

C. B. HOWE.
CLEANING MACHINE.
APPLICATION FILED FEB. 17, 1911.

1,045,554.

Patented Nov. 26, 1912.

3 SHEETS—SHEET 1.

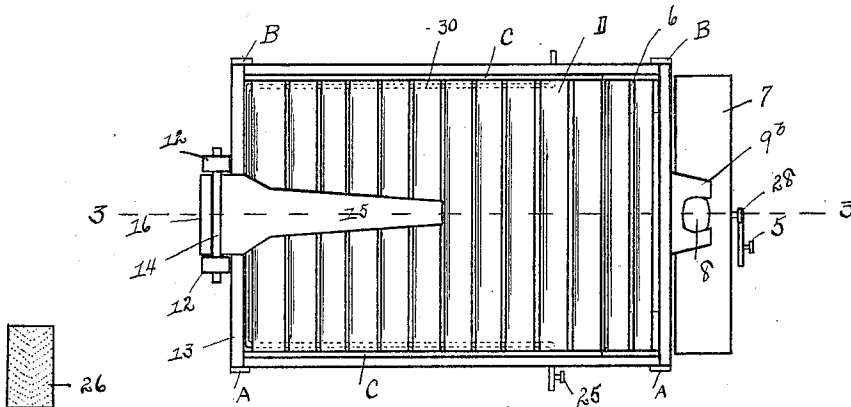
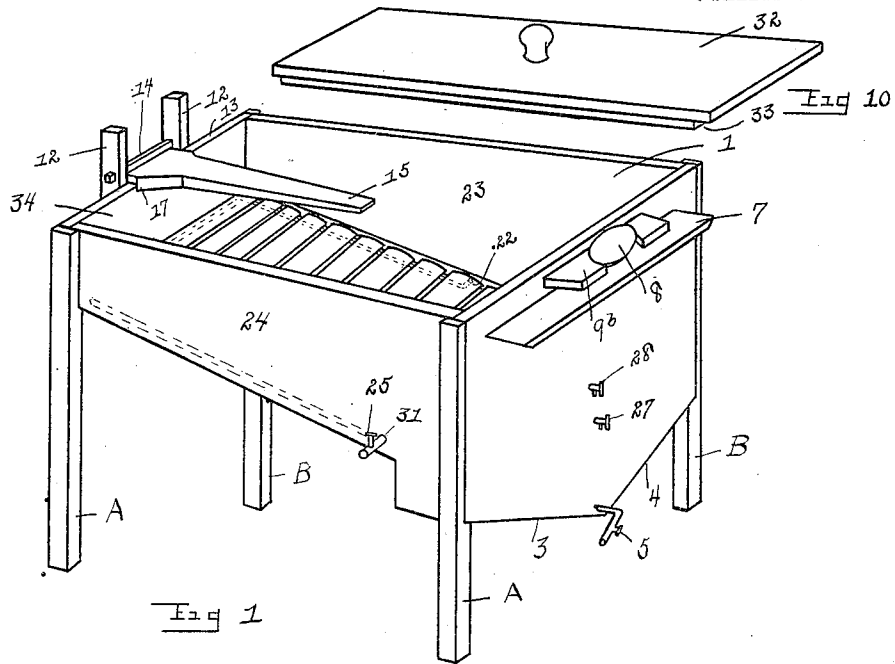


Fig 12

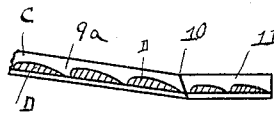


Fig 11

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3 SHEETS—SHEET 2.

