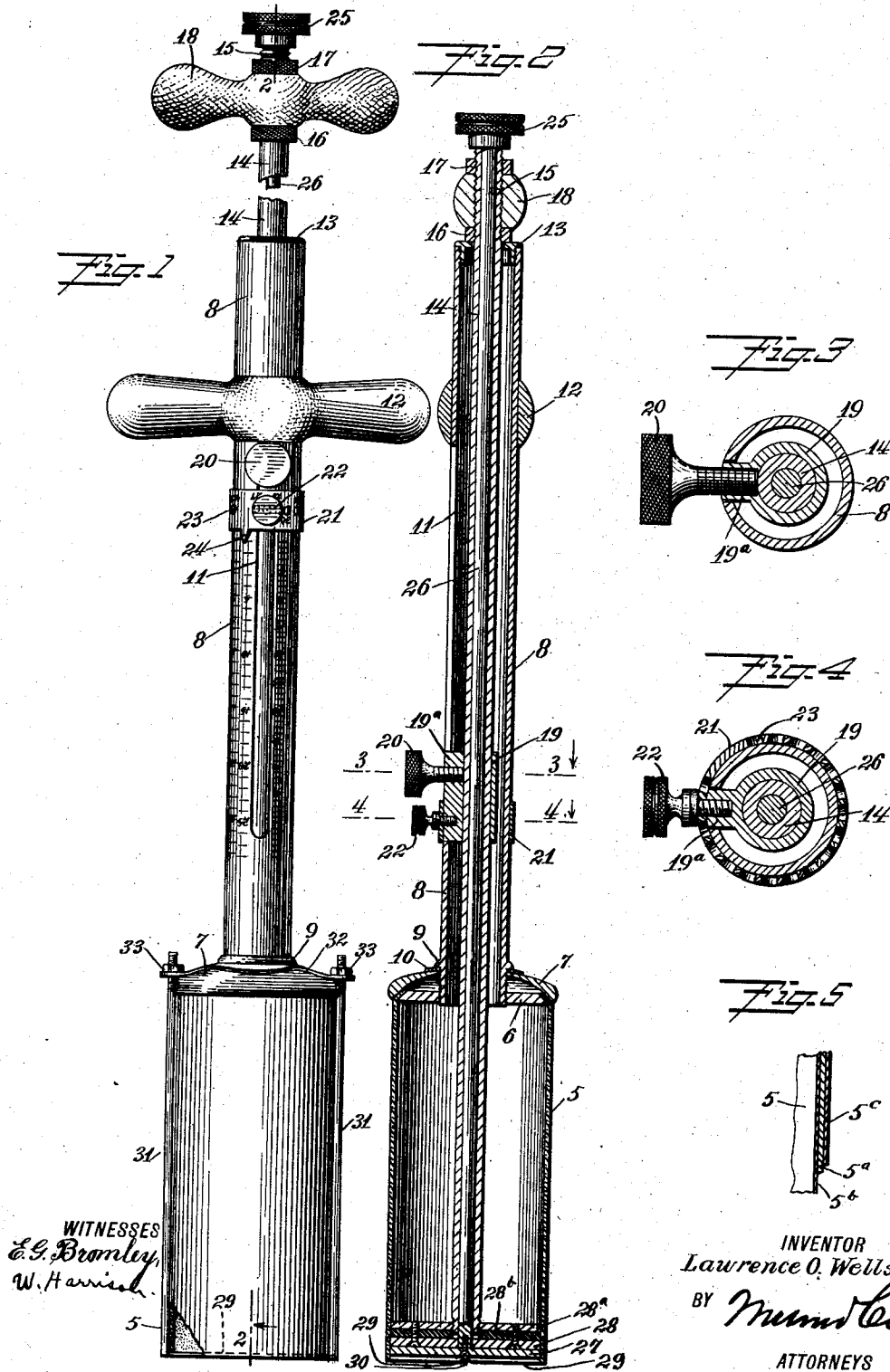


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SCOOP FOR MEASURING PLASTIC MATERIAL.
APPLICATION FILED JUNE 15, 1910.

992,828.

Patented May 23, 1911.



