Aug. 27, 1929. J. P. ALDRICH ET AL 1,726,419

ARTICLE FEEDING MECHANISM

Original Filed Nov. 22, 1923 2 Sheets-Sheet 1

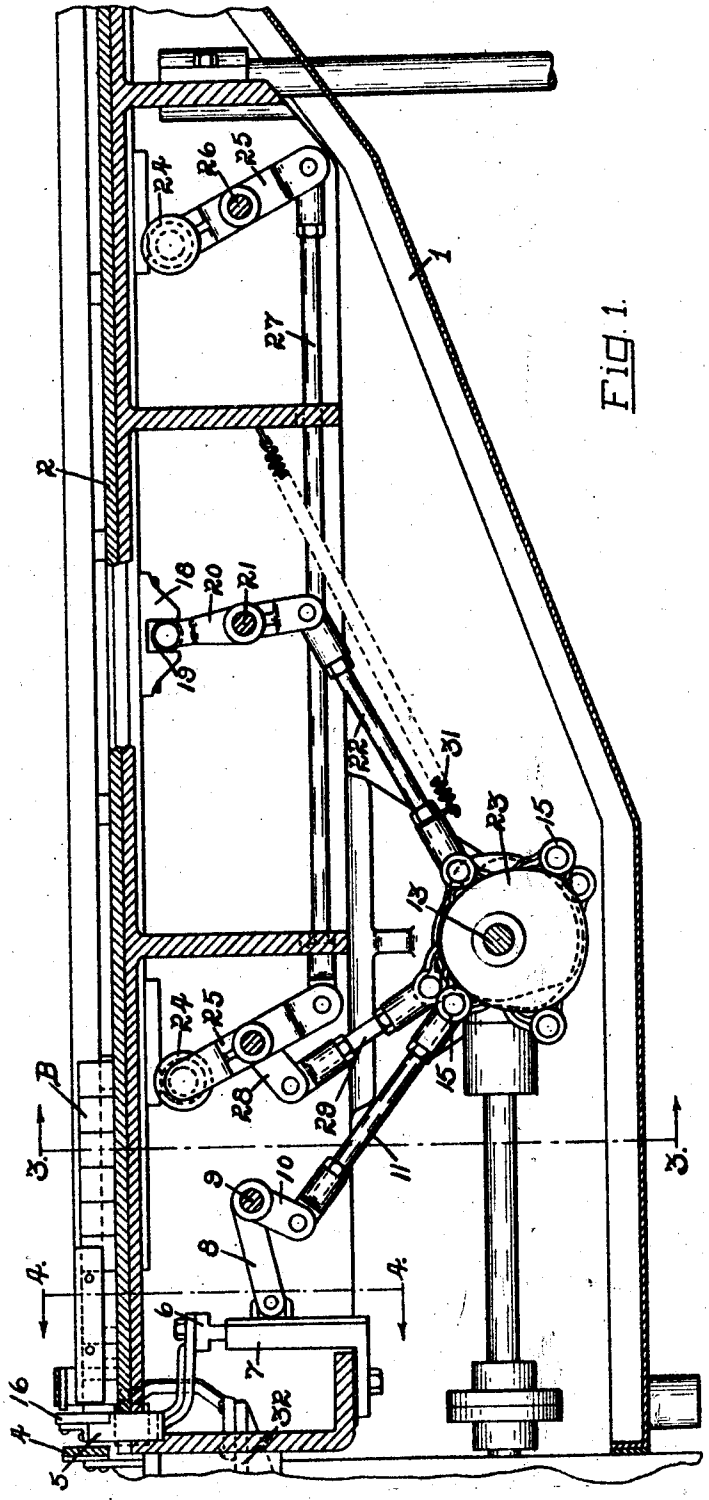


Fig. 1.

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Fig. 2.

