(No Model.)

# C. & E. H. MORGAN.

## CORK EXTRACTOR.

No. 390,183. Patented Sept. 25, 1888.

Fig. 1.

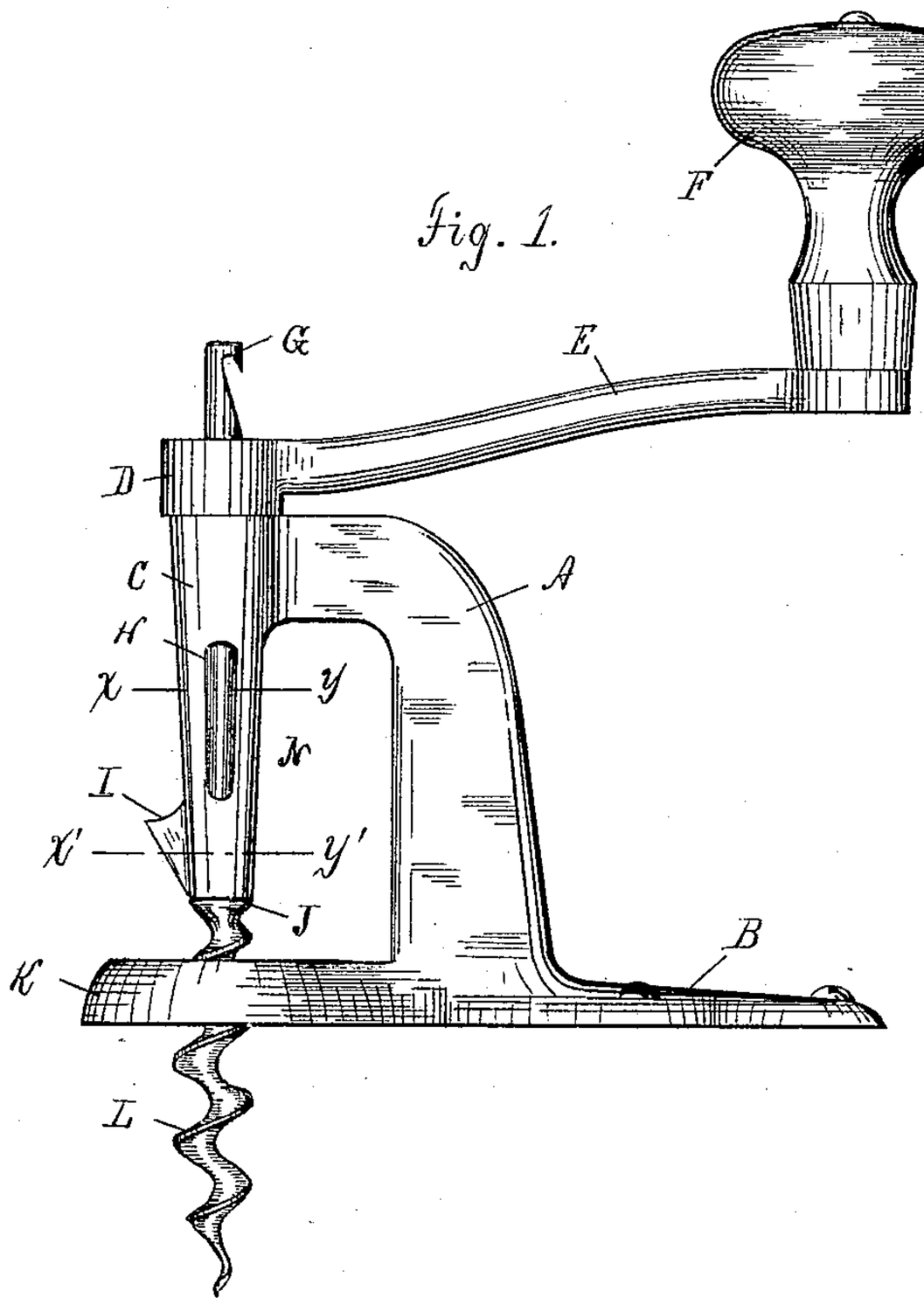



Fig. 2.

