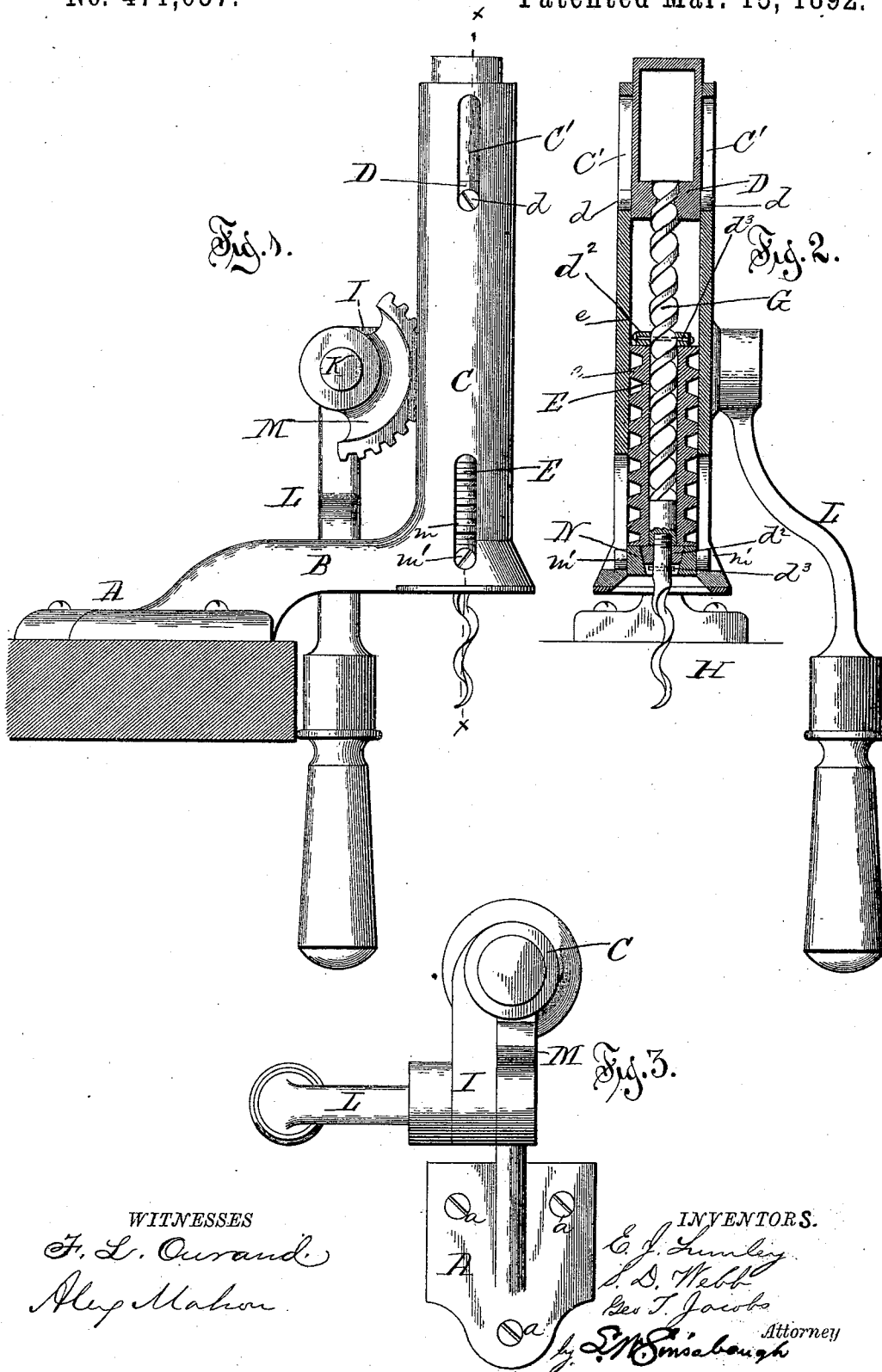


(No Model.)

E. J. LUMLEY, S. D. WEBB & G. T. JACOBS.
 DEVICE FOR REMOVING CORKS FROM BOTTLES.

No. 471,057.

Patented Mar. 15, 1892.



WITNESSES
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UNITED STATES PATENT OFFICE.

EDWIN J. LUMLEY, SAMUEL D. WEBB, AND GEORGE T. JACOBS, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, TO THE NATIONAL CORK EXTRACTOR COMPANY, OF WEST VIRGINIA.

DEVICE FOR REMOVING CORKS FROM BOTTLES.

SPECIFICATION forming part of Letters Patent No. 471,057, dated March 15, 1892.

Application filed March 14, 1890. Renewed February 9, 1892. Serial No. 420,903. (No model.)

