

J. I. ORKIN & J. ISAACS.
 APPARATUS FOR CLEANING OIL WASTE.
 APPLICATION FILED JULY 17, 1908.

936,657.

Patented Oct. 12, 1909.

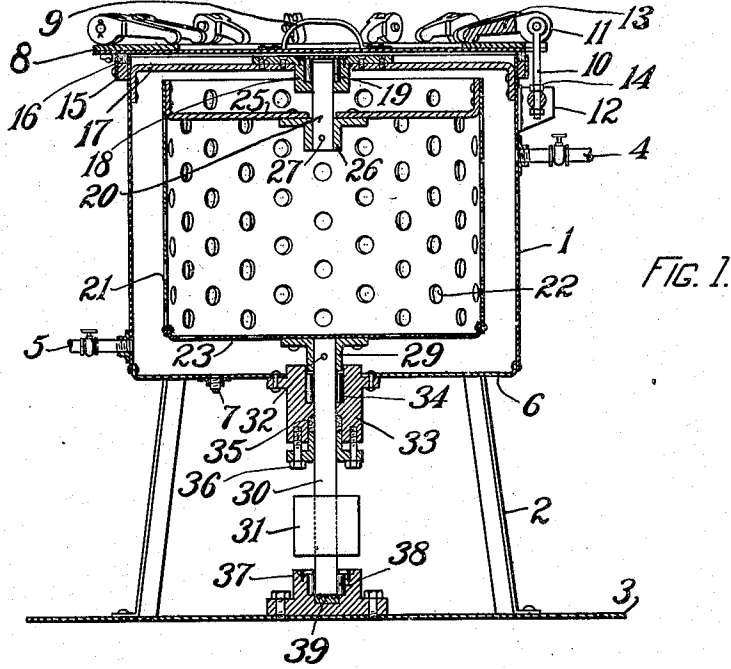


FIG. 1.

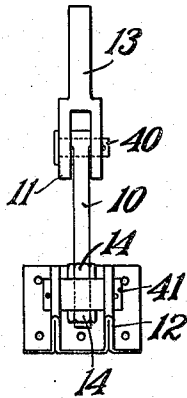


FIG. 4.

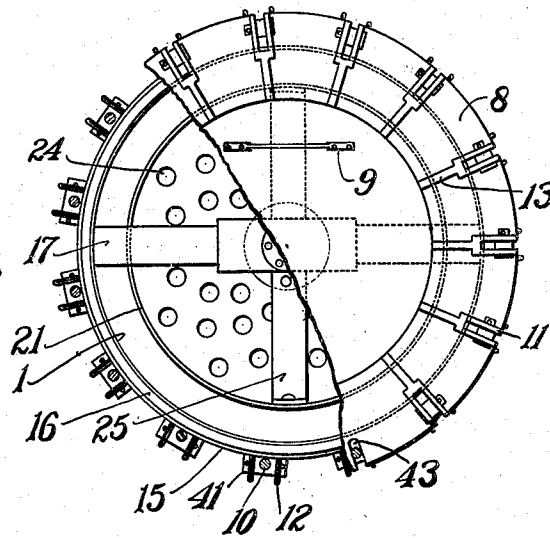


FIG. 2.

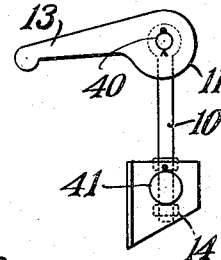


FIG. 3.

WITNESSES

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APPARATUS FOR CLEANING OIL-WASTE.

936,657.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, JACOB I. ORKIN and JACOB ISAACS, citizens of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Apparatus for Cleaning Oil-Waste, of which the following is a specification, reference being had therein to the accompanying drawing.

Our invention relates to improvements in apparatus for cleaning oil waste, in which means are provided for extracting oils, grease, gums and other substances from cotton and other waste by the application of steam or volatile solvents, the substances when properly extracted, being suitable to be used for the same purposes as formerly, and the cleansed waste after being suitably dried, being nearly as good as new.

The object of the invention is to provide a machine of comparatively few parts, simple in operation and provided with a steam-tight cover easily removable.

The invention consists in the combination of elements and in certain parts of novel construction entailed in the combination of said elements to obtain the desired result.

A full understanding of our invention can best be given by a detailed description of a preferred construction embodying the various features of our invention, and such a description will now be given in connection with the accompanying drawings, and we attain our object by the mechanism there illustrated, showing such preferred construction, and the features forming the invention will then be specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a central vertical section of our improved apparatus. Fig. 2 is a plan view of the upper portion of the machine, partly in section. Fig. 3 is a side elevation of one of the cover-clamps. Fig. 4 is a front elevation of one of the cover-clamps with the handle extended.

