June 24, 1930. H. KEHN 1,767,370

WASHING DEVICE FOR SEPARATOR DISKS

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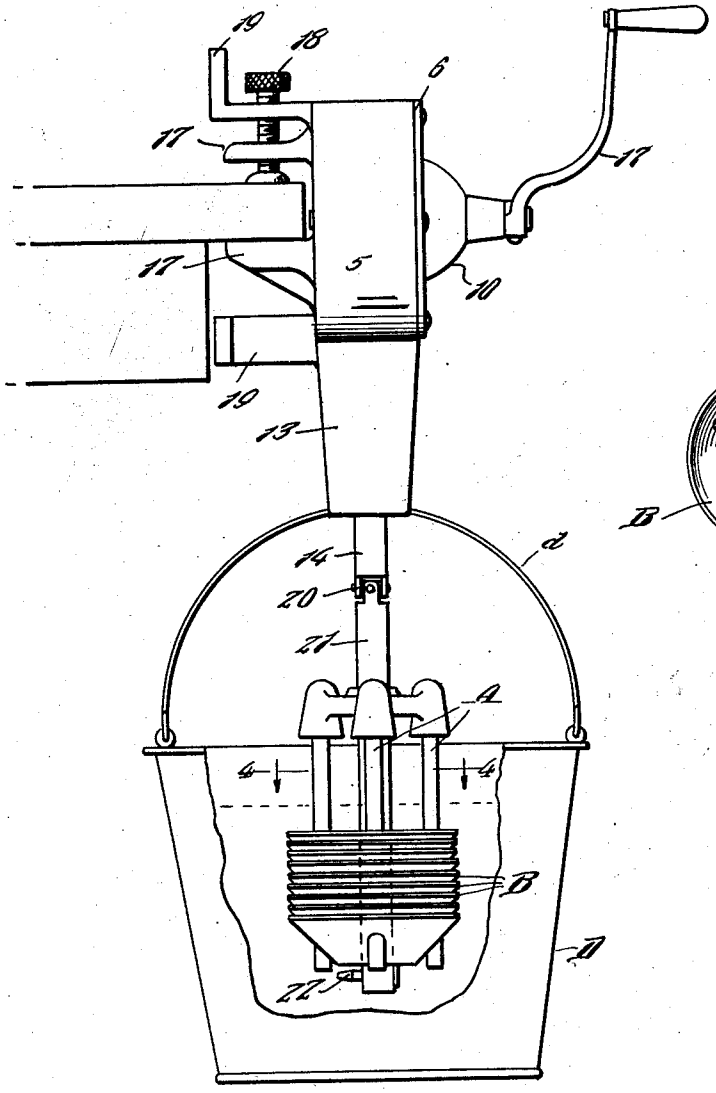
Fig. 1.



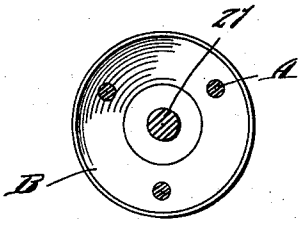


Fig. 4.

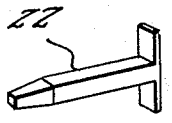


Fig. 5.

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Fig. 2.

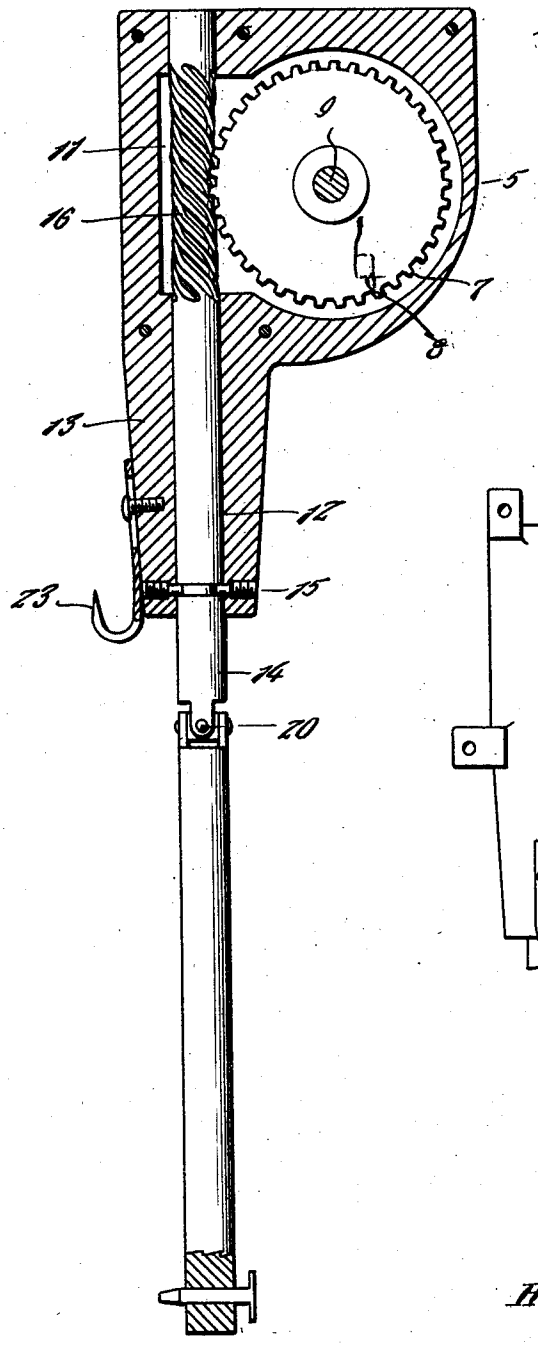


Fig. 3.