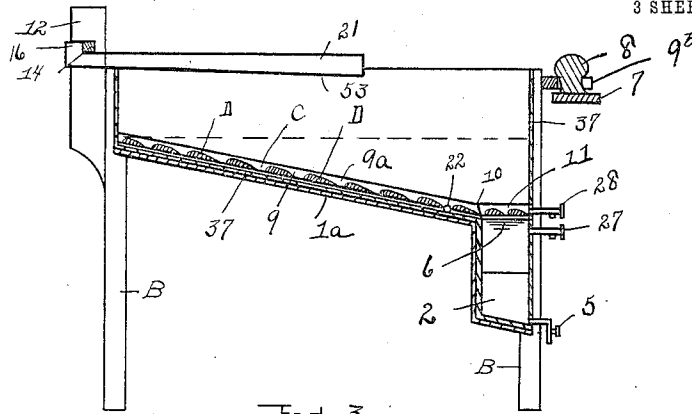


Fig 3

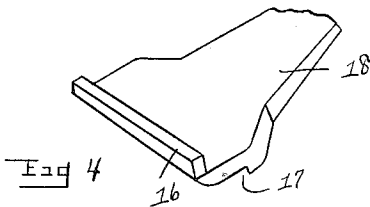


Fig 4

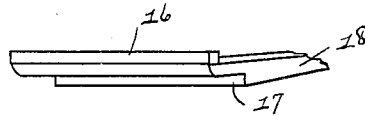


Fig 5

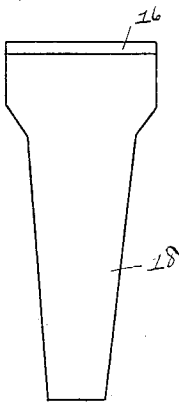


Fig 6

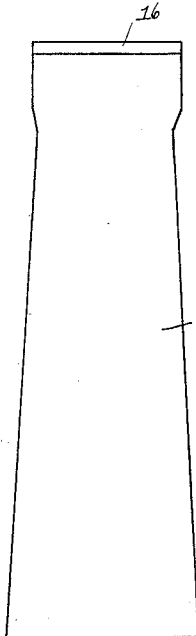


Fig 7

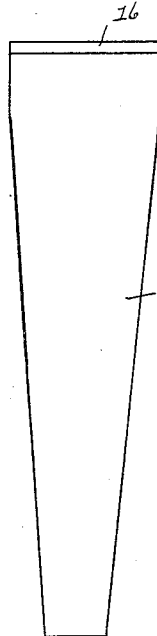


Fig 8

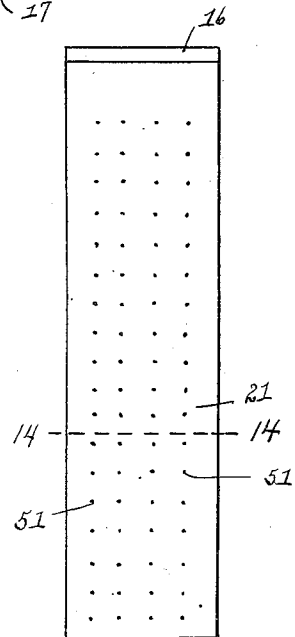


Fig 9

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3 SHEETS-SHEET 3.

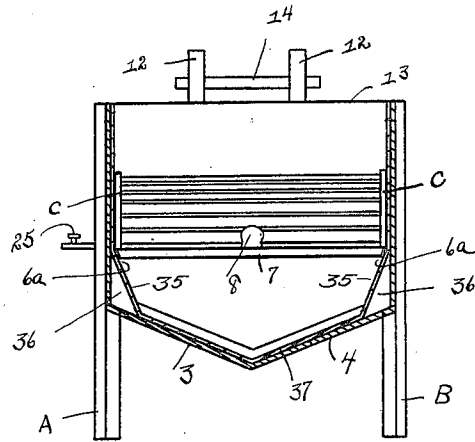


Fig 13

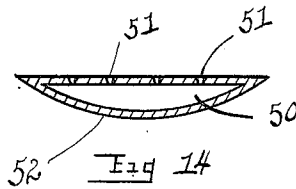


Fig 14

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UNITED STATES PATENT OFFICE.

CLARENCE B. HOWE, OF UTICA, NEW YORK.

CLEANING-MACHINE.

1,045,554.

Specification of Letters Patent.

Patented Nov. 26, 1912.

