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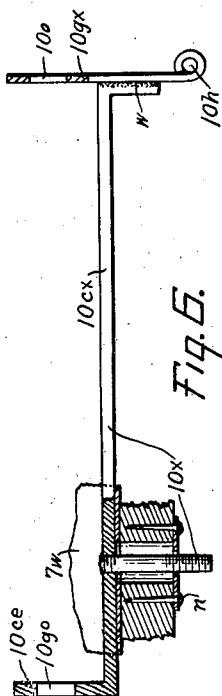
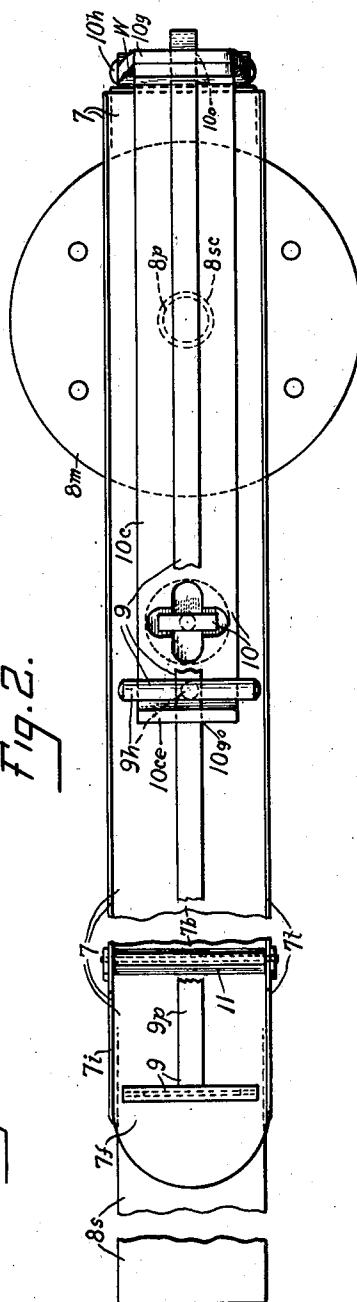


Fig. 2.



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July 19, 1949.

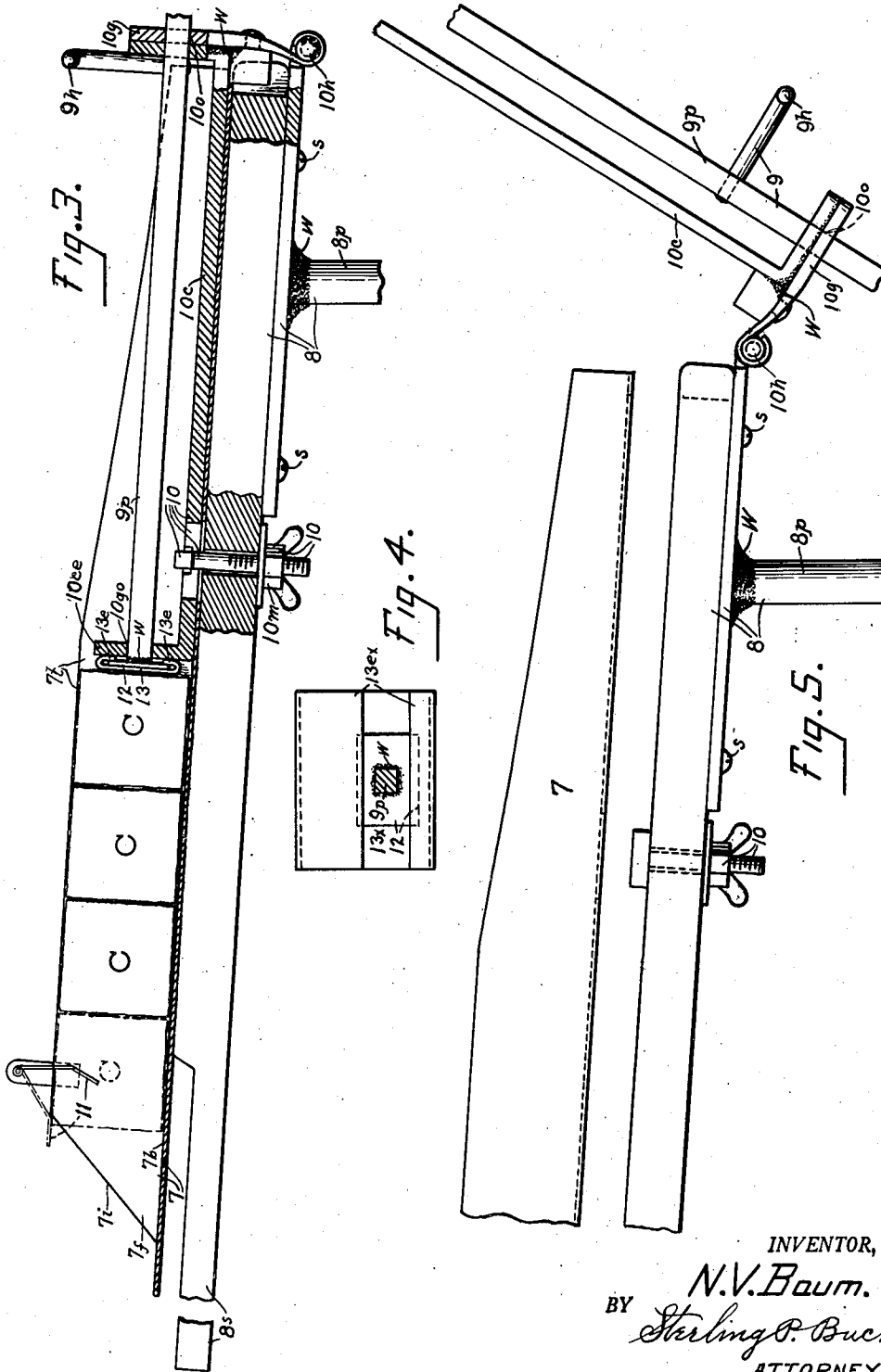
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DEVICE FOR GAUGING AND BAGGING A GROUP OF ARTICLES

