

Oct. 21, 1952

G. W. COFFEY
CAN FLATTENER

2,614,604

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2 SHEETS—SHEET 1

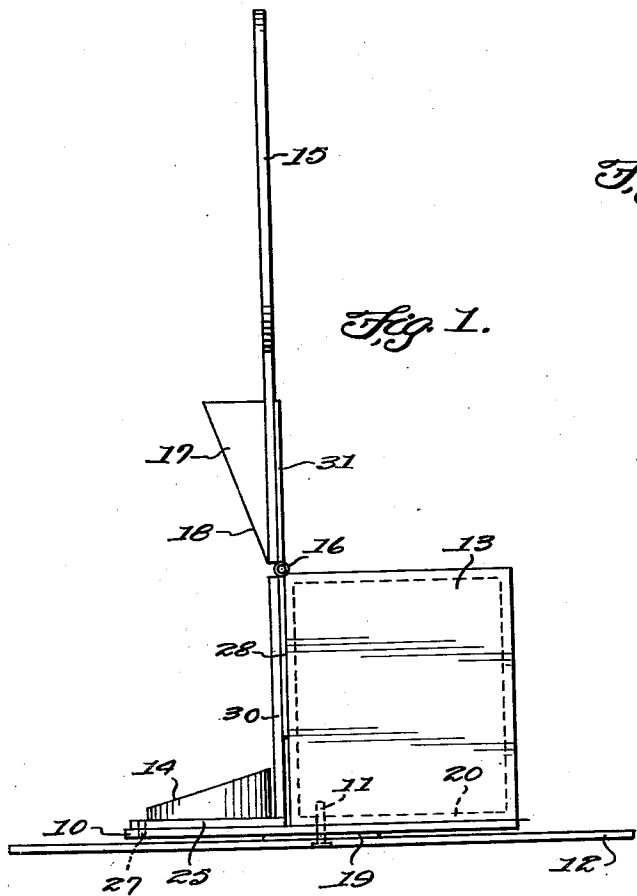


Fig. 2.

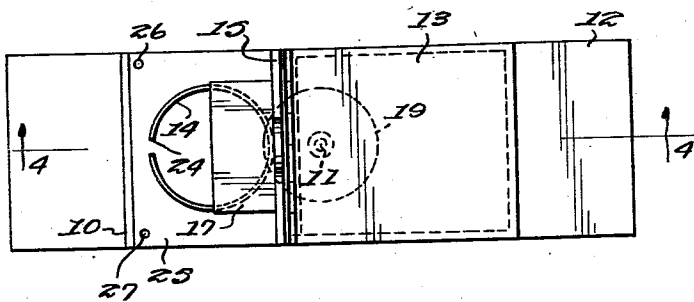
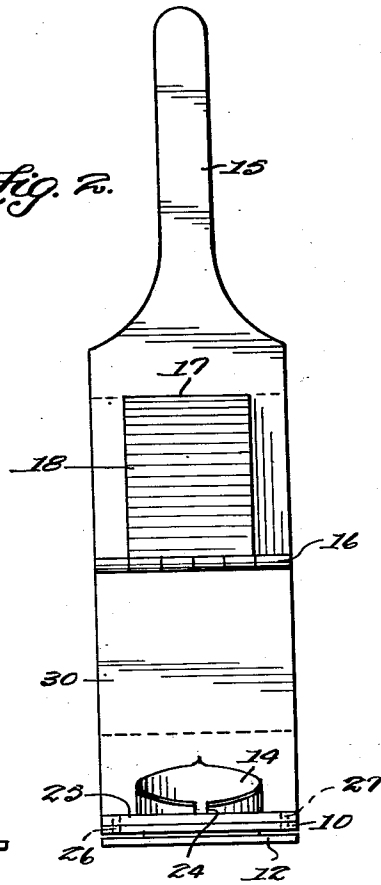


Fig. 3.

