July 1, 1930. J. W. DUNN 1,768,895

MOTION PICTURE FILM TREATING DEVICE

Filed Nov. 5, 1928 2 Sheets-Sheet 1

Fig. 1

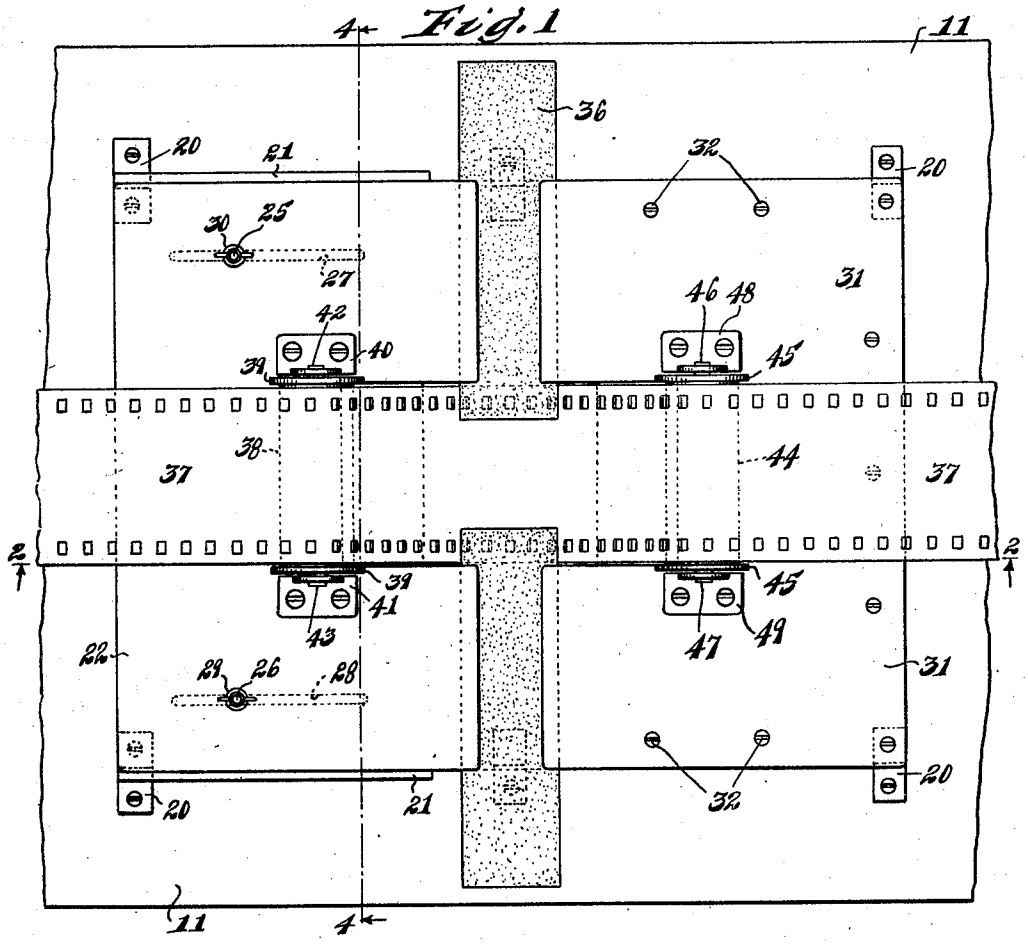
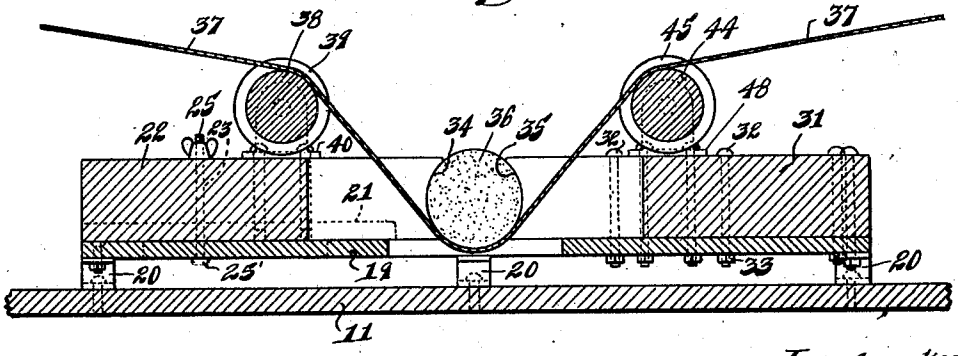


Fig. 2



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MOTION PICTURE FILM TREATING DEVICE

