

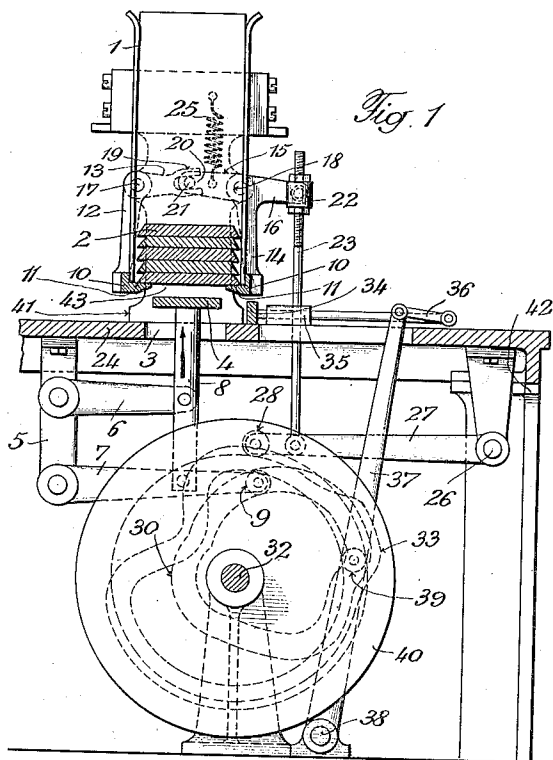
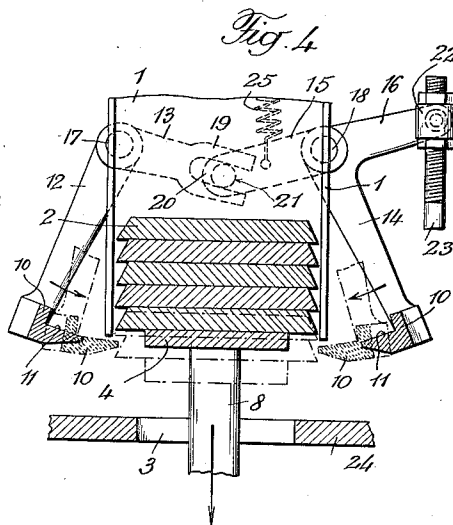
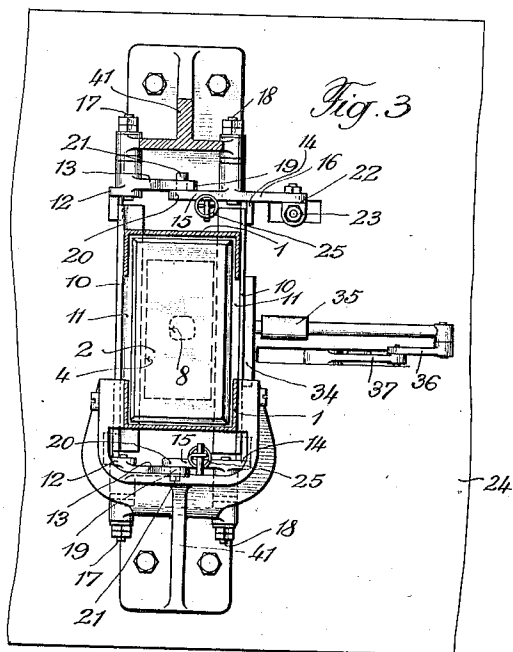
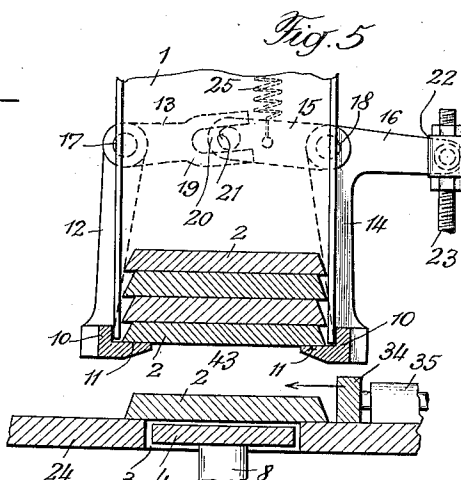
R. LEUMANN.
 DEVICE FOR FEEDING TABLETS OF CHOCOLATE AND SIMILAR ARTICLES TO TABLES OF
 WRAPPING MACHINES.

