

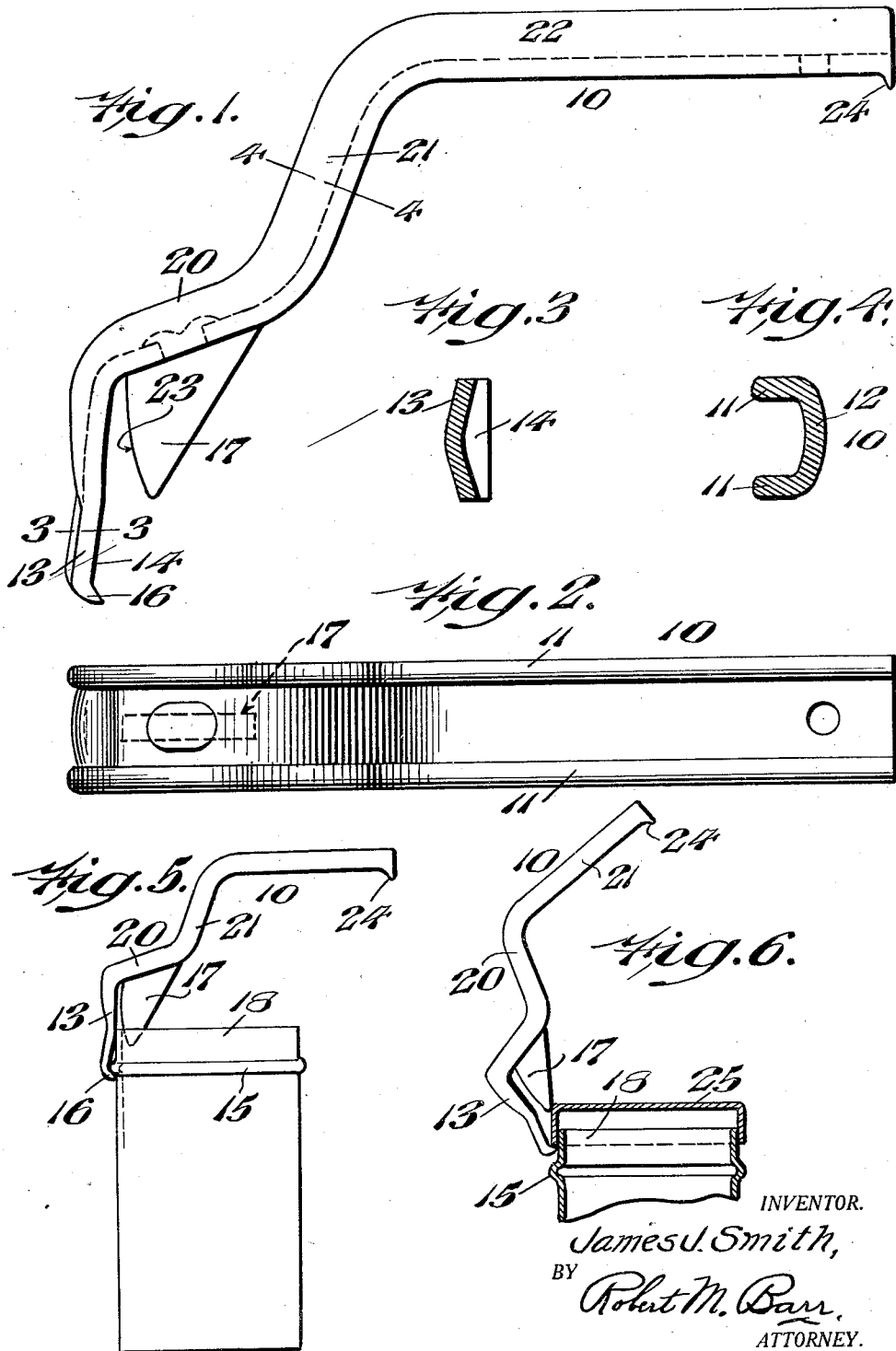
Dec. 1, 1931.

J. J. SMITH

1,834,503

CAN LIFTER

Filed May 8, 1930



UNITED STATES PATENT OFFICE

JAMES J. SMITH, OF PHILADELPHIA, PENNSYLVANIA

CAN LIFTER

Application filed May 8, 1930. Serial No. 450,611.

The present invention relates to lifting devices and more particularly to a utensil for lifting, carrying and the general handling of ice cream cans.

5 In the ice cream business as carried on at the present time it is customary to deliver ice cream to dealers and dispensers in cylindrical metal cans, each of one gallon or more capacity which are placed in refrigerator cabinets to preserve the contents in frozen condition. When the cans are in place in the cabinet it is quite difficult to remove and replace individual cans, and is as well an awkward operation because of the restricted space and 10 the smooth, round contour of the cans. Various implements have been devised to serve as a lifting means but for one reason or another have proved inefficient and unsatisfactory.

Some of the objects of the present invention 20 are to provide an improved hand lifter for cans; to provide a can lifter wherein provision is made for mechanically gripping a can so that it is impossible for the can to drop or be accidentally released; to provide a 25 can lifter which is operative in a minimum space to secure a lifting hold upon a can; to provide a can lifter wherein a can can be lifted without throwing the center of gravity of the can out of the vertical axis of the can; to provide a can lifter wherein provision is made 30 for easily removing the top of a can; and to provide other improvements as will hereinafter appear.

