

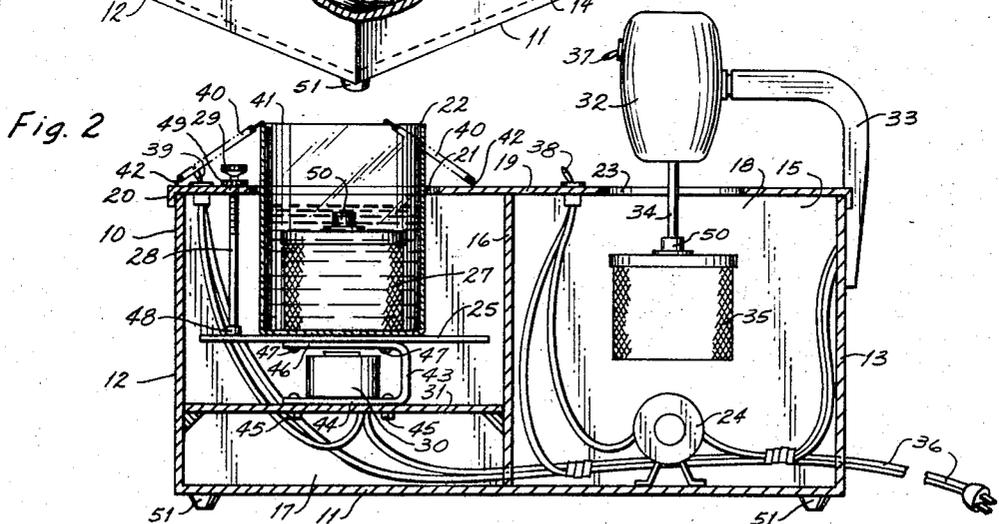
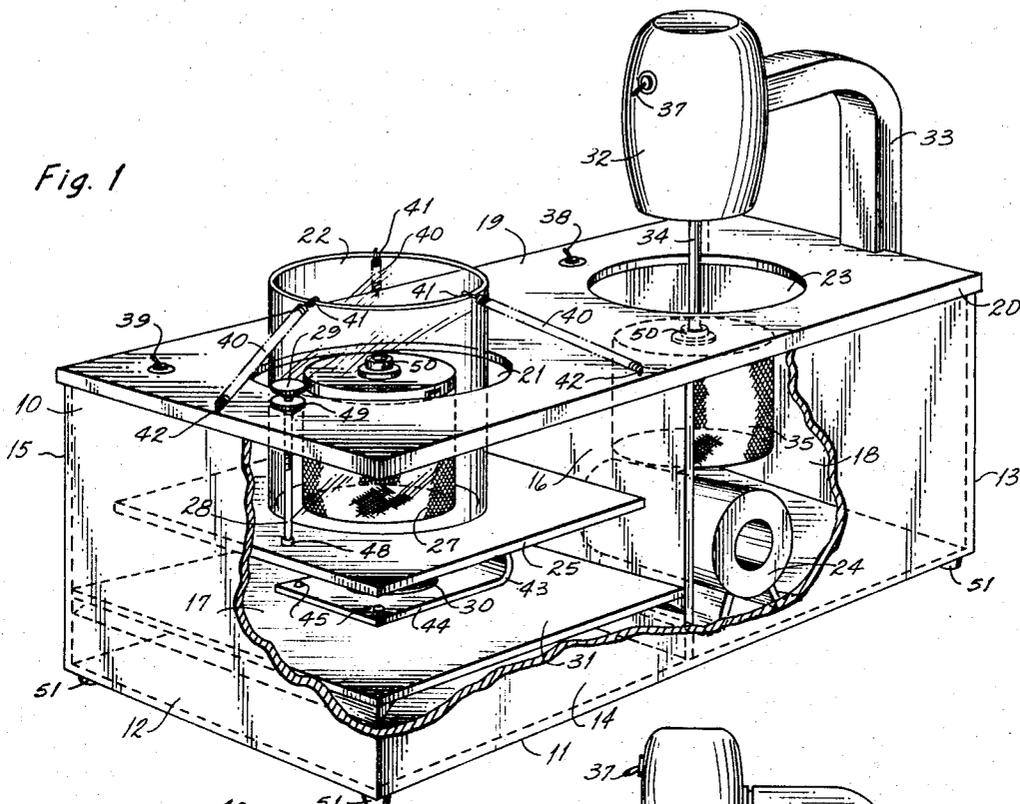
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VIBRA-WATCH AND JEWELRY CLEANER

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VIBRA-WATCH AND JEWELRY CLEANER

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1 Claim. (Cl. 134—86)

The present invention relates to cleaning machines or devices for watches, clocks, jewelry, and the like, in which cleaning is accomplished by vibrations of a fluid, in a container in which the watch works, or the like, are immersed, and in particular a housing, or case having a cleaning fluid receptacle on a floating platform or tray therein, and means for vibrating the receptacle and tray.

Various types of cleaning machines, or the like, have been provided for cleaning watches and some of these machines or instruments use vibrating fluids or elements. However, it is difficult to vibrate a fluid in a container, such as used by the prior art whereby vibration of a container in which the fluid is positioned creates sufficient circulation through the watch works or jewelry to obtain a washing action which removes foreign matter from restricted areas in watch works, jewelry, and the like.

With this thought in mind this invention contemplates a relatively simple casing having a removable receptacle positioned on a floating tray therein with a spring extended over the container or receptacle and positioned with ends thereof connected to sides of the case, a motor actuated vibrator connected to the tray, a resistor heater positioned in the case, and a basket in which watch works, and the like, may be placed and lowered into the receptacle for cleaning.