Application filed February 17, 1911. Serial No. 609,120.

To all whom it may concern:

Be it known that I, CLARENCE B. HOWE, a citizen of the United States, residing at Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Cleaning-Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to a cleaning machine, and I declare the following to be a full, clear, concise and exact description thereof sufficient to enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings in which like reference characters refer to like parts throughout the specification.

The object of the invention is to provide an inexpensive, efficient apparatus for the cleaning of clothes, fabrics, or garments by the so called dry process.

The machine embodies a plurality of detachable boards, corresponding with the particular garments cleaned by such process, said boards being held in suspended position over a vat or tank containing a prepared liquor or gasoline. Upon one end of these boards thus suspended the garment may be slipped and the process conveniently carried on.

Other objects will appear from the drawings in which:

Figure 1 is a perspective view of the device complete; Fig. 2 is a plan view; Fig. 3 is a transverse section taken on the line 3—3 of Fig. 2 showing a board in elevation; Fig. 4 is a perspective detail, somewhat enlarged, showing more particularly the means to suspend the board over the vat; Fig. 5 is a similar view to Fig. 4 showing a slightly different perspective; Figs. 6, 7, 8, and 9 show plan views enlarged of different boards employed for the different garments. Fig. 10 is a perspective view of a cover employed; Fig. 11 is a detail, enlarged, showing a fragment in side elevation of the rack; Fig. 12 is a detail view of a brush employed; Fig. 13 is an end elevation with parts removed; Fig. 14 is a section enlarged, on line 14—14 of Fig. 9.

Referring more particularly to the drawings, the vat or tank proper is represented by 1, having legs A—A and B—B. Said vat has a sloping base 1^a leading to a pit 2 having the opposite sides of its base sloping

transversely to the base of vat 1, as seen at 3 and 4. At the lowest portion of said pit 2, there is a cock 5 by which the gasoline, containing the sediment, may be drawn off. Aperture 6 above pit 2 may be closed by plug 7 having its sides properly covered with any suitable packing whereby to make an air tight junction with the edges and surfaces adjacent the aperture 6. When not disposed over aperture 6 of pit 2, said plug 7 is conveniently suspended by its handle 8 upon bracket 9^b secured to the front end of the vat 1. Base —1^a— of vat 1 is covered by a rack 9 divided on a bevel as at 10 whereby portion 11 of said rack 9 may be disposed at an angle to portion —9^a— and thus permit the suitable assembling of said rack adjacent the base —1^a— of vat 1. Rack 9 comprises side pieces C—C adapted to hold cross bars or slats D a little above base —1^a— of vat 1. Further side pieces C—C of said rack 9 are properly beveled at either end for the assembling of said rack adjacent the ends of vat 1 with which they contact. Portion 11 of rack 9 is held in proper horizontal position over aperture 6 of pit 2 by the upper edges —6^a— of the sloping sides 35—35 of blocks 36—36 disposed and secured on sloping sides 3 and 4 of base of pit 2.

At one end of the vat 1 there is disposed in vertical position two brackets 12—12 holding, a given distance above edge 13 of vat 1, a bar 14, whereby a board as 15 having a cleat 16 and shoulder 17 may be readily disposed, by tilting, between said bar 14 and edge 13 of vat 1 and securely assembled in horizontal position over vat 1.

A plurality of boards 15 are shown. Said boards are shaped in accordance with the design of ordinary garments. That one shown at 18 is adapted to hold sleeves of a garment, that at 19 to hold skirts, that at 20 to hold trousers and that at 21 to hold miscellaneous articles.

There may be assembled to the device a steam pipe 30 entering at 22, running along adjacent side 23 and near the base —1^a— to end 34 of vat 1, to remote side 24 of vat 1, along side 24 near base —1^a— to 31 or exit from vat 1, there being a draw off cock at 25. Obviously the places where the steam pipe enters and leaves vat 1, as at 22 and 31 will be provided with sufficient packing to prevent any leakage. The steam pipe will be found useful to admit steam thereto

to heat the gasoline or liquor in vat 1 when same is exposed to a cold atmosphere.