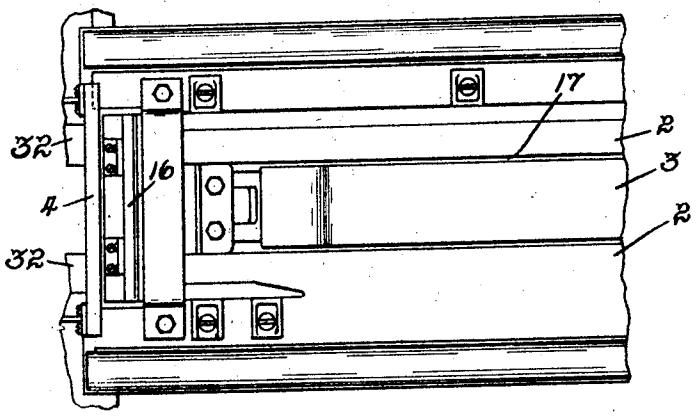


Fig. 3.

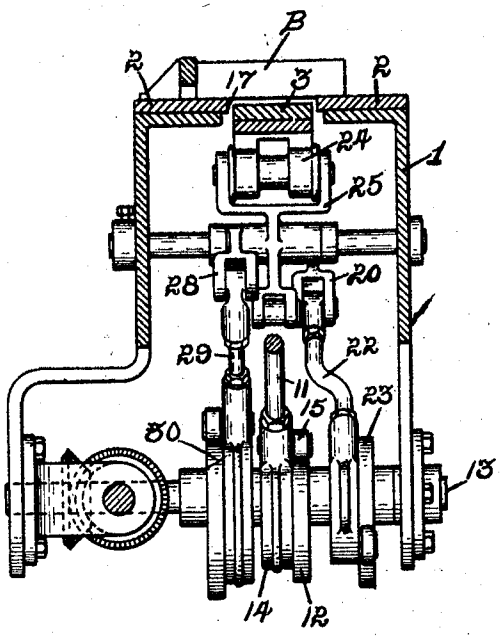
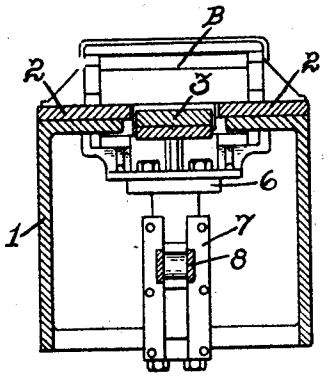


Fig. 4



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UNITED STATES PATENT OFFICE.

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ARTICLE-FEEDING MECHANISM.

Original application filed November 22, 1923, Serial No. 676,231. Divided and this application filed January 31, 1927. Serial No. 164,875.

This invention relates to feeding means for article wrapping machines and particularly to a machine for wrapping butter.

The primary object of the invention is to provide a simple, novel and efficient means for feeding the butter bars or other articles in a predetermined timed order to the wrapping parts of the associated machine.

The invention is shown by way of illustration in the accompanying drawings, in which:

Fig. 1 is a fragmentary longitudinal sectional view of the feeding mechanism; Fig. 2 is a top plan view of the front or inner end portion of the feeding mechanism; Fig. 3 is a section on the line 3—3 of Fig. 1; and Fig. 4 is a section on the line 4—4 of Fig. 1.

This application is a division of our copending application, Serial Number 676,231, filed November 22nd, 1923, now Patent 1,624,203, of Apr. 12, 1927, for packing wrapping machine.

Referring to the drawings, the frame 1 of the wrapping machine has transversely spaced bars 2 forming a table on its top over which butter bars or other articles are fed to the wrapping mechanism. The table 2 may be of maple wood and the butter bars are advanced step by step along this table, and successively moved into engagement with a stop 4 at the forward end of the bars, which stop serves to arrest the movement of the foremost butter bar in properly aligned position within a vertically movable receiver 5 disposed at the forward end of the butter bars 2.

The receiver 5 is carried by a slide 6 which is movable vertically in a guide 7 and connected to a rocker arm 8 on a shaft 9. The shaft 9 has an arm 10 which is operated by a rod 11 connected to and actuated by rotation of the cam 12 on the cam shaft 13. It will be noted that the rod 11 is provided with a strap 14 surrounding the cam shaft 13 and has rollers 15 in oppositely disposed relation engaging the cam 12.