To all whom it may concern:

Be it known that we, EDWIN J. LUMLEY, SAMUEL D. WEBB, and GEORGE T. JACOBS, citizens of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Devices for Removing Corks from Bottles; and we do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention relates to that class of cork-extractors known as "power-extractors."

The invention consists in combining in a cork-extractor a tooth-plunger having a screw carrying the cork-worm mounted and adapted to turn therein, but held endwise relative to each other, and a nut for engaging the screw to revolve same.

The invention further consists in combining with the toothed plunger or cylindrical rack, of a double-threaded nut having projecting lugs to engage guideways or slots in a stationary cylindrical case, with which threaded nut a double-threaded screw, connected to or formed with the cork-worm engages, whereby the rack, screw, and cork-worm may travel back and forth the length of the slot without being revolved and by the engagement of the lugs with each end of the slot to communicate a revolving movement to the cork to engage, draw, and discharge the cork in the movement of the segmental rack carried by the lever.

The invention further consists in certain novel features in the construction and arrangement of parts, all as hereinafter explained.

In the accompanying drawings, Figure 1 is a side elevation of the device complete. Fig. 2 is a transverse vertical section on the line $x x$, Fig. 1. Fig. 3 is a top or plan view.

A base by which the device is secured to the table, shelf, or other point consists of the flat portion A, with screw-holes a therein, and from which base extends an arm B, preferably formed integral with said base, and on the end of this arm is formed or otherwise

connected a cylindrical case C, in which the operating parts, hereinafter referred to, are mounted. The case C on each side, at points diametrically opposite each other, is provided with elongated slots C' , and mounted to slide within the case is a double-threaded nut D, engaged with the case through the slots by means of lugs d , secured to the nut, and which lugs are adapted to move back and forth in the slots. Also mounted in the case and below the guide is a toothed plunger or cylindrical rack E, having the teeth e either to extend around its entire periphery or for a portion of the distance, as shall be found most convenient, and mounted within this toothed plunger or cylindrical rack E is a double-threaded screw G, secured thereto in an endwise direction by collars d^2 and pins d^3 or in any other convenient manner, but adapted to turn freely therein, and connected to this double-threaded screw G is the cork-worm H of a single thread or twist, the pitch of the single thread being equal to the pitch of the double-threaded screw, so that one revolution of the screw will impart one revolution to the cork-worm.

Formed with or otherwise connected to the stationary case and projecting rearwardly therefrom is a bearing-lug I, and mounted therein is a shaft K, carrying on one end an operating-lever L and on the other a segmental toothed rack M to engage the cylindrical rack E, the cylindrical case being cut open or slotted at the proper point to permit such engagement.

The cylindrical case at its lower end is made flaring, and slightly above the flaring portion the case is provided with elongated slots m , and arranged diametrically opposite each other, as in the case of the slots C' , and being arranged preferably in line with said slots and mounted to move within the case is a disk N, having a central perforation for the passage of the cork-worm. This disk N is secured to move in the slots m through lugs m' , connected therewith by having their ends screw-threaded, as described in reference to the lugs d for connecting the nut D with the case.

The operation of the device is as follows: When it is desired to draw a cork, the device stands in such position that the cork-worm is drawn within the cylindrical case with the operating-lever in a horizontal position and with the lugs *d* at the lower ends of the slots *C'*. In this position the bottle is held up into the flaring mouth of the case and the lever is pulled downward, and as the double-threaded nut is held stationary the action of the segmental rack on the toothed rack will carry the plunger downward and by which means cause said nut to impart a revolving movement to the double screw and to the cork-worm and cause the same to be forced into the cork, when by reversing the movement of the lever the plunger will be carried upward, and in which movement the lugs *d* will be forced to travel through the slots *C'* to the upper ends thereof, which acts to extract or draw the cork from the bottle, in which movement the disk *N* has been carried so that the lugs *m'* have reached the upper ends of the slots *m*. A continued upward movement of the lever carries the plunger still further upward, and as the nut *D* is held from turning the double screw is again caused to be re-

volved in a reverse direction to that when engaging the cork and by the engagement of the cork with the disk *N* to withdraw the cork-worm from the cork or discharge the same therefrom.

Having now described our invention, what we desire to secure by Letters Patent is—

In a cork-extractor, the combination of a case, a toothed plunger or cylindrical rack, a double-threaded screw mounted to turn therein, but held endwise relative thereto, having the cork-worm connected to one end thereof, with its upper end projecting out from the plunger or rack, and a double-threaded nut mounted in slotted bearing in the case to engage the projecting end of the screw, and a segmental rack and lever for reciprocating the plunger, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in the presence of two subscribing witnesses.

EDWIN J. LUMLEY.

SAMUEL D. WEBB.

GEORGE T. JACOBS.

Witnesses:

ALEX. MAHON,

H. M. STERLING.