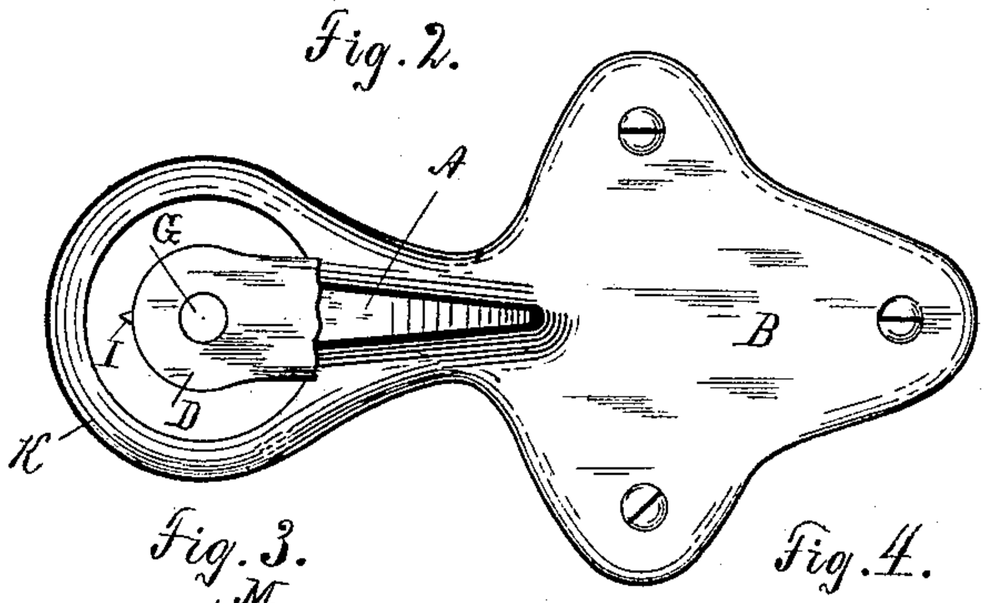



Fig. 3.

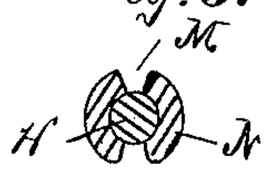
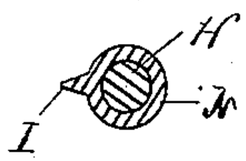



Fig. 4.




Witnesses
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# UNITED STATES PATENT OFFICE.

CHARLES MORGAN AND EDGAR H. MORGAN, OF FREEPORT, ILLINOIS.

## CORK-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 390,183, dated September 25, 1888.

Application filed April 3, 1886. Serial No. 197,700. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES MORGAN and EDGAR H. MORGAN, both residents of Freeport, in the county of Stephenson and State of Illinois, have invented certain new and useful Improvements in Cork-Extractors; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

Our invention is an improved cork-extractor, in which the novelty is in the bearing for the corkscrew and in the means for removing the drawn corks from the corkscrew. In practice it is found that a knife acting from the exterior toward the center of a cork is likely to fail of its object, to grind the cork, allowing small pieces to fall into the bottle, and that a material loss of power occurs. Our device overcomes these difficulties.

In the drawings to which this specification refers, Figure 1 is an elevation of a cork-extractor provided with our improvements; Fig. 2, a plan of the same, the crank by which the corkscrew is operated being broken away. Figs. 3 and 4 are sections, respectively, on the lines $x\ y\ x'\ y'$, Fig. 1.

In Figs. 1 and 2, A is a standard, supporting a bottle-stop, K, and a bearing, C, and is itself supported by means of an integrally-formed plate, B, which is attached to any suitable support. A corkscrew, L, whose shaft H is mounted in the bearing C, passes through the opening in the stop K and extends approximately a cork's length below the upper surface of the stop. The shaft H is rotated by means of a crank, D E F, and terminates in a hook, G, above said crank. The bearing C is provided with an extension, N, reaching nearly to the stop K. The part N is at its lower end of a diameter no greater than that of the spiral portion L of the corkscrew, and serves two distinct purposes—in giving great length of bearing for the corkscrew without increasing the total height of the machine, and in supporting a knife, I. This knife slopes upward and outward from the corkscrew at a point just above the cork at the time it begins to rise from the bottle to a point nearly or quite a cork's radius from the axis of the screw. It is shown as integral with the standard A; but it may be otherwise attached, it being only essential that it shall not rotate with the screw. The spiral L is shown as terminating in a shoulder, J, and we prefer this construction, although it is not indispensable.

Figs. 3 and 4 show the relation of the shaft H, bearing N, and knife I.

The openings M in the bearing N are for convenience in manufacture, and are not concerned in the operation of the machine.

In operation the cork to be drawn is pressed against the point of the corkscrew while the latter is rotated by the crank. As the screw enters the cork, both cork and bottle rise until the latter meets the stop K. The screw being stationary except as to rotation, the cork must now be carried upward by the rotating screw, leaving the bottle and passing over the bearing N, where it is split or ruptured from the screw outward by the inclined edge of the knife I.

We are aware that in a cork-extractor having a longitudinally-fixed corkscrew revolubly mounted in a stationary bearing, and a stop limiting the movement of the bottle, others have combined a corkscrew having the diameter of the upper portion of its spiral less than that of its lower portion, and a pointed lug fixed alongside the upper portion, with its point within the surface elements of the lower portion of the spiral. Such combination we do not claim as any part of our invention.

Having now shown our invention and explained its construction and operation, what we claim is—

1. The combination, with a corkscrew adapted to extract corks by its own rotation without longitudinal movement, of a fixed sleeve inclosing the corkscrew-stem and bearing a cork-rupturing blade whose entire working-edge slopes upward and outward from said sleeve, whereby rotation of the cork with the corkscrew is hindered, while the cork is ruptured by radial outward force alone.

2. The combination, with the crank-actuated corkscrew H L, supported by the standard A, of the fixed stop K, the sleeve N, rigidly

connected with said standard and inclosing the corkscrew-stem, and the blade I, fixed to said sleeve, said sleeve being of approximately the same diameter as the spiral portion of said corkscrew, and the entire working-edge of said blade sloping upward and outward, whereby the cork may be ruptured from within outward, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

CHARLES MORGAN.
EDGAR H. MORGAN.

Witnesses:
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