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2 SHEETS—SHEET 2

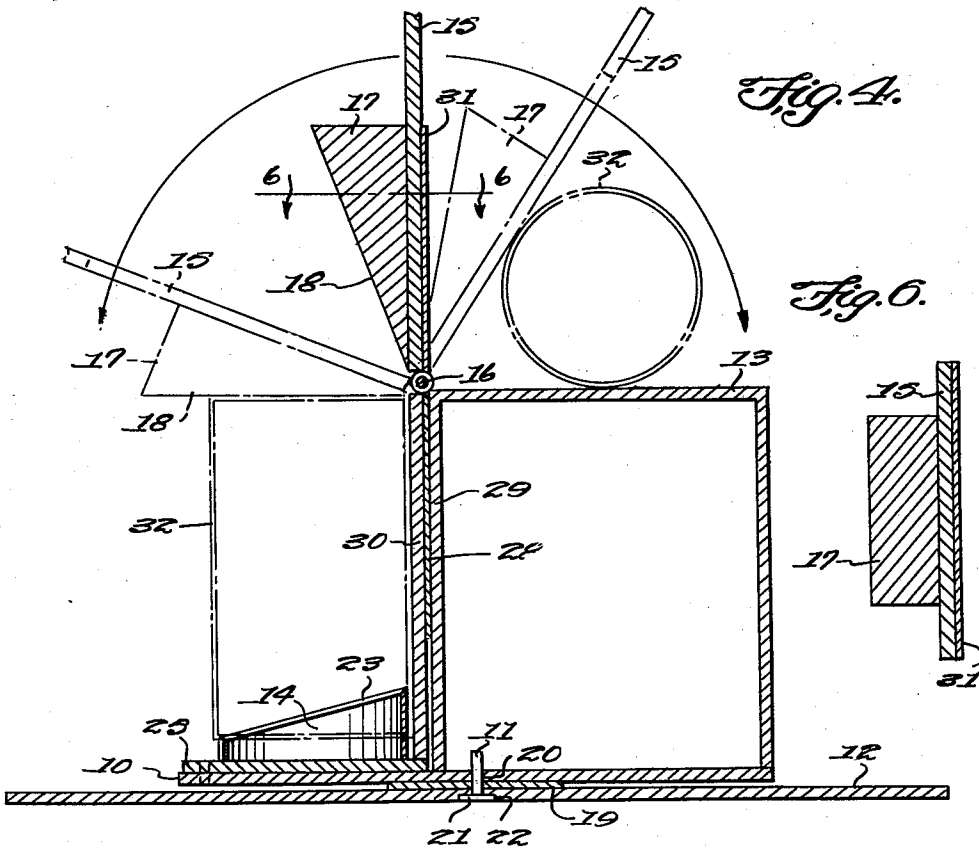


Fig. 4.

Fig. 6.

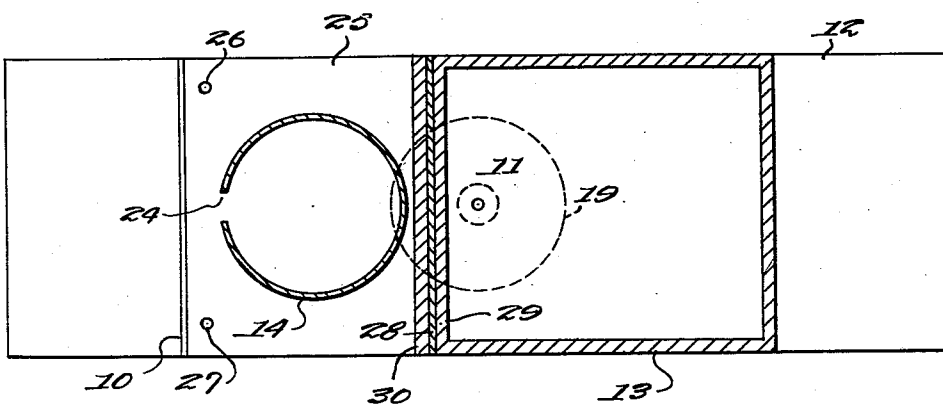


Fig. 5.

