United States Patent

[11] **3,575,453**

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[54] **EASY DOOR OPENER**
3 Claims, 2 Drawing Figs.

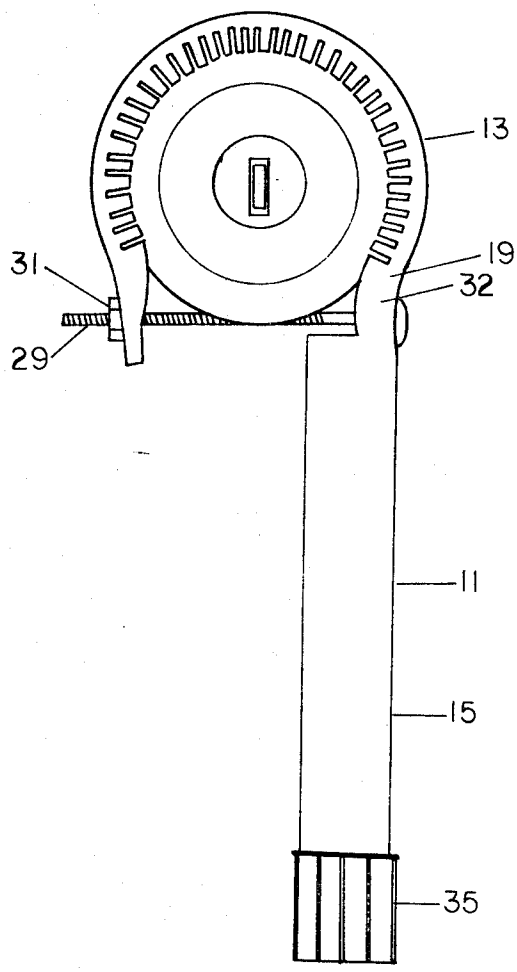
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[51] **Int. Cl.** **E05b 3/00,** E05b 1/00
[50] **Field of Search** ..... 292/1, 347, 348, 349, 350, 352, 354, 336.3; 16/121; 74/543, 544, 555; 287/53 (H)

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ABSTRACT: Easy door opener with a door knob grip section and a lever handle section. The door knob grip section is a resilient curved elongated thin element with inner and outer ends, almost closed on itself and having an inverted U-shaped cross section, serrated with teeth on opposed parallel edges. The inner end terminates in an outwardly extending lever handle which is joined to the inner end at a junction, and extending over this junction to the outer end of the grip section is a threaded member whereby the curved grip section can be placed around a door knob and the threaded member fastened so that the resilient grip section closes in on the handle. The serrated teeth grip the contours of the door knob and the user can readily open the door with the lever handle.