APPLICATION FILED JUNE 4, 1919.

Patented Feb. 10, 1920.

2 SHEETS—SHEET 1.

1,330,639.



Inventor:
 Richard Leumann,
 By *Henry Orth*
 atty.

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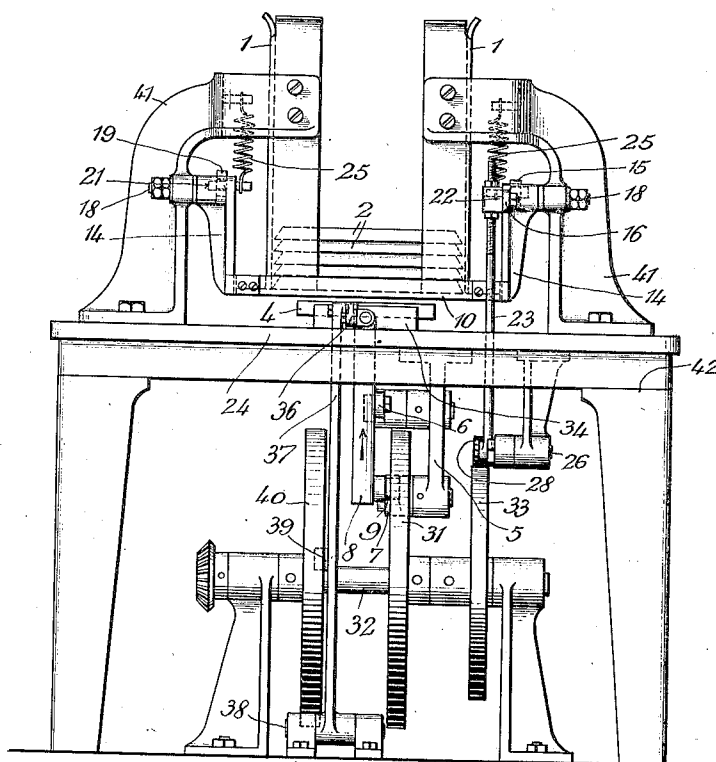
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2 SHEETS—SHEET 2.

Fig. 2



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UNITED STATES PATENT OFFICE.

RICHARD LEUMANN, OF CHAILLY SUR LAUSANNE, SWITZERLAND.

DEVICE FOR FEEDING TABLETS OF CHOCOLATE AND SIMILAR ARTICLES TO TABLES OF WRAPPING-MACHINES.

1,330,639.

Specification of Letters Patent.

Patented Feb. 10, 1920.

Application filed June 4, 1919. Serial No. 301,750.

To all whom it may concern:

Be it known that I, RICHARD LEUMANN, a citizen of the Republic of Switzerland, residing at Villa La Loex, Chailly sur Lausanne, Switzerland, have invented certain new and useful Improvements in Devices for Feeding Tablets of Chocolate and Similar Articles to Tables of Wrapping-Machines; and I do hereby declare the following to be a clear, full, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in devices for feeding tablets of chocolate and similar articles to the working table of a wrapping-machine of the kind in which a vertically movable carrier conveys the lowermost tablet of a pile of tablets to the working table of the machine. The characteristic feature of the improved feed device consists in that the carrier coöperates with an adjustable two-part supporting member for the pile, said member being so designed and actuated that its two parts lie normally against two opposite edges of the lowermost tablet of the pile to be supported. In this position of the two parts of the supporting member an aperture is provided between them through which is adapted to pass the movable carrier. The supporting member releases the pile of tablets as soon as the carrier moved through said aperture is brought into a position in which it is caused to support the pile, said supporting member acting then again as a support for the pile minus a tablet at the moment at which the carrier has been moved downwardly from its uppermost position by an amount corresponding to the thickness of a tablet.

