Feb. 18, 1930. I. L. COOK 1,747,930

DEVELOPING RACK

Filed Aug. 15, 1927

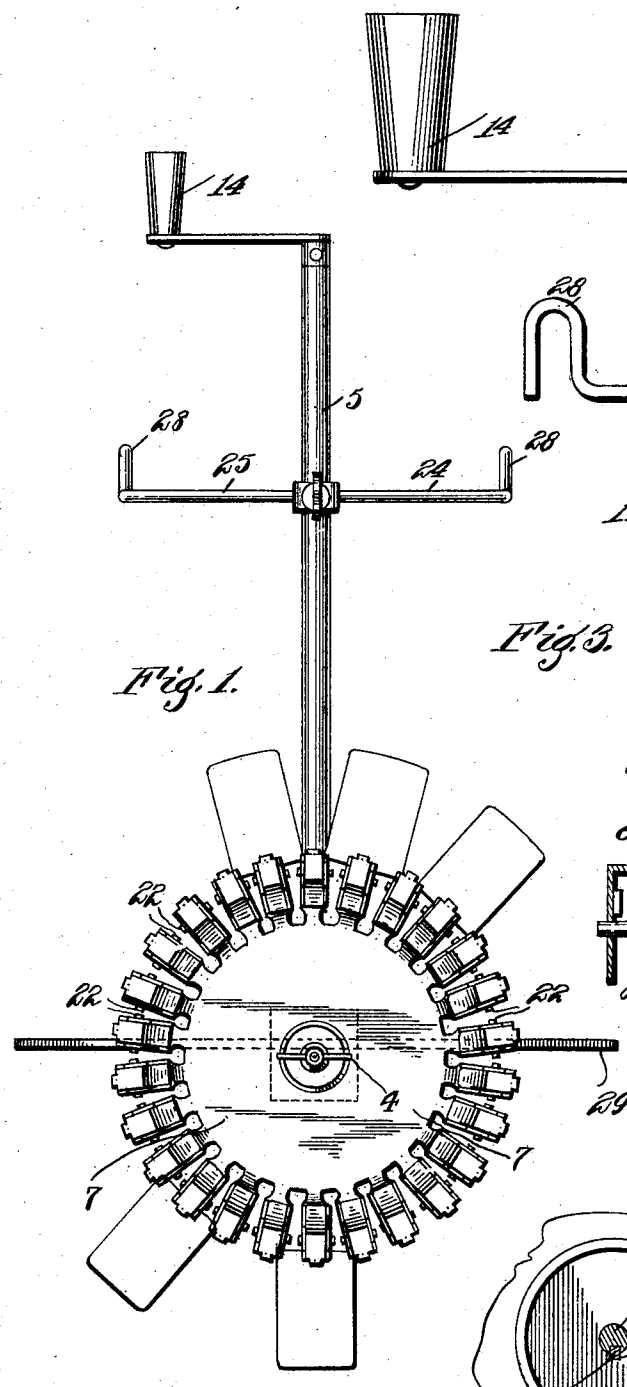


Fig. 1.

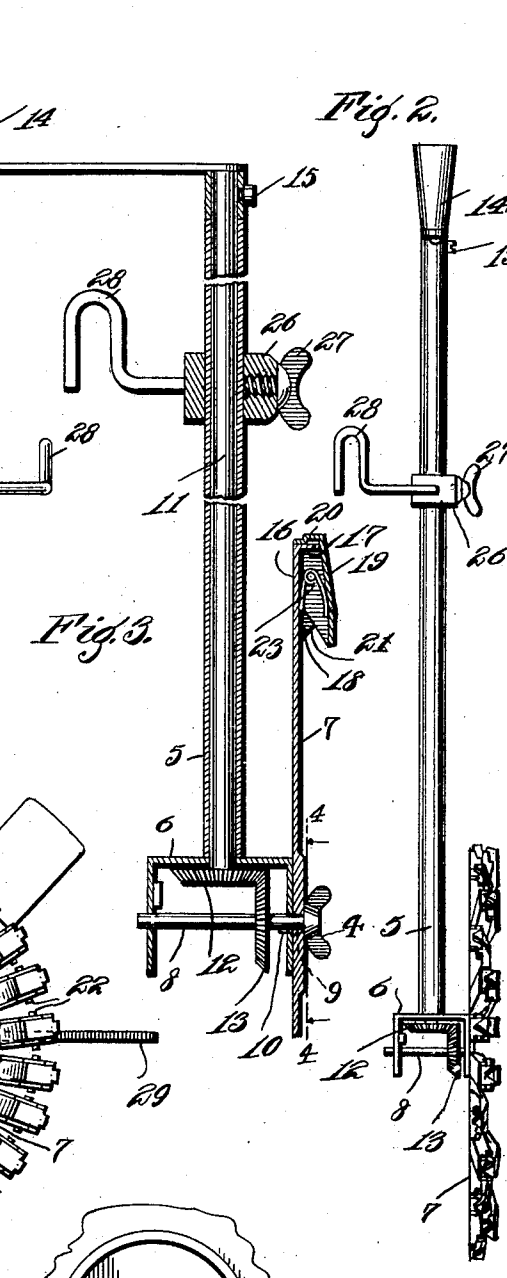


Fig. 2.

Fig. 3.

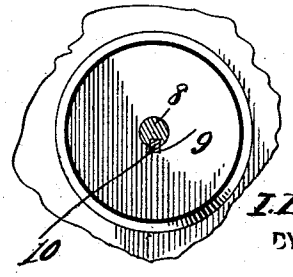


Fig. 4.

