Aug. 22, 1933. M. KLEIN 1,923,626

WATCH CLEANING MACHINE

Filed Jan. 23, 1932

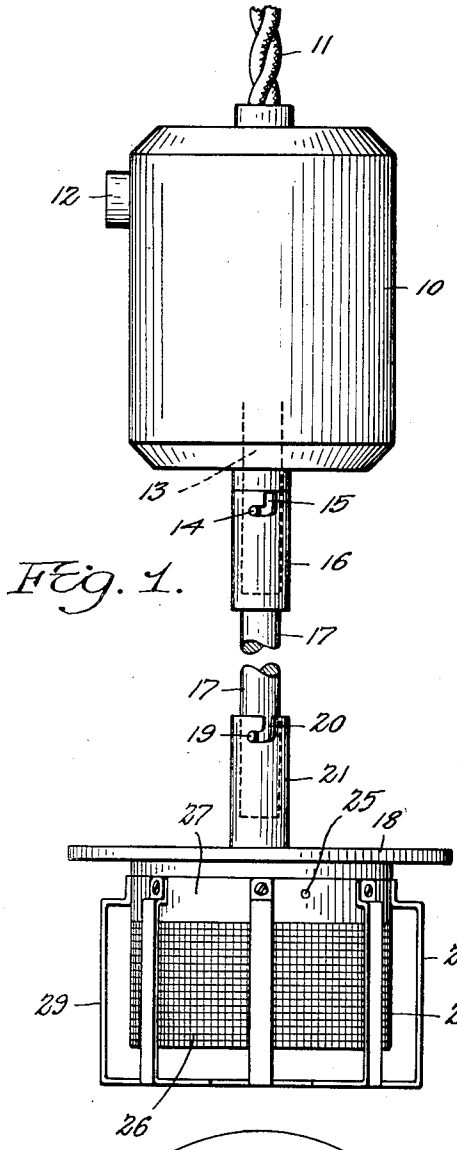


Fig. 1.

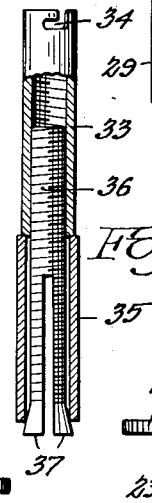


Fig. 5.

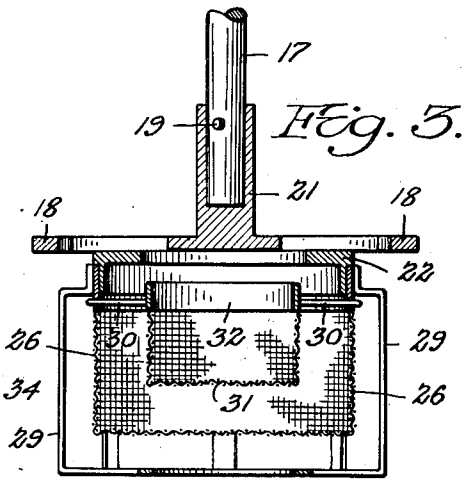


Fig. 3.

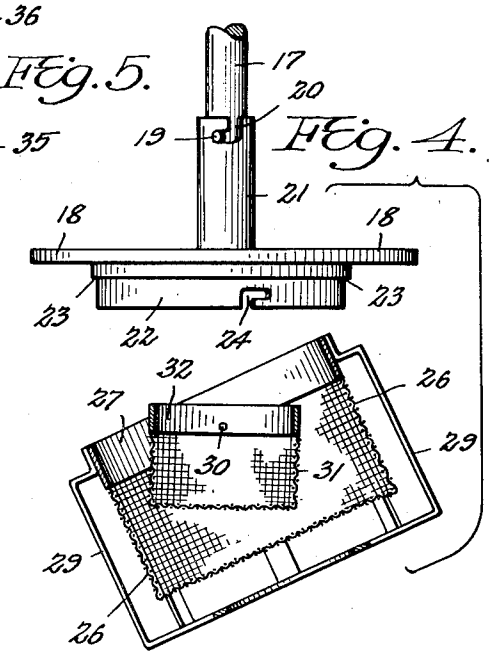


Fig. 4.

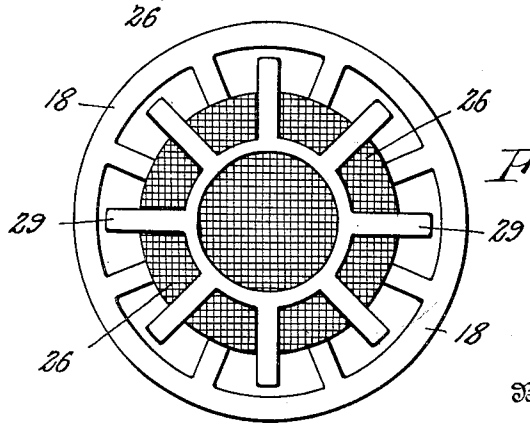


Fig. 2.

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UNITED STATES PATENT OFFICE

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WATCH CLEANING MACHINE

Morris Klein, Aliquippa, Pa.

