Aug. 20, 1940. E. H. RUST 2,212,129

CAN RACK

Filed Dec. 6, 1938

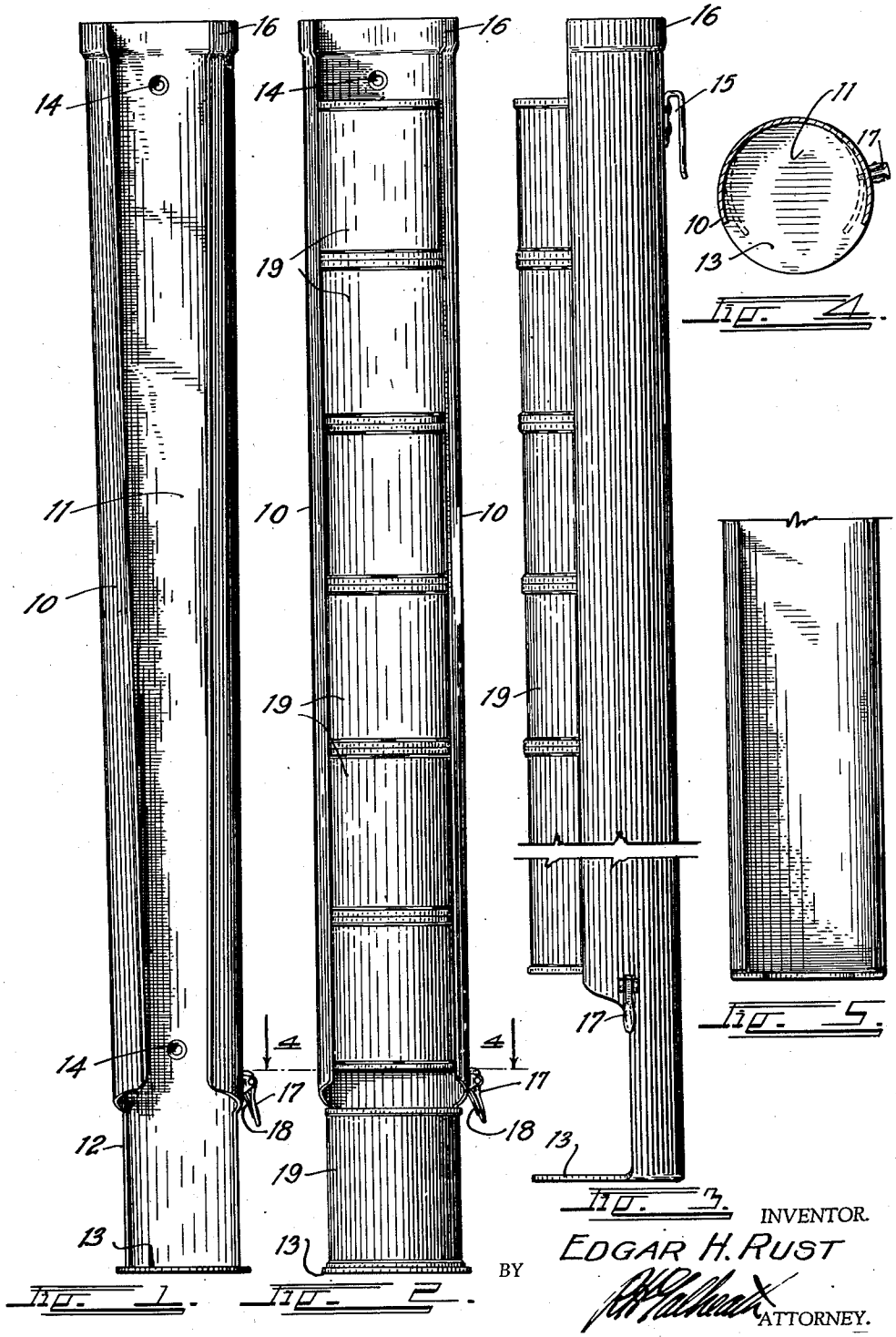


Fig. 1. Fig. 2. Fig. 3.

Fig. 4.

Fig. 5.

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Patented Aug. 20, 1940 2,212,129

UNITED STATES PATENT OFFICE

2,212,129

CAN RACK

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Application December 6, 1938, Serial No. 244,207

2 Claims. (Cl. 312—48)

This invention relates to a can rack and is more particularly designed for use in automobile service stations, filling stations, etc., for holding and dispensing cans of lubricating oils and greases.

The principal object of the invention is to provide a rack which will firmly and securely support a vertical pile of cans of any desired heighth in such a way that the lowermost can of the pile can be conveniently removed at will.