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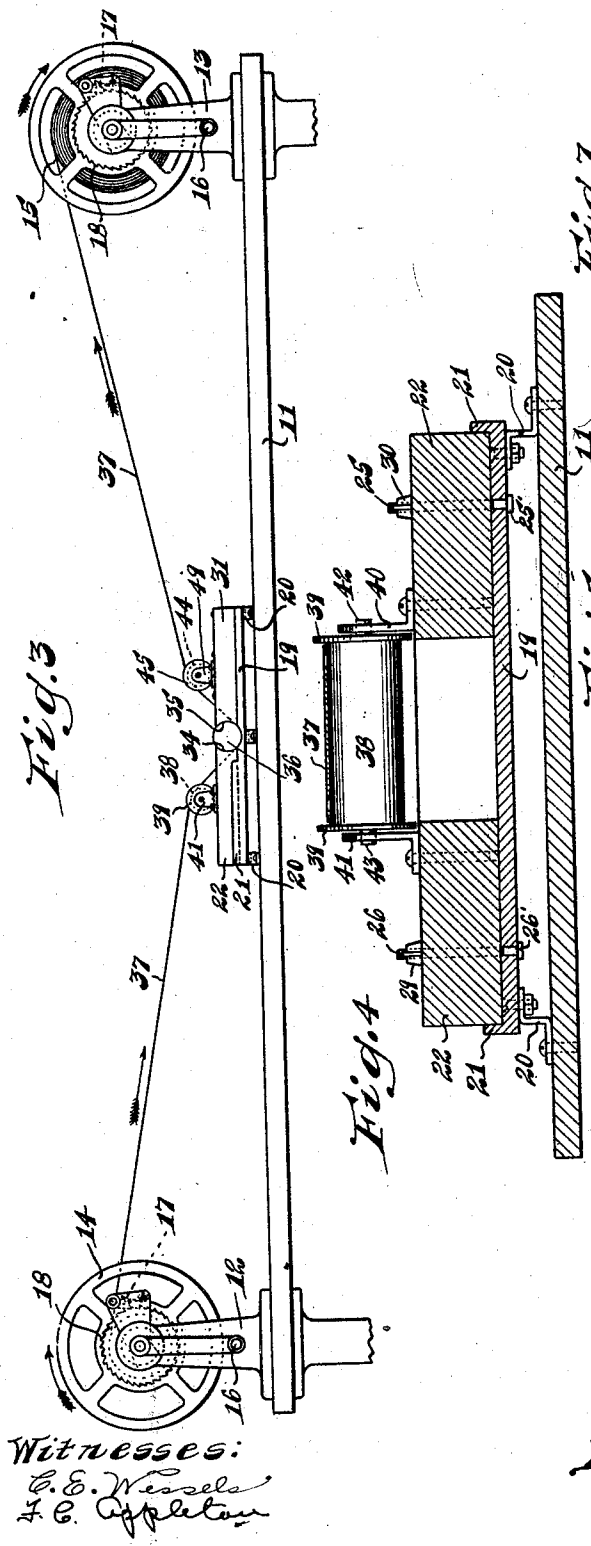


Fig. 3

Fig. 4

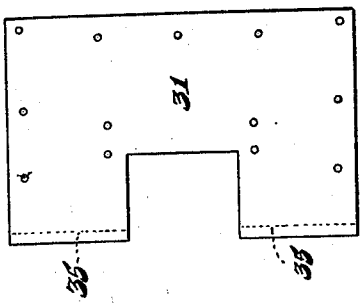


Fig. 7

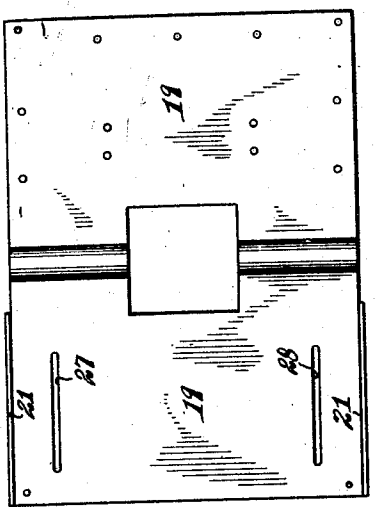


Fig. 5

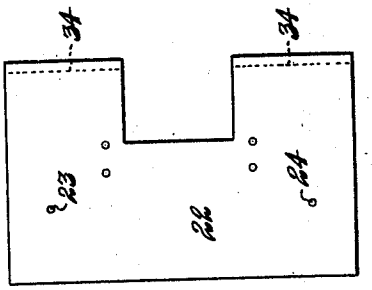


Fig. 6

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Patented July 1, 1930

1,768,895

UNITED STATES PATENT OFFICE

JOSEPH W. DUNN, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO DANIEL LUBLINER, OF CHICAGO, ILLINOIS

MOTION-PICTURE-FILM-TREATING DEVICE

Application filed November 5, 1928. Serial No. 317,139.

