March 16, 1954 I. H. SIMMONDS 2,672,257

MAGNETIC CONTAINER CAP

Filed April 18, 1950

Fig. 1.

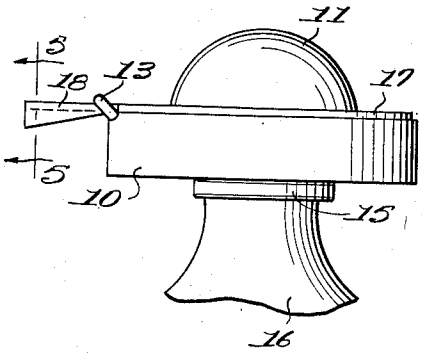


Fig. 3.

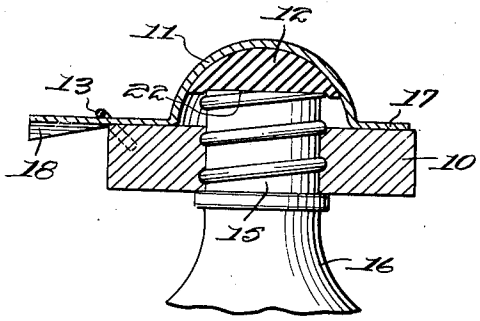


Fig. 2.

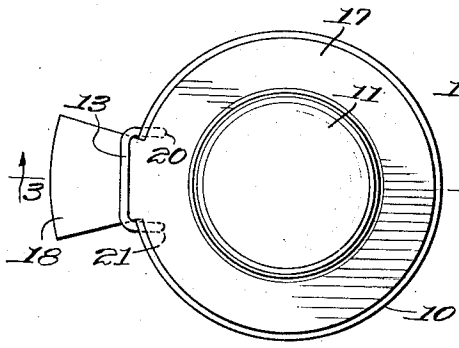


Fig. 4.

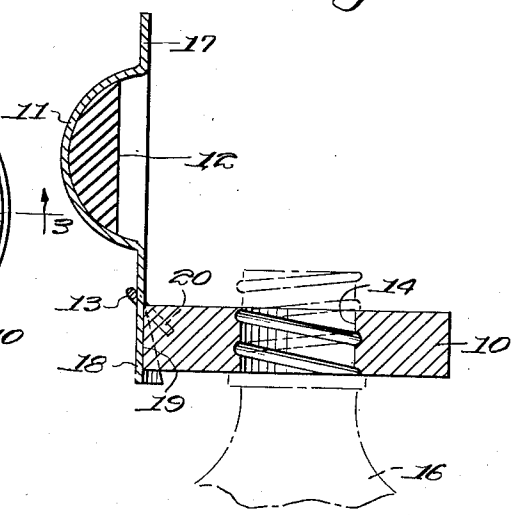


Fig. 5.



INVENTOR.

Irving H. Simmonds,

BY Victor J. Evans & Co.

ATTORNEYS

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MAGNETIC CONTAINER CAP

Irving H. Simmonds, Belleville, Ill.

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1 Claim. (Cl. 220—32)

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This invention relates to caps for bottles, jars, cans and other containers, and in particular includes a magnet providing a base threaded on the neck of a container, and a cap hinged to the base and formed of material having magnetic attraction whereby the magnetism of the base holds the cap in the position of closing the end of the container.

The purpose of this invention is to provide a cap that is held in the closed position by magnetic attraction, and that is not readily lost from the container.

Various types of permanently attached caps have been provided for containers but with tubes of the collapsible type it is necessary to provide a cap which when open does not interfere with the egress of paste or the like from the tube. With this thought in mind this invention contemplates a cap threaded on the end of a container neck wherein a magnetic base is positioned on a threaded nipple at the end of a container and a closure cap, hinged to the base is held in the closed position by the magnetism of the base.

The object of this invention is, therefore, to provide means for forming a magnetic cap for containers wherein the cap remains in position on the end of the container and may be opened and closed as desired.

