(No Model.) 2 Sheets—Sheet 1.

F. MOOG.

APPARATUS FOR DECANTING BOTTLES.

No. 485,050. Patented Oct. 25, 1892.

FIG-1-

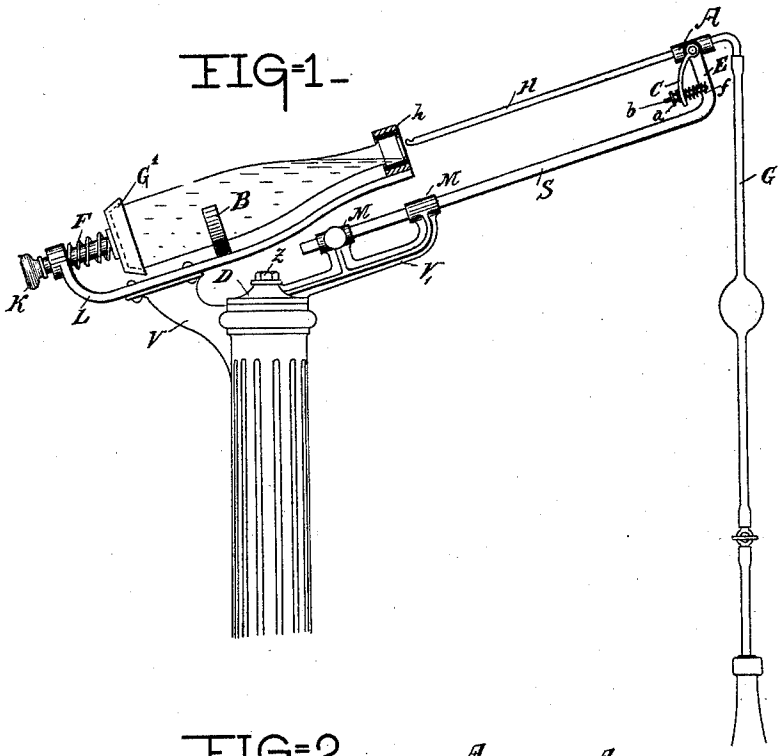
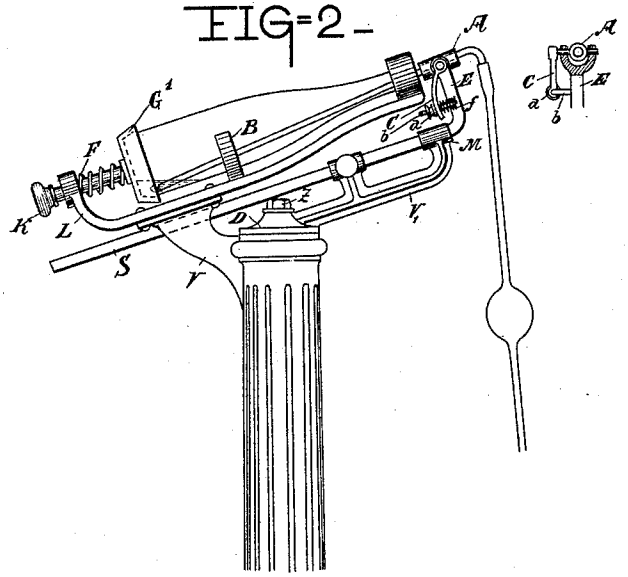


FIG-2-



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Inventor:
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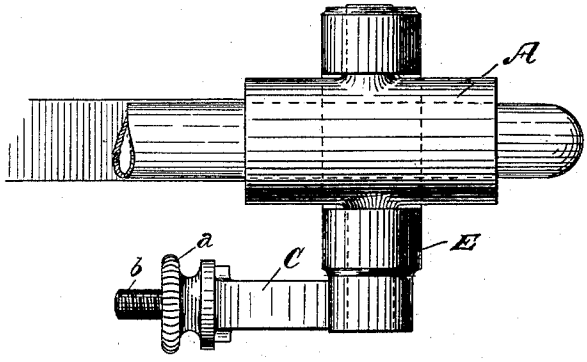
(No Model.) 2 Sheets—Sheet 2.