In the accompanying drawings Fig. 1 represents a side elevation of a can lifter embodying one form of the present invention; Fig. 2 represents a plan of the same; Fig. 3 represents a section of line 3—3 of Fig. 1; Fig. 4 represents a section on line 4—4 of Fig. 1; Fig. 5 represents a side elevation showing the lifter holding a can suspended; and Fig. 6 represents a side elevation of the lifter as used to remove the cover of a can.

Referring to the drawings one form of the 45 present invention consists of a body 10 which is formed of flat bar stock with its side edges 11 turned in the same direction to provide a generally channel shaped member. As will be seen from Fig. 3 the back or grasping portion 12 of the body has a generally arc-shape

which eliminates sharp angles and makes the device easy to handle. The ends of the side channels are also curved or rounded for the same purpose.

For the purpose of grasping the side of a 55 can so that the same can be lifted vertically or held suspended the body 10 is provided with a downwardly extending jaw 13 which preferably tapers toward its end and when the handle portion of the body is horizontal 60 this jaw member is disposed at an angle to the vertical with its free end spaced from the aforesaid vertical plane. In other words the face 14 of the jaw 13 which is juxtaposed with respect to the side of the can diverges 65 from the top of the can downwardly in order to provide a space which receives the ordinary circumferential bead 15 which is located on the can near its top. The extremity of the jaw 13 terminates in a laterally disposed 70 finger 16 which in operative position of the lifter seats beneath the bead 15 and thus transmits a lifting force which acts in a direction to elevate the can. In order that this lifting force can not push the jaw 13 away from 75 the can there is a fulcrum element in the form of a downwardly extending abutment 17 which is spaced from the face 14 of the jaw 13 a sufficient distance to allow the rim 18 of the can to pass into the space between the two members. This abutment 17 is connected to an angularly disposed portion 20 of the lifter which is interposed between the jaw 13 and a second angularly disposed section 85 21 which joins the handle 22 of the lifter. The spacing and angular relation of the jaw 13 and abutment 17 is such that when the lifter is placed upon the rim 18 the face 23 of the abutment 17 will bear against the inner face of the can as soon as any upward 90 lifting force is applied to the handle 22 and at the same time the finger 16 will bite beneath the bead 15 to rigidly anchor the jaw and its associated parts to the can. In connection with this construction attention is directed 95 to the fact that the two sections 20 and 21 play an important part in the proper operation of the lifter and the angle of one with respect to the other and with respect to the handle and jaw are such that the transmit- 100

ted force counteracts any tendency of the lifted can to swing out of a vertical position and therefore each can can be lifted vertically without disturbing its center of gravity and bringing about an undesirable torque which makes it difficult to hold the handle of the lifter during the lifting or transporting movement. Thus it will be seen in order to carry out the foregoing functions that the jaw 13 is carried by a part which is offset horizontally from the handle 22 by a slight angle thereto and this latter part in turn is attached to the handle by the section 21 which is disposed at an angle to both the part 20 and the handle 22.

The end of the handle 22 is provided with an offset finger 24 which is so shaped and arranged as to fit between the bead 15 and the rim of the cover of the can so that when so placed it can be used as a hook by which the can cover 25 can be effectively loosened and removed from the can. It will of course be understood that since the cans contain a frozen product and are enclosed in cabinets having a low temperature that the covers of the cans freeze tightly in place and are very difficult ordinarily to remove. By the provision of the finger 24 upon the handle 22 it becomes relatively an easy matter to loosen and remove such can tops.

In connection with the face 14 of the jaw 13 it should be noted that this is shaped somewhat concave, as shown in Fig. 3, in order that it may conform generally to the circular contour of the outer face of the can with which it is to be used. Thus when the lifter is placed upon a can as shown in Fig. 5 this jaw face will contact with the outside of the can to give a three point action in the same horizontal plane so that when the can is in suspended position upon the lifter it can not have any side to side relative movement. This is important because it practically makes the lifter an integral part of the can when it is in operative position.

While the finger 24 upon the handle 22 primarily serves as a means for prying loose the tops of the cans it will also be apparent that the finger 16 of the jaw 15 can serve the same purpose so that it makes no difference which way the lifter is taken up in so far as the prying loose of the top of the can is concerned.

Having thus described my invention, I claim:

1. A can lifter comprising a substantially straight handle having one end thereof extended laterally at an obtuse angle, a jaw at the extremity of said extension, and an abutment carried by said angled extension and cooperating with the jaw to grip the side of a can, the angle of said extension being such with respect to said handle as to maintain the center of gravity of a can in its vertical axis during a lifting operation.

2. A can lifter comprising a straight handle portion, an extension from one end thereof and disposed at an obtuse angle to said handle portion, said extension having a portion directed laterally with respect thereto, a jaw at the end of said laterally directed portion and having a face disposed in a plane substantially perpendicular to the plane of said handle, and an abutment carried by the laterally directed portion of said extension and cooperating with said jaw to grip the side of a can therebetween.

3. A can lifter comprising a handle, a jaw, an abutment cooperating with said jaw to grip the side of a can therebetween, and means connecting said jaw, abutment and handle in a manner to maintain the center of gravity of a can within its vertical axis when the can is engaged by said lifter in a lifting operation.

4. A can lifter comprising a handle, a jaw, an abutment co-acting with said jaw to grip the side of a can, a connecting part between said jaw, said abutment and said handle, said connecting part being disposed at an angle with respect to said jaw and said handle, and said abutment and jaw having opposed faced disposed in substantially converging relationship from the outer extremities of the jaw and abutment.

Signed at Philadelphia, county of Philadelphia, State of Pennsylvania, this 28th day of April, 1930.

JAMES J. SMITH.