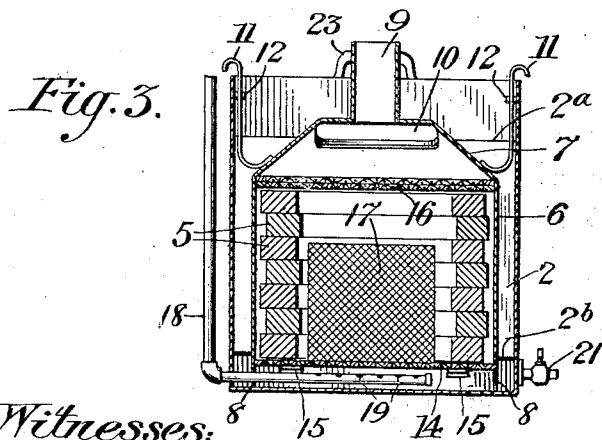
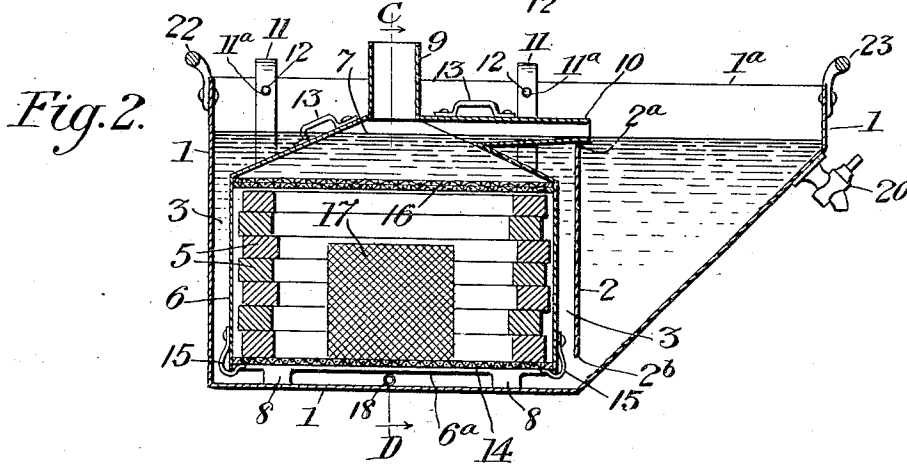
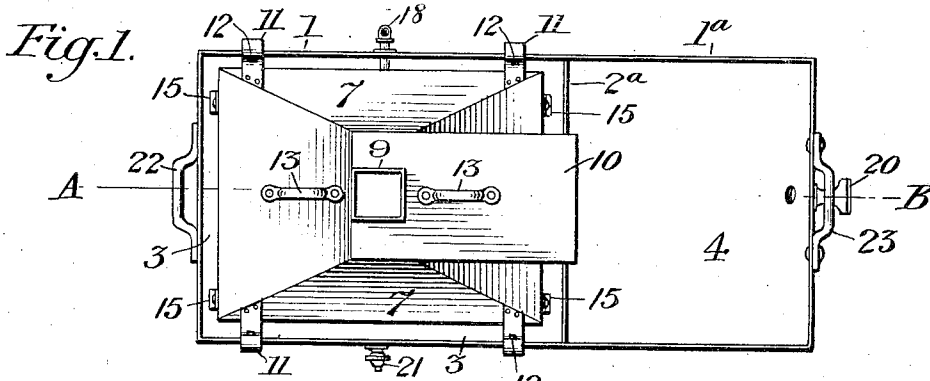


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WAX EXTRACTING APPARATUS  
APPLICATION FILED MAY 13, 1909.

931,878.

Patented Aug. 24, 1909.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## WAX-EXTRACTING APPARATUS.

931,878.

Specification of Letters Patent.

Patented Aug. 24, 1909.

Application filed May 13, 1909. Serial No. 495,637.

*To all whom it may concern:*

Be it known that I, ERNST KÖPKE, a citizen of the United States, residing at Honolulu, county of Honolulu, Territory of Hawaii, have invented certain new and useful Improvements in Wax-Extracting Apparatus; and I 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 appertains to make and use the same.

My invention relates to apparatus for extracting wax, whereby the wax is separated from the dirt and slumgum; and has for its object an apparatus of this character which shall be simple and inexpensive in construction and efficient in operation.

A further object is to produce such an apparatus which shall be particularly adapted to receive a number of frames, from which the honeycombs have been cut, and to recover the wax remaining on said frames.

A further object is to produce a simple and efficient apparatus which shall separate the wax from the slumgum placed in one compartment and deposit the wax in another and cooler compartment where it is not exposed to a temperature much higher than its melting point.