INVENTOR
I. L. Cook.
BY
ATTORNEY

Patented Feb. 18, 1930

1,747,930

UNITED STATES PATENT OFFICE

IRVING LESTER COOK, OF GILLETT, WISCONSIN

DEVELOPING RACK

Application filed August 15, 1927. Serial No. 213,057.

My invention relates to photographic film racks and an object of the invention is to provide a device of this character whereby the films may be subjected to the developing bath and subsequently rapidly dried.

The invention further contemplates a rotary film holder which is operable to rotate the films in the developing bath and then operated to dry the films by centrifugal action.

Further the invention contemplates a hand device for developing and drying photographic films.

With the preceding and other objects and advantages in mind the invention consists in the combination of elements, constructions and arrangement of parts and operations to be hereinafter specifically referred to, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation of my invention;

Figure 2 is a longitudinal sectional view of the same;

Figure 3 is an edge elevation, and;

Fig. 4 is a vertical section taken on line 4—4 of Fig. 3.

Referring to the invention in detail a tubular member 5 carrying an inverted U-shaped bracket 6 at its inner end, is provided.

A film rotating disk 7 is arranged at one side of the inverted U-shaped member 6 which is fixed to the projecting end of a stub shaft 8 journaled in the parallel legs of the inverted U-shaped member, the latter being welded or otherwise secured to the lower end of the tubular member.

For the purpose of permitting the disk to be removed with a group of films attached thereto for drying and a second disk mounted on the stub shaft, a plurality of disks is provided each having a keyway 9 receiving a key 10 on the stub shaft. A wing nut 4 is threaded on the stub shaft to detachably hold the disk thereon.

To rotate the disk a power shaft 11 extending longitudinally through the tubular member is provided and carries a bevelled gear 12 at its inner end meshing with a similar gear 13 fixed to the stub shaft 8. A crank handle 14 detachably held to the outer end of the power shaft by a set screw 15 constitutes a medium for rotating the power shaft. If desired the crank handle may be removed and the power shaft driven from any other suitable source of power.

For the purpose of detachably holding the films to the disk the latter is formed with a plurality of spaced radial rigid clamping members 16 each of which is formed with a right angularly disposed jaw 17 and a pair of lateral parallel flanges 18. Opposed to each of these rigid jaws and cooperating therewith in retaining a film therebetween is a pivoted jaw 19 formed with an oppositely extending right angular jaw 20. A pair of parallel flanges 21 extends laterally from each of these pivoted jaws, the latter flanges being disposed between the flanges 18 of each rigid jaw and pivoted thereto by a pivot pin 22. An expansible coil spring 23 is interposed between each pair of coacting jaws to urge the movable jaws towards the fixed jaws.

As illustrated in Figure 2, each alternate pair of coacting clamping members is offset from the opposite faces of the disk so that a maximum number of photographic films may be carried thereby without contacting with each other.

To suspend the device from a support, a bracket 24 consisting of a horizontal rod 25 carried by a collar or ring 26 and terminating in laterally extending parallel inverted U-shaped hooks 28, adapted to engage a suitable support, is provided. The ring or collar 26 is adjustable longitudinally on the tubular member and is retained in adjusted position by a set screw 27, threaded transversely through this collar or ring.

In order to prevent contact of the films with the walls of the developing bath receptacle, a gage bar 29 extends parallel to the rear face of the disk and is attached to the U-shaped member. As illustrated in Figure 1, the ends of the bar project beyond the disk and the outer ends of the films carried thereby. It will be observed that by reason of this gage bar, the films cannot come in contact with the walls of the receptacle and thereby damaged or mutilated, due to the fact that the ends of the bar coming in contact with the walls of

the receptacle, will space the disk a considerable distance therefrom.

In use, the disk carrying the films is rotated in the film developing bath by rotation of the drive shaft from the crank handle, or otherwise. In this manner the films are effectively developed without any danger of injury or mutilation. After the films have been rotated for a sufficient period of time in the developing bath, they are dried by the centrifugal action of the rotating disk, which throws the moisture therefrom.

I claim:—

1. In a device of the character described, a bracket, a disk rotatably supported at one side thereof, means for attaching articles thereto to be dried, a tube extending from the bracket and disposed parallel to the plane of rotation of the disk, and a drive shaft received in the tube and having operative connection with the disk to rotate the latter and dry the articles carried thereby.

2. In a device of the character described, a bracket, a disk rotatably supported at one side thereof, means for attaching articles thereto to be dried, a tube extending from the bracket and disposed parallel to the plane of rotation of the disk, a drive shaft received in the tube and having operative connection with the disk to rotate the latter and dry the articles carried thereby, and a suspension bracket carried by the tube by which the device may be suspended.

3. In a film drying device, a bracket, a film carrying disk rotatably supported at one side thereof, a tube extending vertically from the bracket, a shaft rotatable therein and having operative connection with the disk, a crank handle upon the upper end of the shaft, and a suspension bracket carried by the tube whereby the device may be suspended in a vertical plane.

4. In a drying device, an inverted U-shaped bracket, a horizontally disposed shaft journalled therein, a drying disk revoluble with the shaft and removable therefrom, a vertically disposed tube extending from the intermediate leg of the bracket, a drive shaft in the tube and having operative connection with the first mentioned shaft, and a crank handle fixed to the upper end of the shaft.

5. A film developing and drying device comprising a bracket, a film carrying disk rotatably supported at one side thereof, a tube extending from the bracket, a shaft revoluble in the tube and having operative connection with the disk, a gauge bar attached to the bracket and extending at right angles to the tube and having its ends projecting beyond the edge of the disk for preventing the latter from coming in contact with the walls or a receptacle when the disk is placed in a developing bath, and means for rotating the shaft.

IRVING LESTER COOK.