The receiver 5 has a stop 16 on the upper end portion of the rear side thereof, which stop serves to prevent a forward movement of the butter bars when the receiver is lowered from receiving position.

The means for imparting step by step advancing movement to the butter bars along the table 2 include a feed bar 3 which extends substantially throughout the length of the table and operates thru a longitudinally extending opening 17 in the table 2 to engage the bottom sides of the butter bars mounted on the table.

The table feed bar 3 has a slotted guide 18 on its under face to receive rollers 19 carried by a forked arm 20, the latter mounted on a shaft 21, and being actuated by a rod 22, which is actuated by a cam 23 on the cam shaft 13. The feed bar 3 is supported and guided for horizontal movements and given vertical movements by rollers 24 carried by a forked arm 25 disposed at opposite sides of the arm 20; the arms 25 being pivotally mounted on respective shafts 26 and being pivotally connected by a rod 27 to cause them to have rocking movements in unison. The front arm 25 has a lug 28 pivoted to a rod 29 which is actuated by a cam 30 on the cam shaft 13. A coiled tension spring 31 is connected to the table and to the rod 22 and acts on the rod to take up lost motion.

The butter bars which are advanced over the guides 2 by the feed bar 3 are successively lowered by the receiver 5 into alignment at and between sides with a pair of guide and supporting bars 32 which extend in horizontally spaced relation lengthwise of the table 2, and only a fragment of these bars is shown in the drawing.

As described in the copending application above mentioned, the butter bars are advanced along these supporting bars, and during the advancing movement each bar is individually wrapped, but as this mechanism forms no part of the present invention, illustration and description thereof is deemed unnecessary.

In operation, a supply of butter bars B is placed on the table 2 and this supply is maintained during the running of the machine. After the machine is started and rotation is imparted to the shaft 13 the feed bar 3, through the arms 25 and lever 21, is given vertical and horizontal reciprocatory movements successively to raise and advance

the butter bars in step by step manner over the table. The butter bars move forwardly with the forward movement of the feed bar 3, and as soon as the receiver 5 has been synchronously raised by the slide 6 to align with the butter bars on the table 2, the foremost butter bar is moved into the receiver and stopped in proper position therein by engagement with the stationary stop 4.

The receiver 5 is then lowered to place the butter bar disposed therein in the plane of the guide bars 32, such movement of the receiver placing the stop 16 carried thereby in register with the butter bars on the table 2 so as to prevent forward movement thereof until the receiver has returned to elevated position. As shown and described in the above copending application, suitable means are employed to move a butter bar from the receiver, onto the guide bars 32, but this mechanism forms no part of this invention, and description thereof is not deemed necessary. Thereafter the receiver is again elevated into the plane of the table 2 to receive another butter bar, and the above operation is repeated.

It will be seen that we have provided a construction which satisfies the objects enumerated above and one which constitutes a valuable advance in the art. While we have shown the invention in a certain physical embodiment, it is to be understood that modifications of the construction shown may be made by those skilled in this art without departing from our invention, as expressed by the following claims.

What we claim as new and desire to secure by Letters Patent, is:—

1. In a machine of the type set forth, article supporting means, means for advancing articles along said supporting means, a vertically movable slide adjacent an end of the supporting means having a part open at its front and back to receive and support the articles therein, said slide being located below the supporting means, a stop on the slide located adjacent to the front of and above said receiving part thereof, a second stop carried by the supporting means to close the back of the receiving part when the latter is in register with the supporting means, and means to raise and lower the slide whereby upon lowering of the slide to move the article downwardly and to also move the stop of the slide downwardly to its operative position.

2. In a machine of the type set forth, article supporting means, means for advancing articles along said supporting means, vertically movable means adjacent an end of the supporting means having a receiver open at its front and back and formed to receive and support the articles therein, means associated with said end of the supporting means to close the back of the receiver when the latter is in register with the supporting means, means carried by the said vertically movable means adjacent to the front of the receiver and movable across said end of the supporting means to engage and hold the articles from forward movement upon movement of the receiver out of register with the supporting means, and means to operate the vertically movable means.

In testimony whereof we have hereunto signed our names to this specification.

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