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UNITED STATES PATENT OFFICE

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CAN FLATTENER

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5 Claims. (Cl. 153—10.5)

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This invention relates to can flattening tools and machines, and in particular a manually actuated can flattening device having a manually actuated lever pivotally mounted at one side of a crushing table with cutting means for removing the ends of the can whereby, with the ends removed, the cans are placed upon the table and flattened, or crushed by the lever.

The purpose of this invention is to provide means for flattening cans to facilitate disposal of cans particularly as used as containers for various types of products.

In the conventional type of can in which numerous types of household products are provided and which also are used for paints, oils or other products, it is difficult to dispose of the can and where cans are buried or sold as junk it is desirable to flatten the cans. In crushing or flattening cans it has been found that with the heads or ends removed the cylindrical body of the can not only flattens more readily but occupies comparatively smaller space when flattened. With this thought in mind this invention contemplates a can flattening machine including means for first removing the ends from the cans and then means for crushing or flattening the body of the can whereby the final product occupies comparatively little space.

The object of this invention is, therefore, to provide a can flattening tool in which an operator may first remove the ends from the can and then, remaining in substantially the same position, flatten the body of the can.

Another object of the invention is to provide a can flattening device that may be used for cans of different sizes.

A further object of the invention is to provide a can flattening machine which is of a comparatively simple and economical construction.

With these and other objects and advantages in view the invention embodies a turntable pivotally mounted on a base with a flattening table carried by the turntable, a lever pivotally mounted at the upper end of the flattening table and positioned to crush objects on the flattening table, a knife carried by the turntable and positioned on the opposite side of the pivotal mounting of the lever and a block carried by the lever for forcing cans over the knife.

Other features and advantages of the invention will appear from the following description taken in connection with the drawings wherein:

Figure 1 is a side elevational view showing the can flattening tool.

Figure 2 is an end elevational view of the tool

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looking toward the knife for removing ends from the can.

Figure 3 is a plan view of the tool.

Figure 4 is a longitudinal section taken on line 4—4 of Figure 3 showing the can crushing tool with the manually actuated lever illustrated in the position of removing ends from the can on one side and in the position for crushing a can on the opposite side in dotted lines.

Figure 5 is a sectional plan through the lower part of the can flattening tool showing the circular knife and flattening table in section.

Figure 6 is a cross section taken on line 6—6 of Figure 4 showing the manually actuated lever with the can forcing block on one side thereof.

Referring now to the drawings wherein like reference characters denote corresponding parts the improved can flattening tool of this invention includes a turntable 10 pivotally mounted by a pin 11 on a base 12 with a flattening table 13 carried by the turntable, a circular cutter 14 also carried by the turntable and a hand lever 15 pivotally mounted by a hinge 16 on the flattening table and having a block 17 with a sloping face 18 mounted on one side and positioned to coast with the cutter 14 for removing ends from cans, and in which the sloping face 18 provides means for compensating for cans of different heights.

The turntable 10 is formed of a substantially flat panel and the lower surface thereof is spaced from the upper surface of the base 12 by a spacing washer 19. The pin 11 extends upwardly through the base 12, and the washer 19 and through an opening 20 in the turntable 10. As illustrated in Figure 4 the pin 11 is provided with a head 21 that is positioned in a recess 22 in the under surface of the base 12.

The circular cutter 14 is provided with a beveled upper cutting edge 23 and a slot 24 is provided at one side so that the entire end is not cut from the can. This provides a hinge whereby the end may be bent into the can so that the cans may be folded with the ends on the inside thereof. The cutter 14 is mounted upon a panel 25 and the panel is mounted on the turntable 10 by pins 26, and 27 which provide means for readily removing the cutter so that cutters of different sizes may be used to accommodate cans of different diameters.

The cutter 14 will cut ends of cans within the average range of sizes however for comparatively small cans and also for comparatively large cans it is desirable to use small or large cutters to correspond with the size of the can being flattened.

The lever 15 is provided with the block 17 and with the face of the block inclined cans of different lengths may be cut as the can may be gripped at different points along the face 18 of the block.