UNITED STATES PATENT OFFICE.

LAWRENCE O. WELLS, OF BONNE TERRE, MISSOURI.

SCOOP FOR MEASURING PLASTIC MATERIAL.

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Specification of Letters Patent.

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Application filed June 15, 1910. Serial No. 567,090.

To all whom it may concern:

Be it known that I, LAWRENCE O. WELLS, a citizen of the United States, and a resident of Bonne Terre, in the county of St. Francois and State of Missouri, have invented a new and Improved Scoop for Measuring Plastic Material, of which the following is a full, clear, and exact description.

My invention relates to scoops for plastic materials such as lard and butter, ice-cream, and so-called peanut butter and maple butter.

More particularly stated, my invention comprehends a scoop of the general type described in Patent No. 874,277, to H. L. Adams and myself, this patent bearing date of December 17, 1907.

The main object of my present invention is to improve the means whereby the plastic materials are to be loosened from a receptacle containing them and afterward ejected from the barrel of the scoop.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation showing the scoop complete; Fig. 2 is a vertical section on the line 2—2 of Fig. 1, looking in the direction of the arrow and showing the internal mechanism of the scoop; Fig. 3 is an enlarged section on the line 3—3 of Fig. 2, looking in the direction of the arrow; Fig. 4 is an enlarged section on the line 4—4 of Fig. 2, looking in the direction of the arrow; and Fig. 5 is a detail showing an enlarged section of the barrel.

At 5 is a barrel comprising a cylindrical member 5^a of sheet material having coatings 5^b, 5^c of enamel upon it for the purpose of giving it a smooth glossy surface to which plastic materials will not adhere with undue firmness. The barrel 5 is held by disks 6, 7, the latter being mounted upon the lower end of a cylindrical guide 8. This guide is provided with a raised bead 9 of annular form, and resting against this bead is a ring 10 which is engaged by the disk 7. The lower end of the cylindrical guide 8 is threaded externally and threaded to turn upon it is the disk 6. By turning the cylindrical guide 8, the disk 6 is forced against the adjacent end of the barrel 5, thereby clamping the same against the disk 7. The

cylindrical guide 8 is provided with a slot 11 and adjacent to the upper end of this slot is a handle 12 mounted firmly upon the cylindrical guide. An annular plug 13 is mounted upon the end of the cylindrical guide 8 and partially closes the same. Extending through the annular plug 13 is a tubular piston rod 14 having its upper portion 15 threaded. Two nuts 16, 17 are threaded to fit upon this threaded portion, and between these nuts is a handle 18.

At 19 is a tubular slide which encircles the piston rod 14 and is provided with a boss 19^a extending outwardly through the slot 11. This slide 19 carries a thumb screw 20 extending directly through the boss 19^a and adapted to press against the piston rod 14 so as to clamp the slide 19 firmly in position thereupon.

At 21 is an indicating ring which is detachably held upon the boss 19^a by aid of a thumb screw 22. By removing this thumb screw the indicating ring 21 may be turned into various positions, and when the screw 22 is replaced, the indicating ring is held in such position. The indicating ring is provided with holes 23 through any one of which the screw 22 may be inserted, as will be understood from Fig. 4. The indicating ring also carries a pointer 24 and when turned into various positions, this pointer is in alinement with the various numerical scales upon the outside of the cylindrical guide 8, as shown more particularly in Fig. 1.

Loosely engaging the upper end of the piston rod 14 is a thumb piece 25 which is mounted rigidly upon a long rod 26 serving the purpose of a piston rod and being, to some extent, independent of the tubular piston rod 14, as hereinafter explained. Mounted rigidly upon the lower end of the piston rod 26 and revoluble therewith is a piston 27. When the thumb piece 25 (see top of Fig. 2) is turned, the piston rod 26 and the piston 27 turn with it, all other parts remaining stationary.