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2 Sheets-Sheet 1

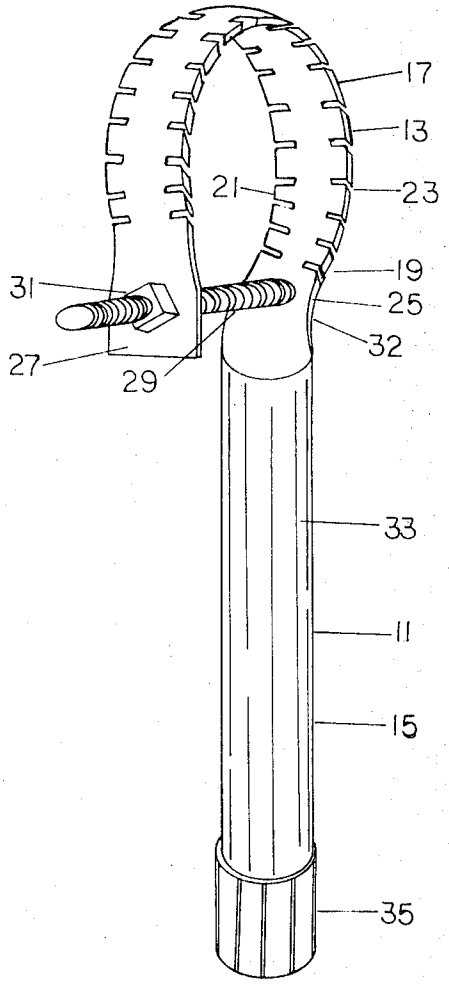


FIG. 1

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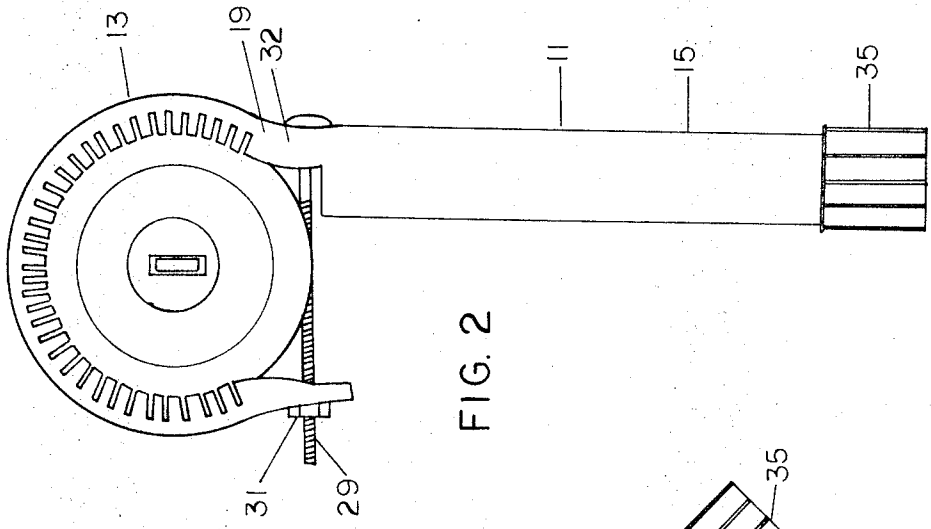


FIG. 2

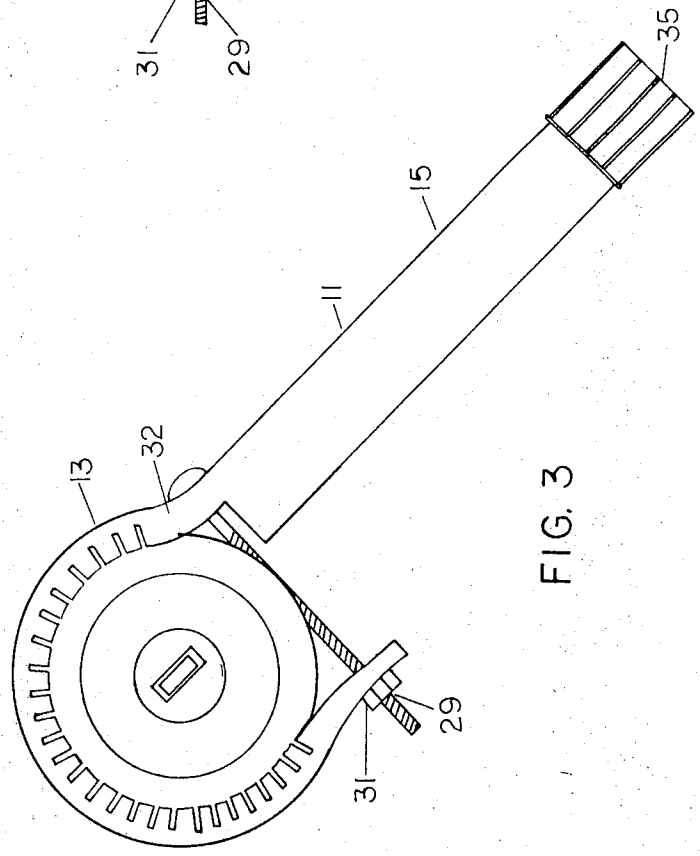


FIG. 3

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EASY DOOR OPENER

BACKGROUND OF THE INVENTION

The present invention relates to an easy door opener and more particularly to an easy door opener which can be readily manufactured on a mass production basis from waste material readily available, and is particularly useful for elderly persons living in trailers and mobile homes.

BRIEF DESCRIPTION OF THE PRIOR ART

At present a large number of persons who are elderly or infirm with illnesses which prevent them from using their limbs reside in mobile homes. To protect these homes against the weather, the manufacturers usually have the doors close to a very tight fit. Although once the door knob is turned, the door will readily swing open, the door knob presents a problem. Also, this problem is often not peculiar to mobile homes, since very often the door knobs in regular homes will not turn.

Although many attempts may have been made to solve the foregoing problem, none, as far as I am aware have been successful when carried out into practice commercially.

I have now discovered that it is possible to provide an attachment for a door knob which will facilitate the readily opening of the door by a crippled person or a child.

OBJECTS OF THE INVENTION

Thus, it is an object of the invention to provide a device which can be used to readily open a door.

Another object of the invention is to provide a device which can be easily manufactured from commercially available materials.

Still another object of the present invention is to provide a device which is easy to manufacture with few operations, can be readily packaged and readily attached to any door knob.