Latitude is allowed herein as to details, as they may be changed or varied at will without departing from the spirit of our invention and the same yet remain intact and be protected.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In the drawings 1 indicates a steam tank, which is a cylindrical metal receptacle supported by legs or standards 2, which are attached to a base-plate 3. The tank is provided with a steam inlet-pipe 4, having its entrance near the top of the tank, and an outlet-pipe 5, which is located at the bottom of the tank adjacent to the bottom 6, on the opposite side of the tank. A drip-cock 7 may be provided in the bottom 6 for drawing off the substances separated from the waste, and the water for washing the waste. The tank 1 is provided with a cover 8, having handles 9, and provided with slots or openings 43 around its circumference, adapted to engage and receive links 10 of cover-clamps 13. The cover-clamps 13 are provided with rounded base-portions 11, which afford means for readily and quickly clamping and unclamping the cover-clamps by lowering or raising the cover-clamps 13, thus dispensing with bolts or screws in clamping the cover down upon the steam tank. The cover-clamps 13 at their base-portions 11 are pivoted to brackets 12, attached to the surface of the tank 1, at the upper end of a link 10 by a stud-pin 40, the lower end of the link 10 being pivoted to the bracket 12 by a stud 41, and being threaded and provided with nuts 14, so as to provide means for adjusting the pressure of the cover-clamps upon the cover 8.

The circumference of the tank 1 is provided with a receptacle 15 flush with the edge of the tank and adapted to receive and hold a suitable packing-ring 16, which projects somewhat above the edge of the tank 1 and provides, when the cover 8 is clamped down by the cover-clamps 13, a steam-tight joint between the cover 8 and the edge of the tank 1. A cross-brace 17 extends across the top of the tank 1 just below its edge, to which is attached at its center a bearing-case 18 provided with roller-bearings 19, which come in contact with the shaft 20.

Within the tank 1 is a perforated, cylindrical drum 21, its wall having a series of openings 22 and its bottom 23 also being provided with openings 24. A cross-brace 25 is attached to the top of the drum 21 and below its edge, and is provided at its center with a boss 26, which serves to hold the shaft 20 in position.

The shaft 20 connects the cross-braces 17 and 25 by connecting the bearing-case 18 and the boss 26, the shaft 20 being held in

the boss 26 by a set-screw 27 and left free to revolve in the bearing-case 18 against the roller-bearings 19. A boss 29 is attached to the bottom 23 of the drum 21 at its center.

5 A shaft 30 rotated by the pulley 31 is held in the boss 29 by a set-screw 32. A bearing-case 33 is attached to the bottom 6 of the tank 1, being provided with roller-bearings 34, which come in contact with the shaft 30, 10 and a packing-case 35, which is provided with adjustable means 36 for taking up the wear in the packing.

In the center of the base-plate 3 is placed a bearing-case 37 provided with roller-bearings 38 and ball-bearings 39. The shaft 30 15 passing through the bearing-case 33 revolves freely against the roller-bearings 34 of the bearing-case 33, the end of the shaft 30 resting in the bearing-case 37, while the shaft 20 revolves freely against the roller-bearings 38 of the bearing-case 33.

In operation the waste to be cleaned is placed in the drum 21 and the cover 8 fastened securely down by the cover-clamps 13. 25 Steam is then admitted to the tank 1 by the inlet-pipe 4 and passes through the perforations 22, 24 into the drum 21 and through the waste. The shaft 30 is then revolved by the pulley 31, which is connected to any suitable power. When sufficiently treated the 30 oily substances are removed from the waste and pass through the perforations into the tank 1, from which they may be drawn off as desired, through the drip-cock 7. When 35 the oily substances have been withdrawn, the tank may be filled with water and the waste thoroughly washed and cleaned.

It is to be understood that our invention is not limited to the specific details of construction shown in the accompanying drawings, but that said details may be varied in the practical carrying out of our invention. 40 It is also to be understood that the combinations specifically set forth in the several 45 claims are intended to be separately claimed without limitation to the use in connection

therewith of other features and details of construction illustrated.

Having thus described our invention, we claim as new and desire to secure by Letters 50 Patent—

1. In an apparatus for cleaning oil waste, the combination with a stationary steam tank, of a cylindrical drum revoluble therein, perforations in the side and bottom of 55 said drum, a steam inlet-pipe located in the side of the said tank, a steam-tight cover for said tank, and a divided shaft, having its upper portion mounted in a cross-brace extending across the top of the said drum and 60 seated in a bearing case mounted on a cross-brace extending across the top of the said tank and having its lower portion attached to the base of said drum and seated in a bearing case centrally mounted in the base- 65 plate.

2. In an apparatus for cleaning oil waste, the combination with a stationary steam tank, of a cylindrical drum revoluble therein, perforations in the side and bottom of 70 said drum, a steam inlet-pipe located in the side of the said tank, a steam-tight cover for said tank, a plurality of cover-clamps having rounded base portions attached to the upper edge of said tank and adapted to 75 register with slots in the circumference of the said steam-tight cover, and a divided shaft, having its upper portion mounted in a cross-brace extending across the top of the said drum and seated in a bearing case 80 mounted on a cross-brace extending across the top of the said tank and having its lower portion attached to the base of said drum and seated in a bearing case centrally mounted in the base-plate. 85

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

JACOB I. ORKIN.
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Witnesses:

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