The lower end of the tubular piston rod 14 carries a disk 28 of metal and engaging the same is an annular packing or gasket 28^b; engaging this gasket is a ring or disk 28^a. The parts 28, 28^a, 28^b together constitute a piston which as a unit is carried by the tubular piston rod 14. This piston, like the tubular piston rod 14, does not turn. At 29 is a wire extending diametrically across the

lower end of the barrel which is open. For the purpose of holding this wire the barrel is provided with two notches 30 disposed directly opposite each other. The wire 29
 5 has a rectangular cross section and is held by two rods 31. A yoke 32 holds in position the upper ends of these rods, which are threaded and are fitted with nuts 33. The graduations upon the guide 8 are enameled
 10 in red.

The operation of my device is as follows: Suppose the operator desires to measure a given number of cents' worth of a given commodity. For instance, he desires to sell 10¢
 15 worth of lard, the price of which is 45¢ a pound. He pushes the thumb piece 25 downwardly so that the disk 27 is in its lowermost position, as indicated in Figs. 1 and 2. He next moves the screw 22 and
 20 turns the indicating ring 21 into such position that the pointer 24 is in registry with a particular group of graduations upon the outside of the cylindrical guide 8. The numbers shown upon the outside of the indicating ring assist the operator in determining
 25 to what extent the ring should be turned. The various numbers shown upon the indicating ring correspond with the various holes 23 thereof, each number upon the ring
 30 indicating a particular price per pound.

The ring 21 being turned so that the pointer 24 is in proper position, the screw 22 is replaced. The operator next grasps the screw 20 and loosening it moves the slide
 35 19^a upward until the pointer 24 is brought into registry with the particular numerical graduation corresponding to the number of cents' worth of the article to be sold. That is to say, if the purchaser desires 10¢ worth
 40 of the article, the slide 19^a and the indicating ring 21 are moved upwardly until the pointer 24 comes into registry with the numerical graduation 10. The screw 20 is now turned so as to clamp the slide 19 rigidly in
 45 this position upon the tubular piston rod 14. During all this time, it will be remembered, the piston 27 is at the lower end of the barrel 5, yet when the slide 19 is moved upwardly and fastened as just described, the distance
 50 from the upper end of the slide to the upper end of the slot 11 is correspondingly lessened. The operator next thrusts the lower end of the barrel 5 into the lard or other plastic material. As he does this, the piston
 55 27 and other movable parts immediately adjacent to the same are moved directly upward by the back pressure of the plastic material. The scoop being driven farther into the plastic material, the slide 19 reaches the

limit of its travel—that is, it reaches the
 upper end of the slot 11 and can travel no
 farther. The operator now gives the entire
 device a twist which causes the wire 29 to
 cut through the plastic material. He then,
 by pulling upon the cylindrical guide 8,
 65 withdraws the barrel 5 from the plastic material. The upward travel of the piston 27, due to back pressure of the plastic material, as above described, raises both piston rods 14 and 26, and in so doing pushes the handle
 70 18 farther away from the handle 12. Next, the operator places the barrel 5 over a dish or the like, and by forcing the handle 18 back toward the handle 12, causes the piston
 75 27, by pressure upon the plastic material held by the barrel, to eject said plastic material into the dish. Since, however, the plastic material may cling to the piston 27, the operator grasps the thumb piece 25, and by turning it causes the rotation of the piston
 80 rod 26 and piston 27. As the latter turns, in close proximity to the wire 29, this wire cuts the plastic material away from the cylinder and thus completely disengages the charge of plastic material. The precise amount of
 85 the plastic material to be sold for the particular price under discussion (say, 10¢) is thus measured off in the barrel and afterward ejected.

Having thus described my invention, I
 90 claim as new and desire to secure by Letters Patent:

The combination of a barrel provided with an open end and with notches upon said open end, a cutting member extending across
 95 said open end from one of said notches to another, a pair of rods connected with the respective end of said cutting member, a cylindrical guide connected with said barrel for enabling the latter to be handled by the
 100 operator, a yoke mounted upon said barrel and connected with said rods for the purpose of holding said cutting member tightly in relation to said barrel, said yoke having an opening through which said guide extends,
 105 a piston movably mounted within said barrel for the purpose of ejecting charges of plastic material therefrom, and a piston rod connected with said piston and extending through said cylindrical guide
 110 and through said opening in said yoke.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LAWRENCE O. WELLS.

Witnesses:

W. E. WELLER,
 J. H. MALUGEN.