SUMMARY OF THE INVENTION

Generally speaking, the present invention contemplates an easy door opener which has a door knob grip section and a lever handle section. The door knob grip section has a curved configuration consisting of a resilient curved elongated thin element with an inner and outer end almost closed on itself and having an inverted U-shaped cross-sectional configuration the opposed edges of the inverted U-shape being serrated, with teeth. The inner end terminates in an outwardly extending lever handle which is joined to the inner end at a junction, and extending over this junction to the outer end of the grip section is a threaded member, e.g., a screw. Thus, the curved grip section can be placed around a door knob and the threaded member fastened so that the resilient curved grip section closes in on the handle. The serrated teeth gripping the contours of the door knob.

The invention, as well as other objects and advantages thereof will become more apparent from the following detailed description, when taken in connection with the accompanying drawing, in which:

FIG. 1 presents a longitudinal perspective view of the easy door opener contemplated herein;

FIG. 2 displays a front view of the easy door opener wrapped around a door knob; and,

FIG. 3 is a view similar to FIG. 2 showing the easy door opener turned at an angle to the view shown in FIG. 2 so as to turn the door knob.

DETAILED DESCRIPTION

The easy door opener 11 shown in the drawing has a door knob grip section 13 and a lever handle section 15. The grip section 13 consists of a curved elongated thin metal or plastic strip 17 which has a generally open edged inverted U-shaped configuration. The opposed edges 19, 21 are serrated and have teeth 23 which preferably have a rectangular rather than a pointed shape. This is to protect the user since the rectangular teeth will provide the necessary grip and will not catch on clothing. Metal or plastic strip 17 is almost closed on itself. Thus, there is an inner end 25 and an outer end 27 and these inner and outer ends are substantially flat and have no teeth and are disposed in planes which are almost parallel. Extending from the inner end 25 to the outer end 27 is a threaded member 29, e.g., a nut and bolt arrangement with a nut 31 at the end. The inner end of the metal or plastic strip 17 is joined at a junction 32 to a lever handle 33, which is part of the lever handle section 15. Actually, the lever handle section 15 and the door knob grip section 13 can be integral. Preferably, the lever handle 33 will have a tubular shape, and to finish off the handle, an end cap 35 is placed on the outer end of the lever handle 33.

OPERATION OF THE INVENTION

It is desired to provide means to readily open a door knob 37 which is shown in FIGS. 2 and 3. The nut 31 is loosened and the resilient grip section strip 17 is opened so that it will fit around the door knob. The grip section is placed around the door knob and the lever handle 33 is disposed in a convenient attitude, e.g., downwards. The nut 31 is then fastened on bolt 29 so that the teeth 23 grip the knob firmly. The device is now in place and elderly and infirm persons can readily open up the door.

MANUFACTURE OF THE INVENTION

For the purpose of giving those skilled in the art a better understanding of the invention, the following illustrative example is given as to the manufacture of the invention.

EXAMPLE

A load of reject tubing was obtained from a television antenna manufacturer. This tubing consisted of odd pieces which had either been rejected during the seam welding operation and inspection or consisted also largely of cutoff end pieces too small to be of any use. These reject pieces were then cut to useable size to define a door knob grip section to grip any door and a lever handle section between 6 to 10 inches. The sizes need not be uniform so as to lessen the manufacturing operation and to make greater use of the reject tubing pieces. The individual workpieces tubing were then marked by eye with a colored pencil so as to define the door knob grip section and the handle section and the junction. The tubing was then cut radially at the junction leaving only a narrow strip connecting both sides of the tubing. The defined door grip section was then cut longitudinally opposite the connecting strip so as to open up the tubing. Teeth were then cut along the edges of the defined door knob grip section except at the inner and outer ends of this defined section which were then flattened by a press. Apertures were then drilled in these flattened sections and a bolt was passed through and a nut placed on the open end of the bolt. A small plastic end cap was then placed on the end of the lever handle to finish the workpiece.

Although the device of this invention has been particularly described about, it is obvious that modifications and variations of the invention are possible.

I claim:

1. An easy door opener comprising in combination:
   a. a door knob grip section (13) having an elongated thin strip of resilient material having an open inverted U-shaped cross section with substantially parallel edges (19, 21) and inwardly curved;
   b. flat inner and outer ends (25, 27) on said elongated thin strip;
   c. a plurality of teeth (13) extending between said inner and outer ends (25, 27) along the edges (19, 21) of said elongated thin strip;
   d. a threaded member (29) extending across between said flat inner and outer ends (25, 27) including threadable means (31) thereon to increase or decrease the distance between said inner and outer ends;

e. a junction (32) defined on said inner end; and,

f. a lever handle (33) extending outwards from said junction, whereby said door knob grip section can be fastened to a door knob by tightening said threaded member and the door knob can then be readily turned using said lever handle.

2. An easy door opener as claimed in claim 1, said teeth having a generally rectangular configuration.

3. A device as claimed in claim 1, wherein said handle has a tubular configuration, said junction comprising a thin strip joining said door knob grip section and said lever handle.