Jan. 24, 1950 J. N. AMIGONE 2,495,308

GRIPPER-TYPE CORK EXTRACTOR

Filed June 15, 1948

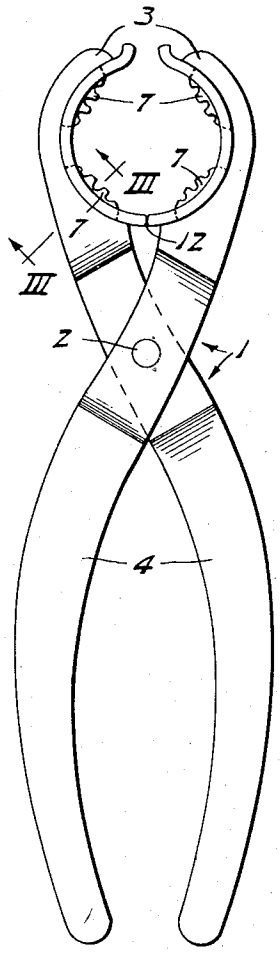



Fig. 1.

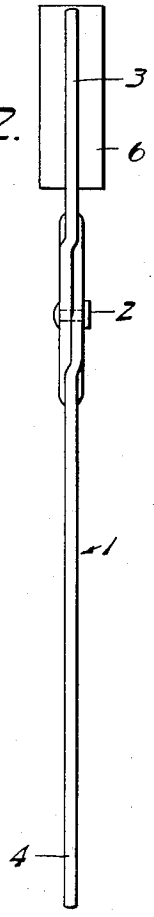



Fig. 2.

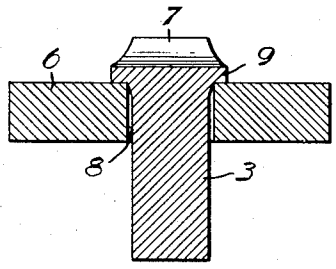



Fig. 3.

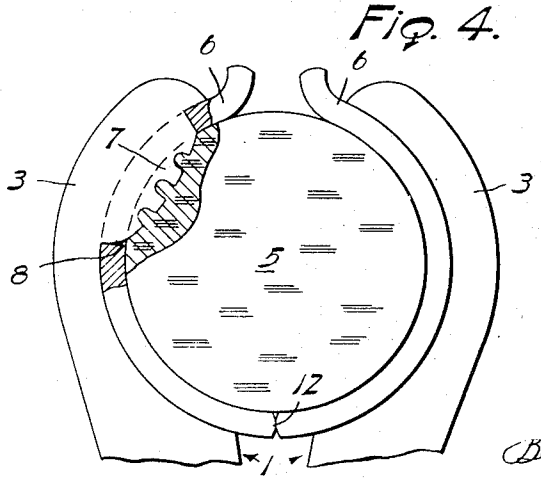



Fig. 4.

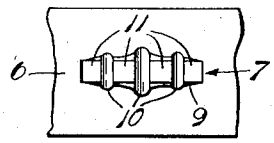



Fig. 5.

INVENTOR
Joseph N. Amigone
BY
Bean, Brooks, Buckley & Bean
ATTORNEYS

Patented Jan. 24, 1950

2,495,308

# UNITED STATES PATENT OFFICE

2,495,308

## GRIPPER-TYPE CORK EXTRACTOR

Joseph N. Amigone, Buffalo, N. Y.

Application June 15, 1948, Serial No. 33,051

6 Claims. (Cl. 81—3.44)

1

This invention relates to certain new and useful improvements in the stopper extractor art and has particular reference to the plier type of extracting tool or implement by which the cork may be gripped and a lifting torque applied to remove the stopper from a container. The invention is especially adapted for opening champagne bottles and other containers in which the cork or stopper normally protrudes and may therefore be grasped.

The primary object of the invention is to provide a simple and economically designed extractor which is practical and efficient in use and one which will effectively grip the cork to facilitate its removal.

A further object is to provide an extractor which will grasp the cork in a firm manner but without destruction or mutilation of its body thereby to preserve its period of subsequent usefulness.

The foregoing and other objects will manifest themselves as the description progresses, reference being made to the accompanying drawing wherein

Fig. 1 is a plan view of a cork extracting tool embodying the present invention;

Fig. 2 is a side elevation thereof;

Fig. 3 is a cross sectional view taken about on line III—III of Fig. 1;

Fig. 4 is an enlarged view, partly in section, which shows more clearly the utility and functioning of the extractor; and

Fig. 5 is a fragmentary view showing one of the cork embedding lugs.