F. MOOG.

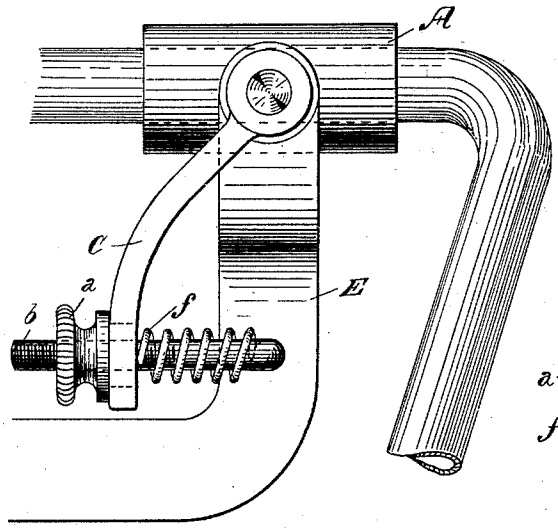
APPARATUS FOR DECANTING BOTTLES.

No. 485,050. Patented Oct. 25, 1892.

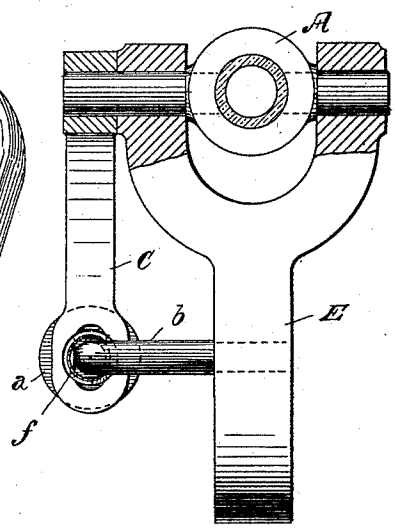
FIG=4



FIG=3-



FIG=5-



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UNITED STATES PATENT OFFICE.

FRITZ MOOG, OF MÜLHEIM-ON-THE-MOSEL, GERMANY.

APPARATUS FOR DECANTING BOTTLES.

SPECIFICATION forming part of Letters Patent No. 485,050, dated October 25, 1892.

Application filed January 20, 1892. Serial No. 418,695. (No model.) Patented in Germany May 20, 1890, No. 55,755, and in Austria-Hungary June 22, 1891, No. 10,260 and No. 25,677.

To all whom it may concern:

Be it known that I, FRITZ MOOG, a subject of the Emperor of Germany, residing at Mülheim-on-the-Mosel, in the Empire of Germany, have invented a new and useful Device for Decanting Bottles in a Lying Position, (for which I have obtained a patent in Germany, No. 55,755, bearing date May 20, 1890, and in Austria-Hungary, No. 10,260, Tom. 41, fol. 1858, and No. 25,677, dated June 22, 1891, XXV, 1665,) of which the following is a specification.

The decanting-siphon forming the object of this invention, with constrained guiding of the suction-tube, serves for shifting such wines or other liquids which are stored in bottles and have eliminated solid bodies in the shape of deposit or flakes into other bottles, while this deposit is left in the original bottles and the air shut out as much as possible. Especially with wine this purpose could hitherto be accomplished either not at all or in a very imperfect manner, not to speak of the loss of material sustained. If the bottle is made to run out gradually either by hand or with a kind of tilting-machine, always part of the deposit, which is loose on the glass, not only on the bottom, but also at the sides and in the neck of the bottle, is taken along with the wine. Moreover, in most cases the deposit gets loose by the always-changed position of the bottle, is agitated, and muddles a proportionally-large quantity of the clear liquid, which quantity must be left as residue, thus causing considerable loss.