Application January 23, 1932. Serial No. 588,477

4 Claims. (Cl. 141—1)

This invention relates principally to the watch cleaning attachment which due to its type of construction forces the cleaning solution through the screen mesh basket and watch parts contained therein and has for its object a faster, safer, cheaper and better method of cleaning watch parts.

The invention relates to washing machines and more particularly to machines for cleaning the small parts of a watch, the principal object of the invention being to protect the watch parts from damage and loss while being washed.

In the ordinary practice the small parts of a watch are strung on a wire and dangled in a vessel containing a solvent. They are then dried by contact with some absorbent material. The extent of the cleansing is limited due to the arrangement of the parts on the wire and the relatively small amount of agitation, and the repeated contact of the parts with the dissolved material.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described and illustrated in the accompanying drawing wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which fall within the scope of the claims hereunto appended.

In the accompanying drawing:

Figure 1 is an elevation view of the improved washing device, with parts broken away;

Figure 2 is a bottom view of the device;

Figure 3 is a sectional view with part broken away;

Figure 4 is a view of the device, with part broken away, showing the baskets disconnected from the cover; and

Figure 5 is a view of the tool holding device.

Referring to the drawing in detail, a motor 10 is shown for rotating the washing device, this motor may be of any desired type but it is preferred that it be of the 110 universal type. Leading to the motor are electrical conductors 11 through which the motor receives its operating current. A switch 12 is provided for controlling the operation of the motor 10. Motor shaft 13 extends from one end of the motor and has a pin 14 secured in such extension. The pin 14 is adapted to cooperate with slot 15 in the coupling 16 to removably secure the shaft 17 to the motor shaft 13. The shaft 17 may be secured to the motor shaft 13 in any desired manner but it is preferred that the means shown in Figure 1 be used as it permits of a readily connecting and disconnecting of the shaft 17.

To one end of shaft 17 is secured guard 18 by having the shaft 17 extend through the guard and having the end thereof flattened to secure the shaft in place, or the shaft 17 may be provided with pin 19 adapted to be secured in slot 20 of the member 21. If the last mentioned means is employed to secure the guard to the shaft 17, member 21 is formed as a part of the guard 18. The guard 18 is of greater diameter than the diameter of the largest basket and is provided with downwardly extending flange member 22 which has offset 23 therein. In the member 22 are slots 24 which are adapted to cooperate with pins 25 in securing basket 26 to the guard member.

Basket 26 may be constructed of screen mesh of such size as to permit relatively free passage of the washing solution through the parts placed within the baskets. Near the top of basket 26 is secured reinforcing member 27 in which is secured pins 25.

Secured to the reinforcing member 27 and completely surrounding the basket 26 are protector members 29. These protector members are spaced apart from the basket so as to prevent damage to the basket, they also act in such a manner as to increase the agitation of the cleansing solution and thus insure a thorough cleaning of the parts in the baskets.

Inside of basket 26 and pivotally connected to member 27 by members 30 is basket 31. Basket 31 is provided for holding the small watch parts such as the balance and hair springs. This basket is so arranged and secured within the basket 26 that the bottom of basket 31 is spaced apart from the bottom of basket 26. The cover for basket 26 also acts as a cover for the basket 31. Around the open end of the basket 31 is secured member 32 and from this member extend members 30.

In Figure 5 is shown a chuck member comprising a hollow threaded member 33 having a slot 34 in one end thereof, this slot is adapted to cooperate with pin 19 in securing the chuck to shaft 17, a member 35 and screw threaded member 36. The screw threaded member 36 is provided with a plurality of fingers 37 at one end thereof. The chuck member is for holding general utility tools for jewelry working that can be utilized for drilling, sawing, and buffing.

Having thus described the invention, I claim:

1. In a watch cleaning machine the combination with an electric motor of a rotatable shaft

removably connected to said motor and driven thereby, a guard of greater diameter than the basket to which it is secured secured to one end of said shaft, a screen mesh basket removably attached to said guard, a rigid band secured to the upper edge of the basket, guard members connected to the said band secured to the upper edge of said basket and extending around said basket in spaced relationship thereto, and a screen mesh basket mounted within the first mentioned screen mesh basket and supported in spaced relation to the bottom of first said basket.

2. In a device of the character described, a screen mesh basket, a cover for said basket adapted to be removably secured thereto, a shaft attached to said cover, means for rotating said shaft, guard members secured to one edge of said basket and extending around said basket in spaced relation thereto, and a second basket secured in the first basket.

3. In a device of the character described, an open mesh basket, a cover for said basket, guard members secured to said basket and extending around said basket in spaced relation thereto, and means for causing said basket to rotate.

4. In a device of the character described, a screen mesh basket, a reinforcing band secured to the upper edge of the basket, pins extending from said band, a series of members secured to said band and extending around the basket in spaced relation thereto, a second basket pivotally secured within said first mentioned basket, a cover for the baskets, a flange extending from said cover and having slots therein to cooperate with the pins in said band to secure the cover in place, a stud extending from said cover, a shaft removably secured to said stud and means for rotating shaft.

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