Another object of the invention is to provide a magnetic cap for containers that remains on the container until the material is used from the container and which may then be used on additional containers.

A further object of the invention is to provide a cap for containers that is held in the closed position by a permanent magnet incorporated in the cap which is of a simple and economical construction.

With these and other objects and advantages in view the invention embodies a disc magnetized to provide a permanent magnet and having a threaded opening for receiving a nipple at the end of a container, and a cap having a sealing gasket therein hingedly mounted on the disc and held thereto by the magnetism of the disc.

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 magnetic cap positioned on the end of a container neck.

Figure 2 is a plan view of the cap shown in Figure 1.

Figure 3 is a vertical section through the cap taken on line 3—3 of Figure 2.

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Figure 4 is a similar section showing the cap in the open position.

Figure 5 is a detail showing the shape of the finger gripping handle of the cap being taken on line 5—5 of Figure 1.

Referring now to the drawings wherein like reference characters denote corresponding parts the magnetic container or tube cap of this invention includes a base 10, a cap 11, a sealing gasket 12, and a staple 13 and the staple provides a hinge for hingedly mounting the cap on the base.

The base 10 is magnetized to provide a permanent magnet and a threaded opening 14 extends through the base for receiving the threaded nipple 15 of a collapsible tube 16.

The cap 11 is formed with a semi-spherical centrally disposed section and a flange 17 which extends around the edge thereof is positioned to contact the upper surface of the permanent magnet or disc 10. The cap 11 is provided with a handle 18 that extends from one side and the handle, which is arcuate in cross section, as illustrated in Figure 5, is positioned to fit snugly against the surface 19 of the permanent magnet or base 10 with the cap open whereby the cap is retained in the opened position by the magnet. The cap is held in position by the U-shaped staple 13, the ends 20 and 21 of which are embedded in the base, or secured thereto by any suitable means.

The sealing gasket 12, which is preferably formed of rubber is cemented in the centrally disposed section of the cap 11 whereby as the cap is drawn to the closed position by the magnetism of the permanent magnet or base 10, the gasket seals the end 22 of the nipple 15, as shown in Figure 3.

The base 10 is formed of magnetic material, or it may be formed of plastic with permanent magnets inserted therein and the cap 11 may also be formed of material having magnetic attraction or it may be formed of plastic with material having magnetic attraction incorporated therein.

With the parts formed in this manner the base 10 of the cap is threaded on the threaded nipple at the end of a container or tube and with the cap 11 in the closed position the end of the tube is sealed by the gasket 12. When it is desired to use paste from the tube the handle 18 is pressed downwardly by the thumb or forefinger and the cap is retained in the open position as shown in Figure 4. After the material has been used from the tube it is only necessary to flip the cap over

wherein the magnetism of the base 10 draws the cap downwardly to the closed position illustrated in Figures 1 and 3.

It will be understood that although the magnetic cap of this invention is disclosed as used on collapsible tubes it may be used on bottles, jars, cans, or other containers.

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:

In a container closure, the combination which comprises a permanent magnet in the form of a disc having a threaded opening therethrough and having a staple extended at one side, a cap having a dome shape central portion with a circular flange extended from the said dome shape section and having a handle having an enlarged arcuate shaped portion and a reduced portion extended from the flange and positioned through the staple carried by the magnet, said flange positioned to contact the surface of the magnet and having magnetic attraction, and a sealing gasket mounted in the dome shape section of the cap and positioned to seal the end of the threaded nipple of a container extended through the threaded opening of the magnet.

IRVING H. SIMMONDS.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
712,447	Woolley	Oct. 28, 1902
1,986,271	Keith	Jan. 1, 1935
2,111,186	Jenks	Mar. 15, 1938
2,142,636	Evensen	Jan. 3, 1939
2,147,482	Butler	Feb. 14, 1939
2,453,021	Konelsky	Nov. 2, 1948
2,542,987	Brock	Feb. 26, 1951