Referring more particularly to the accompanying drawing, the numerals 1 designate the two plier or gripping members arranged across each other and pivotally connected intermediate their ends by a pin 2 to form a pair of hand levers having grasping jaws 3 and relatively longer handles 4. The members 1 may be metal stampings and the jaws shaped generally to conform them to the cross sectional contour of the cork or stopper 5. Each has a relatively broader cork embracing face 6, for conformably grasping the stopper, and one or more marginal lugs 7 that project inwardly from the embracing face to penetrate the yieldable stopper body to the maximum depth permitted by the embracing face. Each embracing face, which preferably is otherwise smooth, therefore serves as and constitutes a depth gauge for determining the maximum penetration of the lugs. The extent of maximum penetration is predetermined to preclude impairment and tearing of the stopper body. Its period

2

of usefulness is thereby prolonged and its life is preserved for subsequent usage.

The embracing faces 6 are preferably in the form of arcuate plates, and the embedding lugs 7 preferably constitute inward extensions from the body portions of the jaw 3 which lugs protrude through recesses or openings 8 in the arcuate plates for being swaged over, as at 9, to secure and make permanent the established interlock. The lugs may be elongated and shaped to impart a convexity to the rib-like projections which latter may be transversely serrated or grooved at 10 to form an arcuate series of embedding teeth 11. These teeth bite into the stopper body to effectively grip the same. However, the depth of the tooth penetration is limited by the embracing faces. The stampings 1 have the embedding lugs 7 produced during the initial stamping operation and since the lugs lie in the plane of the stamped body the hand pressure applied to the handles is directly transmitted in such plane to the lugs in a firm manner.

The extractor is primarily designed to open champagne bottles and other containers from which the stopper protrudes and is used by grasping the peripheral face of the stopper and turning the latter with a lifting effort in effecting its complete withdrawal. The gripping force is limited, against crushing and destroying the cork body, by having the arcuate plates abut each other at their inner ends, as indicated at 12. This limiting provision will arrest the squeezing action of the pliers upon the cork. The outer ends of the arcuate plates are rounded outwardly, as at 13, and spaced apart to provide clearance into which the yieldable stopper body may expand.

The stopper extractor is simple and sturdy of design, economical in construction, and practical in use, and while the foregoing description has been given in detail it is without thought of limitation since the inventive principles involved are capable of assuming other physical embodiments without departing from the spirit of the invention and the scope of the appended claims.

What is claimed is:

1. A stopper extractor comprising a pair of jaw-forming stampings pivotally connected to form a pair of stopper grasping jaws and a pair of jaw actuating handles, each stamping having a marginal lug projecting from the jaw and in the body plane of the stamping, opposing stopper embracing plates of arcuate form to conformably grip the peripheral face of a stopper and each having a circumferential slot receiving the respective lug, the lug protruding and shaped with

embedding teeth extending transversely of the associated slot and overlying the margin of the latter to anchor the plates to the grasping jaws.

2. A stopper extractor comprising a pair of members pivotally connected intermediate their ends to form a pair of stopper grasping jaws and a pair of jaw actuating handles, the two jaws carrying opposing stopper embracing plates of arcuate form to conformably grip the peripheral face of a stopper, each jaw having a stopper engaging lug projecting through a recess in the adjacent arcuate plate to project therefrom and also interlock with the plate to secure the latter upon the jaw.

3. A stopper extractor comprising a pair of stopper grasping jaws curved and movably connected for grasping a stopper to remove it from a container, stopper embracing plates seating upon the inner curved faces of the jaw, each plate having a recess, and a lug integral with each jaw and extending through the plate recess and deformed beyond the face of the arcuate plate for anchoring the latter in position on its jaw and also for embedding in a stopper within the grasp of the plates, the outer ends of the plates being rolled outwardly to space them apart when grasping a stopper and the inner ends of the arcuate plate abutting one another to limit the stopper grasping effort applied by the handles to such stopper.

4. A stopper extractor comprising a pair of stopper grasping jaws curved and movably connected for grasping a stopper to remove it from a container, stopper embracing plates seating upon the inner curved faces of the jaw, and means securing the embracing plates to the jaws and constituting stopper embedding lugs projecting inwardly from the plates.



5. A grasping tool comprising a pair of jaw forming stampings having a marginal lug lying in the body plane of each stamping, and an article embracing plate transversely arranged across the jaw forming edge and having an opening through which the lug protrudes for providing a jaw face, the protruding lugs being deformed to extend over the inner faces of the plates to secure them in position.

6. A grasping tool comprising a pair of jaw forming stampings having a marginal lug projecting from a jaw forming edge and in the body plane of each stamping, and an article embracing plate transversely arranged across the jaw forming edge and having an opening through which the lug protrudes for providing a jaw face, the protruding lugs being distorted to overlie the inner faces of the plates and providing a raised arcuate penetrating rib.

JOSEPH N. AMIGONE.


REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

| Number | Name | Date |
|---|---|---|
| 590,710 | Sheppard | Sept. 28, 1897 |
| 1,014,529 | Slusser | Jan. 9, 1912 |
| 1,361,639 | Stevenson | Dec. 7, 1920 |
| 1,366,871 | Calkins | Jan. 25, 1921 |
| 1,435,376 | Butler | Nov. 14, 1922 |
| 1,910,750 | Clark | May 23, 1933 |