The object of this invention is, therefore, to provide a case having a receptacle for holding a watch works, or the like, therein and means for vibrating the receptacle to produce vibrations in the liquid therein whereby a cleaning fluid may be circulated through confined areas in the watch works, or the like.

Another object of the invention is to provide a cleaner for watches, and the like, in which cleaning is accomplished by vibrations of a fluid in a receptacle.

Another important object of the invention is to provide a cleaner in which cleaning is obtained by vibrations of a liquid in a receptacle on a floating tray in a case in which the tray is actuated by a vibrator.

It is yet another object of the invention to provide a watch cleaner in which means is provided for drying the watch after cleaning.

A further object of the invention is to provide a cleaner for watch works, and the like, in which the watch works, or the like, is placed in a removable basket on a floating tray and in which the watch works is dried by a 220 ohm resistor heater.

A still further object is to provide a watch work cleaner and dryer having a switch or rheostat for controlling the cleaning time.

And a still further object is to provide a cleaner for watch works, jewelry, and the like, in which the cleaner is of simple and economical construction.

Other and further objects and advantages of the present invention will be apparent from the following detailed description, drawing and claims, the scope of the invention not being limited to the illustration of the drawing as the drawing is only for the purpose of illustrating a method by which the principles of this invention can be applied.

Other embodiments of the invention utilizing the same or equivalent principles may be used and structural changes may be made as desired by those skilled in the art without departing from the present invention and the purview of the appended claims.

Other features and advantages of the invention will appear from the following description taken in connection with the drawing, wherein:

FIGURE 1 is a perspective view of the vibra-watch and jewelry cleaner showing a watch works in a basket on a floating tray connected to a vibrator in a case.

FIGURE 2 is a view showing a cross section through the case taken on line 2—2 of FIGURE 1.

While one embodiment of the invention is illustrated in the above-referred-to drawing, it is to be understood that it is merely for the purpose of illustration and that various changes in construction may be resorted to in the course of manufacture in order that the invention may be utilized to the best advantage according to circumstances which may arise, without in any manner departing from the spirit and intention of the device, which is to be limited only in accordance with the appended claim. And while there is stated the primary field of utility of the invention it remains obvious that it may be employed in any other capacity wherein it may be found applicable.

In the accompanying drawing, and in the following specification, the same reference characters are used to designate the same parts and elements throughout and in which the numeral 10 indicates a case having a base or bottom 11, end walls 12 and 13, side walls 14 and 15, a transverse partition 16 dividing the case into compartments 17 and 18, a cover 19 having a continuous depending flange 20 and provided with an opening 21 for a receptacle 22, an opening 23 for receiving a heating element 24, numeral 25 indicating a floating platform on which the receptacle 22 is positioned, numeral 27 a basket in the receptacle and in which watch works, and the like, are placed for cleaning, numeral 28 an adjusting screw having a knurled head 29 on the upper end, and numeral 30 indicating a vibrator mounted on a rigid false bottom or floor 31 and positioned below the floating platform on which the receptacle 22 is positioned.

A motor 32 carried by an arm 33, is positioned to be inserted through the opening 23 in the cover 19 and the arm 33 is secured, such as by spot welding, to the end wall 13. A shaft 34 depending from the motor carries a basket 35 which spins for drying. Electric current is supplied to the motor by a cord 36 in which a switch 37 is positioned. The cord 36, which is also provided with a switch 38, extends to the heating element 24, and from the heating element 24 the cord extends to a control switch 39.

The receptacle 22 is urged against the floating platform 25 by springs 40, upper ends of which are held on the upper edge 41 of the receptacle 22, and lower ends of which are secured in notches 42 of the cover 19.

The vibrator 30 is mounted in a U-shaped bracket 43 a lower arm 44 of which is secured by fasteners 45 to the rigid or false bottom 31, and an upper arm 46 of which is secured by fasteners 47 to the floating platform 25.

The lower end of the adjusting screw 28 is held in a swivel 48 on the floating platform, and the upper end is threaded in a collar or boss 49 on the cover 19.

The basket 35 is removably mounted by a collar 50 on the lower end of the motor shaft 34, whereby the basket may be removed and replaced to facilitate inserting and removing watch works and the like.

In use watch works, and the like, are placed in the basket 27 and the basket and floating platform vibrated by the element 30 for a predetermined period of time, after which the articles are removed from the liquid and dried. By this means watch works, and the like, are thoroughly cleaned in a comparatively short period of time.

The undersurface or bottom of the case is provided with knobs 51, to insulate vibrations of the vibra-watch cleaner

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from a table, or the like, upon which the cleaner is positioned.

From the foregoing description, it is thought to be obvious that a vibra-watch and jewelry cleaner constructed in accordance with this invention is particularly well adapted for use, by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that the invention is susceptible of some change and modification without departing from the principles and spirit thereof, and for this reason it is not desired to be limited to the precise arrangement and formation of the several parts herein shown in carrying out the invention in practice, except as claimed.

What is claimed is:

In a jewelry cleaner, the combination which comprises:

- (a) a supporting rectangular shaped case having a horizontally disposed base,
- (b) a cover positioned parallel to the base and spaced upwardly therefrom, said cover having spaced openings therethrough,
- (c) a floating tray positioned beneath a first opening in said cover, a receptacle on said tray, means for vibrating said receptacle and tray, radially disposed springs uniformly connecting the rim of said recep-

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- tacle to said cover for holding said receptacle in position in said first opening in said cover by urging said receptacle against said tray,
- (d) a foraminous basket for retaining the jewelry to be cleaned in a liquid in said receptacle,
 - (e) a vertically disposed shaft adapted to extend through a second opening in the cover and mounted to spin a second jewelry retaining basket,
 - (f) and a resistor heater positioned beneath said second opening for drying said jewelry.

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