Cans of lubricating oil are relatively heavy and due to their weight it would ordinarily be extremely difficult to remove the bottom can from a high pile. Another object of this invention is to so construct the device so that the weight of the cans will be counter-acted so that but little weight will be resting upon the lowermost can of the pile.

Further objects of the invention are to provide means for supporting the pile after the lowermost can has been removed; and to provide a construction which can be easily or readily attached to or suspended from walls or other supporting structures, and which will enable the labels upon the pile of cans to be visibly displayed at all times for advertising purposes.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:

Fig. 1 is a front view of the improved can rack with the cans removed therefrom.

Fig. 2 is a similar view with the cans in place therein.

Fig. 3 is a side view of the filled can rack.

Fig. 4 is a cross section taken on the line 4—4, Fig. 2.

Fig. 5 is a fragmentary view of an alternate form of rack.

The invention comprises a sheet metal plate shaped to form a partially enclosed tubular portion 10 having an open front 11 of a width equal to almost one-half the circumference of the tube. The tube 10 is formed of resilient metal so that it may be expanded to receive its contents. The tube is rolled on a tapered contour so as to have a smaller normal diameter at its bottom than at its top, as shown in Fig. 1.

The tube is rolled to form an enlarged bell-like upper extremity 16. The bottom portion of the tube is cut back at the sides, as shown at 12 to a width of less than half the circumference and the cut back portion terminates in a bottom shelf 13. It may be supplied with countersunk holes 14 by means of which it may be screwed to the wall or any other suitable supporting structure or it may be furnished with hooked members 15 which may be hooked to a supporting structure.

The tube is provided with a hinged spring latch 17 near its bottom, the point of which extends inwardly into the interior of the tube. A suitable spring 18 acts to constantly urge the upper extremity of the latch inwardly.

The rack is designed to support a vertical pile of similar cans 19 having a diameter slightly less than the normal diameter of the bell portion 16. Thus, when the cans are forced into the tube, they will expand it into the position shown in Fig. 2 so that it will frictionally engage the cans to prevent them from dropping freely through the tube.

The normal taper of the tube is such that the lowermost cans of the pile, which of course, support the most weight will have the greatest frictional engagement with the tube so that the entire pile will be almost completely supported by the gripping action of the tube.

In use, the cans are placed in the tube as shown in Fig. 2. Whenever a can is desired, the operator releases the latch 17 allowing the lowermost can to descend to the shelf 13. It may be necessary to push the lowermost can downwardly should the gripping action of the tube be sufficient to prevent its descending by gravity. He then releases the latch 17 to prevent the remaining cans from descending until desired.

In Fig. 4, the normal position of the tube when the cans are not in place is indicated in broken line. Whereas the gripping position when the cans are in place is indicated in solid line. The resiliency of the tube is such that the operator may pull any of the cans from the pile directly forward allowing the tube to snap closed about the remaining cans.

In Fig. 5 an alternate form of the invention is illustrated consisting of a straight sided, vertical tube 20, also of resilient material such as spring steel, having an open front slot 21. The tube continues downward to a bottom shelf 22. There is no cut-away portion for withdrawal of the cans. With such a tube a can is removed by simply pulling it forwardly through the slot 21.

The can acts to spring the two sides of the slot apart and the latter spring closed on the remaining cans after the desired can is withdrawn.

While a specific form of the improvement has been described and illustrated herein, it is desired to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

Having thus described the invention, what is claimed and desired secured by Letters Patent is:

1. A can rack consisting of a sheet of resilient material rolled to form an open tubular passage, for receiving a vertical pile of cans, said sheet extending over one-half the circumference of the tubular passage the remainder of the circumference thereof being open, said passage having a normal diameter less than the diameter of the cans to be placed therein so that the tube will exert a frictional gripping action on the cans of the pile to partially support the weight thereof; and a latch member in the path of the lowermost can of the pile, said latch being manually withdrawable to allow said pile to gravitate under the influence of said remaining weight.

2. A can rack consisting of a sheet of resilient material rolled to form an open tubular passage, for receiving a vertical pile of cans, said sheet extending over one-half the circumference of the tubular passage the remainder of the circumference thereof being open, said passage having a normal diameter less than the diameter of the cans to be placed therein, said tube being continuously tapered and having a greater normal diameter adjacent its upper portion than adjacent its lower portion; so that the frictional gripping action of the tube on the pile of cans will increase as the bottom of the tube is approached; and a manually operated, spring actuated latch supporting the lowermost can of said pile.

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