Another method of decanting consists in introducing by hand one end of an ordinary siphon into the upright bottle and actuating the siphon by pressed-in air; also, with this method the taking along of troubled liquid and the loss in muddled liquid are unavoidable. Moreover, the managing in an extensive concern of large quantities of bottles that are previously to be put upright for depositing is of great difficulty.

The improved device is represented in the accompanying drawings by Figure 1 in the initiatory position, and by Fig. 2 in the end position. Figs. 3, 4, and 5 represent detailed views of the device.

It consists principally of the bottle-holder L, secured to an arm V of the stand, and the decanting-siphon proper V′. The latter is revoluble about pivot *z* of plate D, so that it can be shifted sidewise.

The decanting-siphon V′ consists of the guide-bearings M M, in which the guide-rod S can be moved forward and backward parallel to the longitudinal axis of the bottle. The upper rectangularly-bent-up end E of the guide-rod is bifurcated and has revolubly lodged therein a tube A for receiving the suction-tube H.

On the shaft of tube A is located a tongue C, which is pressed outward by pin *b*, secured to the guide-rod with set-screw *a* and spiral spring *f*, which serve to press the left end of the suction-tube downward as soon as the latter is shifted by means of the guide-rod into the bottle and approaches the bottom thereof.

As shown in the drawings, the liquid, in order to avoid the premature disturbing of the sediment, enters from above into the suction-tube. The other longer shank of the siphon is formed by an india-rubber tube G, adapted to be closed by a little cock.

For decanting, the bottle as it is stored is placed slightly inclined upward into the bottle-holder L, where it is held by hoop B and clamped in between the plate or cap G′, adjustable by knob K and spring F, and the the ring *h*, made according to the head of the bottle and lined with india-rubber, said ring leaving the whole mouth of the bottle free.

For uncorking, the decanting-siphon is shifted aside and an uncorking-machine, likewise secured to rod S, but not shown in the drawings, is placed in front of the bottle. The cork having been drawn, the decanting-siphon is shifted before the mouth and the suction-tube put by means of guide-rod S for the greater part into the bottle. As the bottle is lying very flat, the small quantity of liquid displaced by the suction-tube flows out, whereby the unavoidable drop of impurity arising from the drawing of the cork is also removed. Through a small groove attached to the ring *h* the drops flowing over are conducted into the receptacle placed underneath.

The siphon is set to work either by suction with the mouth or, if this is to be avoided, by an elastic ball inserted in the india-rubber

tube. The liquid flows slowly and without perceptible movement through the siphon into the new bottle placed underneath. In a measure as the bottle gets empty the deposits adhering to the sides are indeed loosened, but remain coherent in the shape of a fine film and swim on the surface, while the siphon sucks from the center of the liquid. When these impurities approach the end of the suction-tube, the latter is shifted wholly into the bottle, whereby it sinks down, as described above. The mouth of the tube being above, the liquid can be drawn up to a small rest. As soon as impurities tend to enter the tube the little cock of the india-rubber tube is closed and the suction-tube pulled out of the bottle. Said tube remains filled with liquid and from then actuates itself as soon as the cock is opened. If the residue is filtered, it can in most cases serve to fill those new bottles which have not become quite full, so that the loss is almost *nil*.

The advantages of the improved device are, first, a complete separation, hitherto unattained, of the deposit from the clear liquid; second, the very small residue of muddled liquid; third, a capacity unattainable by any other device of the easily-handled apparatus, which, moreover, can be adjusted most nicely, corresponding to the different character of the deposit; fourth, the minimal contact of the liquid with the air.

What I claim is—

In a machine for decanting bottles in a lying position, the combination of a bottle-holder consisting of the knob K, the spring F, the cap G′, the hoop B, and the arm V with the suction-tube H of a decanting-siphon, guided by means of guide-rod S in the guide-bearings M M, attached to plate D and held by tube A, turning in the bifurcated bent-up end E and provided with tongue C, pin *b*, screw *a*, and spring *f*, as and for the purpose specified.

FRITZ MOOG.

Witnesses:
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