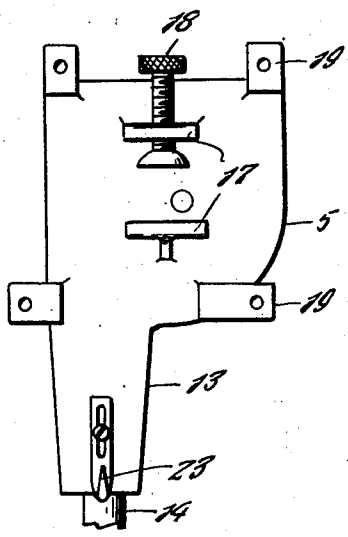
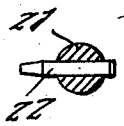


Fig. 6.



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Patented June 24, 1930 1,767,370

UNITED STATES PATENT OFFICE

HARRY KEHN, OF GOODRICH, NORTH DAKOTA

WASHING DEVICE FOR SEPARATOR DISKS

Application filed October 8, 1928. Serial No. 311,157.

This invention relates to new and useful improvements in washing devices, particularly adaptable for use in washing of disks of separating machines, and aims to provide a novel, simple and useful household device that may be attached to the edge of a table or other support and with which may be associated the frame and separating disks of a separator. Furthermore, means is provided whereby a bucket of water or other cleaning substance may be suspended from the device to receive the separator frame and disks. Manual means is provided for rotating the frame and disks within the bucket of water resulting in the thorough cleaning of the frame and disks.

In the drawings wherein like reference characters indicate corresponding parts throughout the several views:

Figure 1 is a side elevation of my improved washing device as actually used.

Figure 2 is an enlarged detail section through the housing of the device.

Figure 3 is a rear elevation of said housing.

Figure 4 is a transverse section taken substantially upon the line 4—4 of Figure 1 looking downwardly in the direction of the arrows.

Figure 5 is a perspective of a detachable shaft pin for use in securing the frame and disks upon the rotating shaft of the washer, and

Figure 6 is a transverse section through the shaft directly above the pin associated therewith.

Now having particular reference to the drawing, my novel device consists of a gear casing 5 of suitable size and shape open at its front side to permit access to the interior thereof, but this front side being normally closed by a cover plate 6. The interior of this casing 5 is formed to provide a circular pocket 7 within which is a worm gear 8 supported upon a shaft 9 journaled through the back wall of the housing and through a suitable bearing unit 10 associated with said cover plate 6. At the side of this circular portion 7 of the housing and communicating therewith is a vertical chamber 11 that communicates with a vertical bore 12 in a shaft collar 13 formed integrally with and depending from said casing as more clearly illustrated in Figure 2.

Journaled through the bore of this collar and extending through the vertical passage 11 in the casing is a shaft section 14. This shaft is detachably secured within the casing through the medium of opposed key screws 15—15 threaded in the lower end of the collar as illustrated also in Figure 2. Within the vertical space 11 of the said casing 5, this shaft section 12 is formed with worm teeth 16 that have mesh with the teeth of the worm gear 8. Upon the outer end of the said shaft 9 there is detachably arranged a suitable crank handle 17'.

The rear side of the casing 5 is equipped with a pair of spaced clamp jaws 17—17 through the upper one of which is threaded a clamp screw 18. These jaws and screws providing means whereby the device may be rigidly secured to the edge of a table or other support as indicated in Figure 1. Furthermore, the rear wall of the casing 5 adjacent the four corners thereof is provided with a series of horizontal brackets 19, the ends of which are bent outwardly at right angles and provided with openings to provide attaching lugs whereby the device may be secured to a wall, post or the like, through the medium of screws or nails.

Universally associated with the lower end of the shaft section 14, as at 20 is a further shaft section 21 for the reception of a separator machine frame A with which are associated the usual separating disks B. Adjacent the lower end of the shaft section 21 there is formed a transverse keyway for receiving a pin 22. This pin is arranged within the keyway after the disk carrying frame A has been arranged upon the shaft section 21 for the obvious purpose of securing the frame against displacement with respect to said shaft section.

Adjustably associated with the shaft collar 13 of the housing 5 directly above the lower end thereof is a bucket suspending hook 23 upon which the bail *d* of a conventional water bucket D is to be disposed, the application

of the bucket to the device resulting in the submergence of the separator disks B and the lower end of the frame A within the water or cleaning fluid within the bucket. Obviously after the device has been set up as illustrated in Figure 1, a turning of the crank handle 17 will result in the rapid turning of the shaft sections 14 and 21, this movement being then imparted to the separator frame A and disk B. Obviously, therefore, the disks and frame will be thoroughly washed. After the washing operation the water can be exhausted from the bucket and the bucket removed and a further turning of the handle 17 will bring about the drying of the frame and the separator disks.

In view of the foregoing description when considered in conjunction with the accompanying drawings, it will be apparent that I have provided a novel, simple, inexpensive, but highly useful device for separator disks that is well adapted for all the purposes heretofore designated, and even though I have herein shown and described the invention as consisting of certain detail structural elements it is nevertheless to be understood that some changes may be made therein without affecting the spirit and scope of the appended claim.

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

A device of the character described comprising a casing, a vertical shaft section journalled with the casing and depending therefrom, means on the casing whereby the casing may be attached to a supporting surface, a second shaft section coupled to the first shaft section for receiving a separator frame to be washed, means on the lower end of the second shaft section for supporting said separator frame, and means connected with the casing adjacent the first shaft section for supporting a container of washing liquid, the application of which will result in the immersion of the frame in the liquid.

In testimony whereof I affix my signature.

HARRY KEHN.