z* to return back to the loose cylinder 7. Said cylinder *w* actuates cylinder *x* through the agency of gear-wheels 8 and 9.

65 At the rear of the machine I provide a cylinder 10, carrying at its end a sprocket-wheel 11, around which extends a chain 12, carrying plates or grates 13, serving to receive the biscuits after the cutting operation and to convey them into the oven. Said cylinder 10
70 is actuated by means of a chain extending around wheels 14 and 15, keyed on the ends of the shafts of cylinders 10 and 6, so that the movement of the conveying-chain is integral with that of the feed-band and may be con-
75 trolled or regulated in proportion with the movement of said feed-band, and vice versa.

80 It will be seen that all transmission parts of the machine are repeated on each side thereof, except link *y*, crank-arms 1 and 2, and wheels 8 and 9.

The carriage-mold is composed of a sliding frame 16 and a block 17, on the under side of which are secured cutters or punches the bottoms of which are provided with dies 17^a
85 or the like, serving to make the desired impression (trade-marks, &c.) on the biscuits. Between said frame 16 and block 17 I arrange springs 18, serving to lift the block as the same is moved between the above-named
90 stampers. Said block 17 is furthermore provided with several openings receiving plungers or equivalents 19, normally held in lifted position by the action of springs 20.

95 The operation of the improved machine is as follows: The pastry is brought between the cylinders *w* and *x* by the feed-band *z*, where said pastry is brought to the desired thickness and then conveyed under the mold
100 *h* above cylinder 6. At this moment the stamper *m* will be depressed to press upon the edges of block 17, whereby the latter is

forced to merge into the pastry, which is cut and marked and from which said block removes the biscuits as soon as stamper *m* is raised by reason of the action of said springs 5 18, which raise the block and sliding frame. As the mold is moved under stamper *q* the latter presses with its under side upon the plungers 19, and thus forces the biscuits to leave the cutters or punches. The biscuits 10 are received upon the plates or grates 13 and conveyed into the oven by the chains 12.

It will be seen that the endless band *z* extends only under the first stamper at that end of the machine or, in other words, to the point 15 where the pastry is cut into biscuit and the latter removed, and that the plate-conveyer 13 does not extend beyond the second stamper or to the point where the biscuits fall from the punches. Thus there is an open space be- 20 tween the two conveying parts—that is, between the rollers 6 and 10—which space serves for the dropping from the endless belt of the waste pastry from the cutting operations.

Having fully described my invention, what 25 I claim, and desire to secure by Letters Patent, is—

1. A machine of the class described, comprising a movable mold, cutters or punches and plungers therein, two stampers one of 30 which presses on the mold to cut the pastry, the second stamper pressing on the plungers thereof to remove the biscuit therefrom, means for bringing the pastry under the mold, devices for conveying the cut biscuit to

an oven, and means for actuating the various 35 parts.

2. A machine of the class described, comprising a movable mold, suitable mechanism for reciprocating said mold, two stampers, suitable mechanism for reciprocating said 40 stampers, an endless feed-band for bringing pastry to be cut under the mold, suitable mechanism for mechanically actuating said feed-band; plates carried by chains for re- 45 moving the cut biscuits, suitable devices for actuating said plates and chains, and a main shaft for actuating said mechanism and devices, substantially as set forth.

3. A machine of the class described, comprising a movable mold, a sliding frame serv- 50 ing to convey or carry said mold, suitable mechanism for actuating said sliding frame, a movable block yieldingly arranged on said frame, cutters or punches on the under side of said block, dies on the bottom of said cut- 55 ters or punches, plungers arranged within openings in said block and normally held in lifted position by means of springs, means for successively depressing said block and plun- 60 gers, devices for bringing the pastry to be under the mold and removing the cut biscuits, mechanism for actuating the various devices, and a main shaft for actuating all the parts, substantially as set forth.

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Witnesses:

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