Dec. 5, 1933. W. T. MEAD 1,937,975

CAN PUNCTURING DEVICE

Filed Jan. 27, 1932

Fig. 1

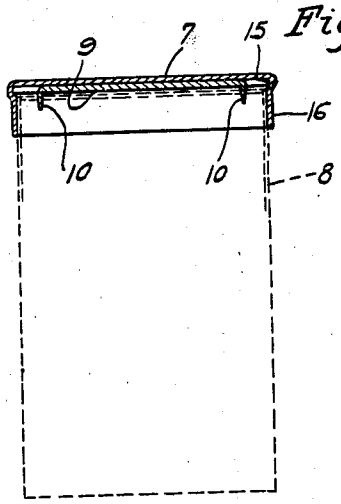


Fig. 2

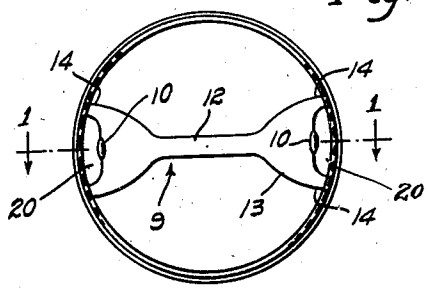
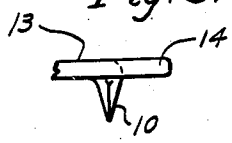


Fig. 3.



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CAN PUNCTURING DEVICE

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2 Claims. (Cl. 220—51)

This invention relates to a can puncturing device which is intended for use as a means of puncturing cans containing liquid goods in such a manner that the contents of the cans may be readily drained therefrom.

An object of the invention is to provide an exceedingly simple device of the character stated the portion thereof which performs the puncturing operation being adapted for stamping out by the progressive strokes of a cutting and forming die, the remaining portion of the device being readily formed by the use of can making machinery now on the market.

Another object of the invention is to provide a can puncturing device which will also be adapted for use as a closure means to prevent the entrance of air into the can through the openings which have been punctured thereinto, thus preserving the partly used contents of the can in a more effective manner.

Still another object of the invention is to provide a very small compact device which can be kept in place upon the can which it has been used to open and will not materially add to the space occupied by such can.

Other objects, advantages and features of the invention may hereinafter appear.

Referring to the accompanying drawing which illustrates what is at present deemed to be a preferred embodiment of the invention,

Fig. 1 is a vertical mid-section of the device showing the same in place upon a can after the puncturing operation has been performed, the outline of the can being indicated in broken lines. The line 1—1 on Fig. 2 indicates the line of section in this view.

Fig. 2 is a plan view of the device looking at the inside thereof.

Fig. 3 is an enlarged side elevation of an end portion of the device to illustrate more clearly the puncturing element.

Referring in detail to the drawing, the device comprises a holder 7 desirably shaped similarly to the lid of the can 8 which is to be opened but said holder is of a slightly greater diameter than that of the can in order that it may be placed over the end portion thereof with a working fit. Within said holder 7 is placed the puncturing member 9 preferably a rigid bar which is provided at each end with a spur 10 which is adapted to perform the puncturing operation.

Said bar 9 is shown preferably provided with a relatively narrow central portion 12 and a wider or expanded portion 13 at each end thereof. Each of said expanded portions 13 are desirably of the same design and terminate in short arms or extensions 14, the laterally directed spur 10 being located mid-way between said extensions 14.

The distance between the extension 14 at one side of the device and the diametrically opposite extension 14 is such that the extremities of all the extensions 14 fit snugly within a channel 15 which is provided by bending the flange 16 of the holder element 7 as shown in Fig. 1. By clamping the flanged portion of said holder element 7 down upon the extremities of the extensions 14 as illustrated a secure means is provided for retaining the puncturing element in its operative position. It will be observed that opposite each end of the bar 9, a clearance 20 is provided, the depth of said clearance being sufficient to prevent the spurs 10 from coming too close to the side wall of the can to be punctured when the device is in operative position upon the end of such can.

Owing to the fact that the bar 9 is stamped out of a sheet or plate of metal and the spurs 10 are each located at edge portions of said bar, the die for stamping out the bar and forming the spurs is of a simpler character than would be required if the spurs were otherwise formed. Furthermore by locating the spurs at edge portions of the bar the bar is not weakened as it would be if the formation of the spurs involved the formation of punctures through the bar.

In the operation of the device the holder 7 is put in place over the end portion of the can but its movement over the can is temporarily arrested by reason of the points of the spurs 10 engaging the upper end of the can. With the device in this position it is only necessary to strike the top of the device with sufficient force to puncture the can to be opened by means of the spurs 10. By this means two diametrically opposite openings are provided in the top of the can, one serving as a liquid outlet opening when the liquid is dispensed and the other as an air inlet opening.

I claim:

1. As an article of manufacture, a bar of sheet metal for a can puncturing device comprising corner portions or extensions at the end edges of said bar arranged in pairs with a recess between the members of each pair, and a laterally extending puncturing spur struck out toward the same side of said bar.

2. As an article of manufacture, a bar of sheet metal for a can puncturing device comprising corner portions or extensions arranged in pairs at the end edges of said bar with a recess between the members of each pair, and a laterally extending puncturing spur struck out toward the same side of said bar, said spurs being located at substantially the middle of the edge portion of said recesses.

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