April 11, 1950 G. G. PERKINS 2,503,683

SCREW CAP LOOSENER

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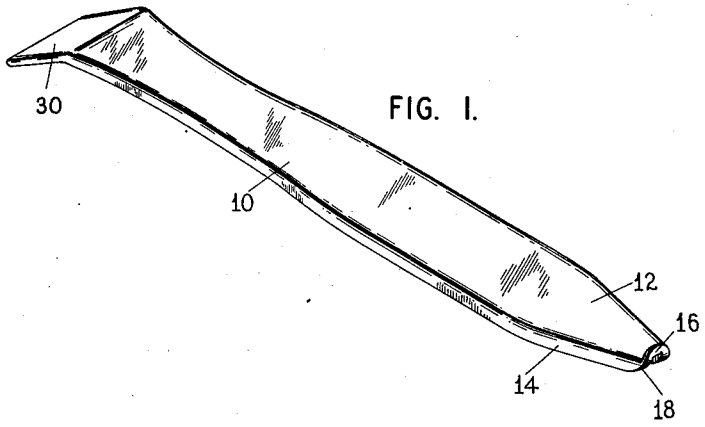


FIG. 1.

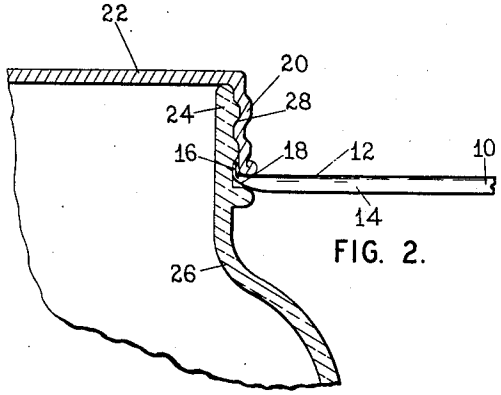


FIG. 2.

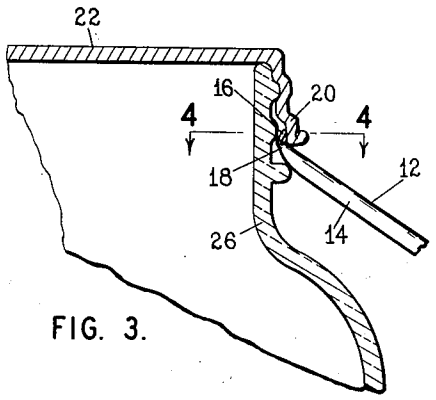


FIG. 3.

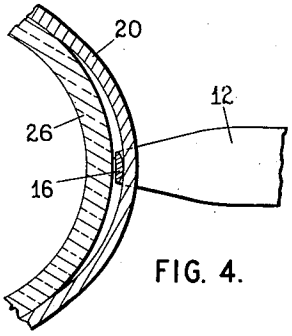


FIG. 4.

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SCREW CAP LOOSENER

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2 Claims. (Cl. 81—3)

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This invention relates to a hand tool designed to loosen the screw caps of jars which have become bound or stuck and are difficult to unscrew. Caps of this type comprise disks which cover the mouth of the jar and a skirt which is integral with the disk and embraces the screw-threaded neck of the jar adjacent to the mouth. It frequently happens that after a cap has been screwed on tightly, rusting of the cap or crystallization of some of the contents of the jar causes the cap to stick so as to resist any effort to unscrew the cap from the mouth of the jar.

According to the present invention, a simple tool is provided to catch under the skirt and to pull the skirt outwardly and downwardly so as to break the seal which causes the cap to stick and, thus, to facilitate the unscrewing of the cap from the jar.

For a more complete understanding of the invention, reference may be made to the following description thereof and to the drawing, of which:

Figure 1 is a perspective view of a tool embodying the invention;

Figure 2 is a fragmentary, sectional view of a jar and screw cap, showing the working portion of the tool in its initial position for operation;

Figure 3 is similar to Figure 2 except that it shows the tool in a later position of operation; and

Figure 4 is a sectional view on the line 4—4 of Figure 3.

The tool may be made conveniently of a single strip of hard metal, such as iron or steel, and of substantial thickness for rigidity. As shown in Figure 1, the tool may have a handle portion 10. The operative end portion 12 of the strip is tapered toward its extremity and is divided with down-turned edge flanges 14 which serve to stiffen the end portion 12. If desired, the side flanges 14 may be continued throughout the entire length of the tool, as indicated in Figure 1. The tip or extremity 16 of the end portion 12 is bent sharply upward, forming a nose which is substantially at right angles to the plane of the tapered portion 12. The contour of the nose 16 is rounded, the edge of the nose merging on both sides, as at 18, with the edges of the flanges 14. These edges at 18 are rounded and serve as a fulcrum when the tool is in use.

The nose 16 is flattened somewhat so that it is thinner than the stock thickness of the tapered portion 12. When the tool is to be used, the nose 16 is thrust up under the lower rim of the skirt 20 of the screw cap 22. The screw cap is screwed onto the threaded neck 24 of a jar or bottle 26. The usual jar of this type is provided with a screw thread on its neck comprising one

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or, at most, two complete turns. When the cap 22 is set up tightly on the neck of the jar, it is evident that it is held thereon by tight pressure, as at 28, between the lower side face of the screw thread on the bottle neck and the upper side face of the interior thread of the screw cap. Hence, when the tool is rocked downward, as indicated in Figure 3, the curved end edges 18 of the flanges act as a fulcrum to cause the ear 16 to move outward and downward. The ear catches on the inner surface of the skirt 20 and pulls it outward and downward, thus tending to lengthen the skirt and breaking it away from the line 28 of greatest pressure. If rust or crystallization has sealed the screw cap to the jar neck, this action of the tool breaks such a seal and releases the cap. The effects of a single such operation of a tool are somewhat local, so that to be effective, the tool should be caught under various spaced points of the cap around the circumference of the skirt. When this has been done, the cap can be readily unscrewed.

At the end of the tool remote from the nose 16, any desired other tool may be formed. As shown, a small stiff blade 30 is provided, chiefly for use in prying off friction-sealed lids of containers.

I claim:

1. A tool for loosening screw caps on jars, which comprises a handle having at an end thereof a tapered strip of stiff metal with down-turned lateral flanges and an upturned nose at the extremity thereof, said nose extending approximately at right angles to the plane of the tapered strip and being thinner than the stock thickness of the strip.

2. A tool for loosening screw caps on jars, which comprises a rigid metal strip having a handle portion and a tapered end portion terminating in a short thin nose bent up at right angles to the tapered portion, said tapered portion of the strip having downwardly bent side flanges, the edges of which curve near the nose to meet the side edges of the nose and to serve as a fulcrum when the tool is used.

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