The hand lever 15 is hinged to the base or flattening table structure by the hinge 16, one plate, 28 of which is positioned between the rear wall 29 of the flattening table and an upright panel 30 of the turntable whereby the hinge is rigidly held, and the upper plate of the hinge which is indicated by the numeral 31 is secured to the lever 15, by welding or other suitable means.

With the parts arranged in this manner the can, as indicated by the dotted line 32 is first positioned upon the cutter 14 and by drawing the lever 15 downwardly the block 17 forces the can over the cutter substantially removing one end. The inclination of the sloping face 18 will raise the extreme lower portions of the lever during the cutting operations, so that the lever 15 will not strike the support for the base of the device when the device is acting on cans of small height. The position of the can is then reversed and the operation repeated whereby the opposite end of the can is substantially removed. The ends are folded into the can and the can placed in the position shown in Fig. 4 whereby downward movement of the lever flattens the can against the table 13.

It will be understood that the tool may be provided with cutters of different sizes and different sizes of tools may be provided for different types of cans. It will also be understood that the position of the hinge may be adjusted in relation to the base to compensate for extra large or smaller cans.

It will be understood that modifications may be made in the design and arrangement of the parts without departing from the spirit of the invention.

What is claimed is:

1. A can flattening tool comprising a base, a can end removing cutter carried by the base, a vertically disposed panel on said base adjacent said cutter, a lever pivotally mounted on the upper end of the panel and positioned to be pivoted downwardly in one direction to coact with the end removing cutter for urging the end of the can against the cutter, and a flattening table abutting said panel on the side opposite to the cutter and positioned to coact with the lever when it is moved downwardly in the opposite direction for flattening the bodies of the cans.

2. A can flattening tool comprising a base, a can end removing cutter carried by the base, a vertically disposed panel on said base adjacent said cutter, a lever pivotally mounted on the upper end of the panel and positioned to be pivoted downwardly in one direction to coact with the end removing cutter for urging the end of the can against the cutter, a flattening table abutting said panel on the side opposite to the cutter and positioned to coact with the lever when

it is moved downwardly in the opposite direction for flattening the bodies of the cans, and supporting means upon which the base is pivotally mounted.

3. A can flattening tool comprising a base, a can end removing cutter carried by the base, a vertically disposed panel on said base adjacent said cutter, a lever pivotally mounted on the upper end of the panel and positioned to be pivoted downwardly in one direction to coact with the end removing cutter for urging the end of the can against the cutter, a block having a sloping surface mounted on the said lever and positioned to engage the cans, and a flattening table abutting said panel on the side opposite to the cutter and positioned to coact with the lever when it is moved downwardly in the opposite direction for flattening the bodies of the cans.

4. In a can flattening machine, the combination which comprises a base, a turntable having a flattening table thereon pivotally mounted on the base, a lever hinged to one side of the flattening table and positioned to coact with the upper surface of the flattening table for flattening cans positioned upon the said table, a circular cutter having a sloping cutting surface carried by said turntable and positioned on the opposite side of the hinge whereby the lever may be actuated to force cans against the knife for removing the ends from the cans, and means on the lever compensating for cans of different heights when the cans are in position to be forced against the knife so that the lever will not strike the support for the said base when the lever is acting on cans of small height.

5. In a can flattening machine, the combination which comprises a base, a turntable having a flattening table thereon pivotally mounted on the base, a lever hinged to one side of the flattening table and positioned to coact with the upper surface of the flattening table for flattening cans positioned upon the said table, a circular cutter having a sloping cutting surface carried by said turntable and positioned on the opposite side of the hinge whereby the lever may be actuated to force cans against the knife for cutting the ends in the cans, means on the lever compensating for cans of different heights when the cans are in position to be forced against the knife so that the lever will not strike the support for the said base when the lever is acting on cans of small height, and means removably mounting the end removing cutter on the turntable whereby cutters of different sizes may be used thereon.

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REFERENCES CITED

The following references are of record in the file of this patent:

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