The invention consists also in the particular construction, arrangements and combination of parts of the feed device, as will be hereinafter fully set forth and pointed out in the claims, reference being had to the accompanying drawings showing by way of example an embodiment of the invention. In these drawings:

Figure 1 is a vertical cross-section through

the feed device and the table of the wrapping-machine, the parts of this machine not necessary for the understanding of the invention being omitted.

Fig. 2 is a side view and

Fig. 3 a plan view of the feed device.

Figs. 4 and 5 are fragmentary vertical cross-sections of the feed device, drawn on an enlarged scale and illustrating the members of the device in different working positions.

Referring to the drawings, 1 denotes stationary, frame-like guides for the tablets 2 of chocolate arranged in said guides one upon another so that they form a pile. The guides 1 are fixed to supports 41 mounted in a stationary manner on the frame 42 of the machine. 24 designates the working table of the wrapping-machine provided with an opening 3 through which is adapted to pass the carrier 4 having the shape of a plate. The latter is reciprocated in a vertical direction by a lever-parallelogram 5, 6, 7, 8 and a roller 9 running in a cam-groove 30 of a cam-disk 31. The latter is fixed to the main driving shaft 32. The size of the opening 3 is at least in one direction smaller than the corresponding dimension of a tablet 2. Beneath two oppositely arranged lower edges of the guides 1, 1 are arranged two jaws 10 extending over the whole length of the tablets 2 and provided with surfaces 11 for supporting the pile of tablets. One of said jaws 10 connects two ends of a pair of double armed levers 12, 13, while the second jaw 10 connects two ends of a pair of levers, one of which has two arms 14, 15, while the other one has three arms 14, 15, 16. The levers 12, 13 are pivotally mounted on stationary bolts 17, while the levers 14, 15 and 14, 15, 16 are pivotally mounted on bolts 18. An opening 43 is provided between the jaws 10, 10 through which the plate 4 is adapted to pass. The ends 19, 20 of the arms 13 and 15 respectively of the levers referred to are interlinked the ends 19 of the lever-arms 13 being fork-shaped and each of them surrounding a pin 21 provided at one end of each arm 15. The end 22 of the lever arm 16 is connected to a rod 23, while each arm 15 is acted upon by a tension spring 25. The rod 23 is piv-

totally connected to a lever 27 adapted to rock about a stationary shaft 26. The lever 27 carries at its free end a roller 28 cooperating with a cam 33 fixed to the driving shaft 32.

34 designates a piston movably mounted in a stationary guide 35. To the piston 34 is connected a short rod 36 which in its turn is connected to a lever 37 pivotally mounted on a stationary shaft 38. The lever 37 carries a roller 39 running in a cam-groove of a cam-disk 40 fixed to the driving shaft 32. When the latter is rotated, the cam-disk 40 causes said piston 34 to reciprocate in its axial direction.

The operation of the described improved feed device is as follows:

Upon a rotation of the driving shaft 32, the cam-disk 31 cooperating with the roller 9 causes an upward movement of the plate 4, the latter being moved at first through the opening 43 provided between the jaws 10 and then forced against the lowermost tablet 2 of the pile, whereupon the plate 4 together with the whole pile resting now on this plate is moved upwardly a small amount, so that the pile is moved away from the surfaces 11. The roller 28 is now acted upon by the cam-disk 33 causing the jaws 10 to move apart and the lowermost tablet of the pile resting on the plate 4 is then moved past said jaws 10 at the beginning of the downward stroke of the plate 4. When the latter has been moved downwardly to an amount corresponding to the thickness of a tablet 2, the rod 23 operatively connected to the roller 28 cooperating with the cam-disk 33 causes said jaws 10 to rock inwardly as the springs 25 have the tendency to press the roller 28 downwardly. In consequence of said inward rocking movement imparted to the jaws 10, the supporting surfaces 11 of the latter are moved beneath the edges of the lowest but one tablet 2 of the pile, in which position they act again as supports for the whole pile (see Fig. 4) as soon as the lowermost tablet resting on the carrier plate 4—which conveys it to the table 4 of the wrapping-machine (see Fig. 5)—has been moved downwardly to an amount corresponding to the thickness of a tablet.