My invention contemplates an open container, a partition partially dividing it into two communicating compartments, a receptacle adapted to fit loosely inside one of the compartments, said receptacle having a hood shaped top provided with an approximately horizontal spout overlapping said partition, and also provided with a short vertical vent pipe, means for removably securing a screen bottom to said receptacle, a removable screen adapted to fit the inside of the receptacle under its hood top, a removable wire screen cage, means for removably holding the receptacle in place, and means for withdrawing the wax from the other compartment. The space in the receptacle between the upper and bottom screens contains the frames, from which the wax is to be removed, and the cage which is placed in the center of said frames; the space between the frames and cage being packed with slumgum. When the receptacle has been thus filled and its screen bottom secured, it is placed in the compartment and fastened to prevent displacement. The container is placed upon a stove and is then

filled with water about up to the level of the spout. The water becoming heated, melts the wax and carries it upward through the screen into the hood top, and through the spout, discharging the wax into the other compartment, from which it is skimmed if cool or drawn off through a cock if sufficiently hot to run through the cock. Dirt is prevented by the upper screen from entering the hood top, and is therefore not carried over through the spout. The cooler water in the wax-receiving compartment passes under (or through holes in the lower portion of) the partition and replaces the water in bottom of the larger compartment, the receptacle and the cage, a circulation being thus effected. The cage insures that a body of water, from which dirt is excluded, is always maintained in the center of the frames and slumgum, and in the hottest position in the container. The proper height of water can be easily regulated, by adding cold water to that in the wax-receiving compartment if too low, or by withdrawing water through a cock if too high. The vertical vent pipe allows the water under the hood top to boil without as much being blown over through the spout, as would otherwise be the case. In order to facilitate the separation of the globules of wax from the slumgum, air may be applied through a pipe under the screen bottom of the receptacle. The operation is carried on until no more wax is carried over through the spout, as can be readily observed, whereupon the receptacle is removed. After cleaning the apparatus and recharging the receptacle, the operation is repeated. To save time, a duplicate receptacle may be employed.

The invention is particularly applicable for operation upon an ordinary stove, in places where the quantity of wax to be recovered is comparatively small. It is also applicable for operation on a larger scale where large amounts of wax are to be recovered, in which case the apparatus may be heated by steam in coils under the container or in any other suitable manner. The apparatus may also be employed with equal success for rendering tallow from suet, or for any renderable substances which are lighter than water.

In the accompanying drawings, Figure 1 is a top plan view representing one form of wax extracting apparatus embodying my in-

vention; Fig. 2 represents a sectional elevation on the line A—B of Fig. 1; and Fig. 3 represents a sectional elevation on the line C—D of Fig. 2.

Referring to the drawings; the container 1, preferably of metal and of the shape shown, is provided with the plate partition 2, which partially divides the container into two compartments 3 and 4. The compartment 3 is of a suitable size to hold a number of frames 5 from which the wax is to be recovered. The top 2<sup>a</sup> of the partition 2 is below the top 1<sup>a</sup> of the container 1. The lower portion of the partition 2<sup>b</sup> is either cut away as shown, or is provided with holes as will be readily understood.

The receptacle 6, adapted to fit loosely inside of the compartment 3, has a hood shaped top 7. The projections or feet 8 rest upon the bottom of the container 1. A short vertical vent pipe 9 is provided in the hood top 7. An approximately horizontal, or slightly inclined upward, spout 10 projects from the hood top 7 and overlaps the top 2<sup>a</sup> of the partition 2 when the receptacle is in place. Flat springs 11, attached to the hood top 7, are provided with holes 11<sup>a</sup> adapted to receive the pins 12 in the sides of the container 1 above the compartment 3, for removably holding the receptacle in said compartment. The hood top 7 may be provided with handles 13, for withdrawing the receptacle 6 from the compartment 3. The wire screen frame 14, held inside the lower end 6<sup>a</sup> of the receptacle by the catches 15, constitutes the removable bottom of the receptacle. The screen 16, made of one or more thicknesses of woven wire cloth or sheet metal with fine perforations, fits inside of the receptacle 6, under the hood top 7 and above the frames 5. The basket or cage 17,

preferably made of wire screen, rests upon the screen 14, inside of the frames 5. Air may be applied through the pipe 18, provided with holes 19, under the screen 14 which forms the bottom of the receptacle 6. The cock 20 is for withdrawing hot wax or water from the compartment 4, and the cock 21 is for withdrawing water from the compartment 3. Handles 22 23 may be attached to the container 1. The hood top 7 may be made detachable if desired.

I claim:

1. A wax extracting apparatus, comprising an open container, a partition dividing it into two compartments, a receptacle for the material to be rendered having a hood shaped top provided with a spout overlapping said partition, and a screen between said hood top and the material to be rendered.

2. A wax extracting apparatus, comprising an open container with two communicating compartments, a receptacle in one of said compartments and provided with a vent pipe and a spout, a screen in said receptacle below the spout, a cage below said screen, and means for removably securing said receptacle in place.

3. A wax extracting apparatus, comprising a container with two communicating compartments, a receptacle provided with a screen bottom, a hood top having a vent pipe and a spout, means for holding said receptacle in one compartment, and a screen in said receptacle under said hood top.

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

ERNST KÖPKE.

Witnesses:

ROBT. J. PRATT,  
P. H. BURNETTE.