The operation of the device is as follows: The employee fills vat 1 to the height indicated by dotted line in Fig. 3 with a prepared liquor. He then disposes in position the proper board in accordance with the garment to be cleaned. The garment is slipped over the free end of the board employed and drawn around same a few times in order to expose all parts of said garment to the liquor in vat 1. A brush as 26 may be employed to aid the process. The arrangement is such as to admit of the convenient dipping of the brush 26 into the liquor and then to rub same vigorously upon the garment. As the process proceeds, the dirt and sediment that settles upon inclined base 1^a will gravitate toward pit 2 and there centralize along an inclined drain whereby it may be drawn off by cock 5. In order, however, to draw off the dirty liquor and at the same time preserve the pure, I remove the board employed, also rack 9, including portion 11 over aperture 6 of pit 2, and insert plug 7 in place to close said aperture 6 completely. Cock 5 is then opened to let out the dirty liquor containing the sediment. After same has receded below vent 27 disposed adjacent the top of pit 2, vent 27 is opened to admit air whereby the remaining liquor may be drawn off much faster. There is also provided a cock 28 disposed above aperture 6 of pit 2, whereby the pure liquor may be drawn off simultaneously with the dirty liquor, if it is desired so to do.

The tank and pit may be covered with galvanized iron or other suitable material as at 37 and the rack may be made of any desirable metal suitable for the purpose. However, I deem such matters to be within the scope and spirit of my invention.

The function of rack 9 and its portion 11 is to prevent the garments, being cleaned, from coming in contact with the sediment that falls upon base —1^a— of vat 1.

Cross bars D of rack 9 have their upper surfaces curved substantially as shown in Fig. 11, and are so disposed on side pieces C—C, that there is very little space left between them. The purpose is to prevent the dirt that has gotten below said bars D on base 1^a of vat 1, from again returning to the upper surface, when the liquid is agitated by the dipping of brush 26 into same, during the process of cleaning.

At 32 in Fig. 10, I have shown a cover having a shoulder 33 covered with packing to adapt same when said cover 32 is disposed

upon vat 1, to make an air tight fitting, in order to prevent the evaporation of the liquid when the machine is not in use.

In Fig. 9, board 21 is shown as made from a metal casting or of suitable construction. Said board 21 comprises a hollow portion 50, Fig. 14. The top surface is punched or perforated with a plurality of holes 51, in order to allow the liquor to drip through to hollow portion 50, inclosed by under portion or surface 52, which lies on an incline as at 53 when said board 21 is assembled to the device, so that the liquid will gravitate toward the end of said board 21 and spill or flow out into vat 1. Under surface 52 prevents the liquid that drips through the top surface of board 21, from contacting with the garment, being cleaned.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a cleaning machine of the character described, the combination of a vat having a sloping base, a board adapted to hold garments over said vat, means to detachably hold one end of said board, a rack comprising slats with curved upper surfaces, whereby to prevent the sediment from mingling with the liquid in said vat, a pit for collecting said sediment, a plug for separating the sediment in the pit from the pure liquid in the vat, a cock for drawing off said sediment, and a vent for increasing the flow of the sediment as same is drawn off.

2. In a cleaning machine, the combination of a vat, brackets secured to one end of said vat, a bar mounted to said brackets, a board having one end adapted to be detachably held by said bar, whereby to support garments over said vat, a rack comprising slats with curved upper surfaces, whereby to prevent the sediment in said vat from mingling with the pure liquid, a pit disposed at one end of said vat, said pit having its sides sloping with reference to the base of said vat, whereby said sediment may gravitate toward a cock, a plug for separating the pit from the vat, whereby the pure liquid may be separated from the sediment, and valves for drawing off the sediment and the pure liquid, substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two witnesses.

CLARENCE B. HOWE.

Witnesses:

ELEANOR T. DE GIORGI,
T. L. WILDER.