Filed July 10, 1947

2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

2,476,475

DEVICE FOR GAUGING AND BAGGING A GROUP OF ARTICLES

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Application July 10, 1947, Serial No. 759,968

5 Claims. (Cl. 226-18)

1

This invention relates to a device for gaging and bagging a group of articles.

One object of this invention is to provide a device by which arranged groups of cookies and other articles can be bagged more quickly and neatly than by any means or method previously known to me in years of experience in producing and bagging cookies or similar articles.

Other objects and important features are pointed out or implied in the following details of description in connection with the accompanying drawings in which:

Fig. 1 is a left-side view of the tested, practical form of the invention mounted on a table of which only a portion is shown, portions of the supporting means being broken away.

Fig. 2 is a top-plan view of the device of Fig. 1, portions broken away.

Fig. 3 is a view partly in side elevation, partly in vertical section along its median plane.

Fig. 4 is a view partly in cross-section, showing a relatively large plate clamped on the relatively small plate that is a part of the means for pushing the groups of articles into the respective bags.

Fig. 5 is a fragmental exploded view of the invention.

Fig. 6 is a fragmental view, partly in section, showing a modified form of the combined pusher-rod-guide and channel-clamp-bar.

Referring to these drawings in detail, in which similar reference numerals and letters represent similar parts throughout the several views or drawings, the invention is now described in detail as follows:

This invention relates to a device for gaging and bagging a group of articles, especially such as cookies, crackers, cracker-sandwiches, candy-cakes or patties and wafers, etc., whether angular or circular.

The invention includes, broadly, a channel-unit 7 comprising side-walls 7w and a floor 7b and having an open front 7f and an open top-portion at 7t (Figs. 2 and 3), in combination with supporting means 8 (Fig. 1) on which said channel-unit 7 is normally secured and supported in an approximately horizontal position at which said articles c can be passed down through said open top-portion and grouped on said floor 7b, said front being adapted to enter the mouth of an open bag (not shown), in receiving position at said front, and pushing means 9 operable in said channel-unit for pushing said group of articles as at c through said open front 7f and into said bag when the latter is held in said receiving position.

2

The channel-unit 7 is supported with the front end of said floor 7b higher than other parts of said floor, thereby to prevent said articles from gravitating through said open front, as when such articles are circular and tend to roll; but the floor 7b is approximately horizontal for maximum convenience.

The supporting means comprises a bag-supporting element 8s that is positioned partly under said open front and partly sub-forward of said front; sub-forward meaning in a plane lower than that of a forward extension of the channel-bottom or floor.

The front ends of the walls 7w are inclined at 7i from their tops to said floor 7b, so they are effective to widely open the mouth of a bag when said bag is caused to receive the front end of said floor and is moved rearward to said tops of the walls 7w.

The supporting means comprises a normally vertical downwardly extending pivot 8p, and a socket 8sc provided with means 8m to secure it to a table or the like in a normally vertical position, said pivot being adapted to be adjusted rotatively and vertically in said socket, and means are provided to secure said pivot in its various adjustments in said socket, such means being shown at 8ss in the form of a set-screw.

Clamping means 10 or 10x are operable to clamp said channel-unit on said support 8 and to release the channel-unit from said support 8, so channel-units of similar construction but of different dimensions can be operatively engaged with said support and correlated with said pushing means 9 so as to bag articles and groups of various dimensions.