The tablet of chocolate is now conveyed by the plate 4 onto the table 24 where it assumes the position illustrated in Fig. 5. From this position it is pushed in the further course of the working cycle of the device away from the passage 3 and into a suitable wrapping mechanism (not shown on the drawings because not pertaining to the present invention) by the piston 24 operatively connected to the cam-disk 40.

The feed device hereinbefore described presents the material advantages that the transport of the tablets of chocolate is effected from their piled up position into the

position in which they rest loosely on the table 24 without producing any friction between the single tablets and between the latter and the members of the device coming in contact therewith.

What I claim now as my invention is:

1. A device for feeding tablets of goods to the table of a wrapping-machine, comprising means adapted to take up a pile of tablets, a carrier arranged beneath said pile, means for reciprocating said carrier in a vertical direction in order to convey a tablet from said pile onto the table of the wrapping-machine, a two-part supporting member normally carrying said pile, and means for moving the two parts of said member relatively to one another, said carrier being adapted to be moved through an opening confined by the two parts of said member against said pile to move the latter clear off the supporting member, the two parts of the latter being then moved apart and the pile being then supported by said carrier until the latter has been moved downwardly from its uppermost position by an amount corresponding to the thickness of a tablet, whereupon the pile minus its lowermost tablet is brought to rest again on said two-part member while said lowermost tablet is transported by the carrier in the course of its downward movement onto the table of the wrapping-machine.

2. A device for feeding tablets of goods to the table of a wrapping-machine, comprising means adapted to take up a pile of tablets, a carrier arranged beneath said pile, means for reciprocating said carrier in a vertical direction in order to convey a tablet from said pile onto the table of the wrapping-machine, a supporting member for the pile comprising two pivotally mounted jaws normally resting against two opposite edges of the lowermost tablet of the pile, and means for moving said jaws apart and toward one another, said carrier being adapted to be moved through an opening confined by the two pivotally mounted jaws against said pile to move the latter clear off said jaws, the latter being then moved apart and the pile being then supported by said carrier until the latter has been moved downwardly from its uppermost position by an amount corresponding to the thickness of a tablet, whereupon the pile minus its lowermost tablet is brought to rest again on said jaws while said lowermost tablet is transported by the carrier in the course of its downward movement onto the table of the wrapping-machine.

3. A device for feeding tablets of goods to the table of a wrapping-machine, comprising stationary means adapted to take up a pile of tablets, a plate arranged beneath said pile, means comprising a lever-parallelogram for reciprocating said plate in a

vertical direction in order to convey a tablet from said pile onto the table of the wrapping-machine, a two-part supporting member normally carrying said pile, and means
5 for moving the two parts of said member relatively to one another, said plate being adapted to be moved through an opening confined by the two parts of said member against said pile to move the latter clear off
10 the supporting member, the two parts of the latter being then moved apart and the pile being then supported by said plate until the latter has been moved downwardly from its uppermost position by an amount corresponding to the thickness of a tablet,
15 whereupon the pile minus its lowermost tablet is brought to rest again on said two-part member while said lowermost tablet is transported by the plate in the course of its

downward movement onto the table of the 20 wrapping-machine.

4. A tablet feeding mechanism comprising means for holding a plurality of superimposed tablets, means for supporting the tablets in the holder, an auxiliary support 25 and carrier, means for reciprocating the latter between the supporting means, and means for withdrawing the supporting means from the tablets during a period of movement of the carrier, whereby one of the 30 tablets is released from the holder.

In testimony that I claim the foregoing as my invention, I have signed my name.

RICHARD LEUMANN.

Witnesses:

I. LAM,
E. GIDDESS.