A combined clamping means 10 or 10x and pusher-guide 10g, which latter is also a hinge-element, is hinged at 10h to the rear end of said supporting means 8 and comprises a normally erect portion provided with a guide-opening 10o therethrough, a clamp-bar or pusher-guiding bar 10c or 10cx has one end united with said hinge-element 10g, the opposite end of said clamp-bar being normally erect as at 10ce and being the front pusher-guide-element having a pusher guide-opening 10go therethrough, and the main intermediate portion of said clamp-bar being normally against said floor 7b of said channel-unit. Manipulative means 10m, such as a wing-nut is normally engaged with said support 8 and clamp-bar 10c for clamping said channel-unit 7 on said supporting means 8 and releasing the channel-unit from said supporting means. The pushing means comprises a rod 9p that extends through

the openings of said clamp-bar 10c or 10cz and hinge-element and is slidable therethrough, said hinge-element 10g or 10gx being effective to keep said clamp-bar and pushing means intact with said support 8 for convenience of the user while changing from one channel-unit to another channel-unit.

A bag-controlling means 11 is a bent plate pivotally mounted above the front portion of said channel-unit and has a free depending lower end portion in the path of the group of articles when being pushed toward said open front and is movable by pressure of said articles to the upper-inner part of the bag's mouth when the bag is in the receiving position around said front, for preventing interference of the bag's mouth with the articles being bagged.

The pushing means comprises a relatively small plate 12, the push-rod 9p, united with the central part of said plate, and a relatively large springy plate 13 having opposite edge-portions 13e turned toward one another and having their free edges spaced from the main part of the springy plate 13 sufficiently to permit opposite edges of said relatively small plate 12 to be slid into and out of clamping engagement of said free edges and said main part of the springy plate.

In Fig. 4 is shown a second springy plate 13x of same construction as that in Figs. 1 and 3, but of a different size, and interchangeable therewith in clamped position on the relatively small plate 12.

Any appropriate means may be employed for securing the parts of this device together, for instance, screws s, nails n, welding w, etc.

In operating this device, the user first adjusts the height and angle by manipulation of the elements 8ss and 8p with respect to the socket 8sc; then passes cakes, cookies or crackers, etc., through the open part of the channel 7 to the floor 7b, in the manner shown at cccc, in front of the pusher 9, the width of the channel-unit 7 and a number of transverse sub-groups of the articles determining the volume of the entire group to be pushed into the bag (not shown) that rests on the element 8s with the part 7i in its mouth; then while the bag is held in receiving position by one hand of the user, his or her other hand pushes the handle 3h forward, thereby causing the pusher 9 to push the articles against the plate 11 so as to move it forwardly and upwardly against the upper-inner surface of the bag's mouth while the group of articles passes into the bag without interference of any part of the bag-mouth; whereupon, the user returns the pusher to the rear position shown in Fig. 3, and repeats the operation above described.

I have no intention to limit my patent protection to the precise detail of the drawings or of the foregoing description, for the invention is susceptible of numerous changes within the scope of the inventive ideas as implied and claimed.

My invention is claimed as follows:

1. In a device for gaging and bagging a group of articles, a channel-unit comprising side-walls and a floor and having an open front and an open top-portion, in combination with supporting means on which said channel-unit is normally secured and supported in an approximately horizontal position at which said articles can be passed down through said open top-portion and grouped on said floor, said front being constructed

to enter the mouth of an open bag in receiving position at said front, a combined clamping means and pusher-guide hinged to the rear end of said supporting means and comprising a hinge-element having a normally erect portion provided with a guide-opening therethru, and pushing means slidable in said pusher-guide and operable in said channel-unit for pushing said group of articles through said open front and into said bag when the latter is held in said receiving position.

2. The combination defined by claim 1, and means pivotally mounted above the front portion of said channel-unit and having a free lower portion in the said channel-unit in the path of the group of articles when being pushed toward said front and movable by pressure of said articles to the upper-inner part of a bag's mouth when the bag is in the receiving position around said open front, for preventing interference of the bag's mouth with the articles being bagged.

3. The combination defined by claim 1, said pusher-guide comprising a pusher-guiding bar having one end united with said hinge-element, the opposite end of said pusher-guiding bar being normally erect and having a guide-opening therethru in open communication with the first-said guide-opening for cooperation in guiding said pushing means.

4. The combination defined by claim 1, said pusher-guide comprising a pusher-guiding bar having one end united with said hinge-element, the opposite end of said pusher-guiding bar being normally erect and having a guide-opening therethru for cooperation with the first said guide-opening for guiding said pushing means, the main intermediate part of said pusher-guiding bar being normally against said floor of said channel-unit, and manipulative means normally engaged with said supporting means and pusher-guiding bar for removably securing said channel-unit in its normal cooperative relation to said supporting means and pushing means.

5. In the combination defined by claim 1, said pusher-guide comprising a front apertured erect portion, said pushing means comprising a rod that extends thru said pusher-guide and has a manipulative element united therewith and extending upward therefrom to a distance above said erect portion of said pusher-guide and being effective to operate said rod and to abut against said front erect portion for limiting pushing movements of said pushing means.

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