This invention relates to a motion picture film treating device, having for its object the provision of a device of the type indicated, of comparatively simple design and construction, positive in operation and particularly designed and adapted to wax the margins of new films in a convenient, practical manner.

Another object is to provide a time and labor saving device for waxing new films preparatory to actual use in motion picture projectors.

Additional objects and advantages of the method and construction employed will appear more fully in the hereinafter described details, when taken in connetcion with the accompanying drawings in which

Figure 1 is a plan view of the device;

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1;

Fig. 3 is a side elevation of the device as it appears in actual operation;

Fig. 4 is a transverse section taken on line 4—4 of Fig. 1;

Fig. 5 is a plan view of the bed plate;

Fig. 6 is a plan view of the slidable block, and Fig. 7 is a plan view of the fixed block which cooperates with the slidable block.

In the drawings, 11 designates a base to which the standards 12, 13 having the similar film winding reels 14, 15 revolvably supported thereon, are secured. The reels 14, 15 are of conventional pattern, operated by handles 16 having the usual back lash check consisting of the pawl 17 and ratchet wheel 18, these details in themselves being conventional in the art and forming no part of my invention.

The device embodying my invention in its preferred form comprises a plate 19 adjustably supported on and secured to brackets 20 fastened to the base 11. Slidably mounted on the plate 19 and guided between the integral flanges 21 thereof is a block 22 having holes 23, 24 to receive the bolts 25, 26 respectively. The lower ends of the shanks of the bolts 25, 26 pass through slots 27, 28 formed in the plate 19, the heads 25′, 26′ of the bolts slidably contacting with the bottom of the plate. Wing nuts 29, 30 serve to clamp the block 22 to the plate in the position desired. A corresponding fixed block 31 is also secured to the plate 19 by bolts and nuts 32, 33. It will be seen that I have provided the slidable and fixed blocks with concave edges 34, 35 between which sections of tallow or paraffin candles 36 are secured, the concave edges being of an arcuate formation adapted to partially encircle the candle sections 36 whereby the latter may be firmly held in position for the waxing of the film. The film 37 is led from one of the winding reels 15 over a roller 38 having a guiding flange 39 which serves to retain the film in an even channel. The roller 38 is rotatably supported on brackets 40, 41 by pins 42, 43 secured in the body of the roller, the brackets being screw fastened to the block 22. After passing over the roller 38 the film is passed downwardly under the candle sections 36 to engage the latter with the margin of the film, as best shown in Fig. 1. The film thence passes over the roller 44 having a guiding and retaining flange 45, this latter roller being pivoted by the pins 46, 47 on the brackets 48, 49 to the fixed block 31 in the same manner as has been indicated with reference to roller 38. The film after passing over the last roller is wound on the other of the reels 15.

In actual operation, the waxing of the films is accomplished by passing the margin of the film under the tallow or paraffin candle sections 37 and then turning either of the handles 16 to wind the new film from one reel to the other while being subjected to the waxing process indicated. By this method, the waxing can be accomplished expeditiously and with a minimum of effort and material. Conventional tallow or paraffin candles of approximately three-quarters of an inch in diameter are employed, but of course any suitable wax substitutes for the candle may be employed.

As is well known, it is essential to wax the margin of a cinematograph film since if this is not done, at the first projection thereof, it will be found in the majority of instances that the new film will either tear or adhere to some part of the projector, particularly the guides therein. Should the film stick in this manner during actual projection, the intense heat

generated by the arc illuminators used will likely cause the ignition and possible destruction of the film while the continuity of the scenario is seriously disrupted. The method heretofore in vogue has been to subject the new film to an oiling at the margins thereof, this being accomplished by the operator, by a cloth moistened with oil passed manually over the margins of the new film. This method was not only inconvenient but frequently occasioned the blurring and fogging of long sections of the film by the oil overrunning the margins into the central portions of the film. By the present method I have found the two sections of candle illustrated to be sufficient for waxing four or five films before bringing a new surface of the candles in contact with the film to be treated, which is done by loosening the wing nuts 29, 30 and sliding back the movable block 22 thereby releasing the candle sections which may be turned to present new surfaces to the margin of the film. As the price of the candles used is nominal, it will be seen that the method is not only efficient, but also economical.

I have described and illustrated merely a preferred form of my invention, since it will be obvious to those skilled in the art to which this invention appertains that various changes and modifications may be made in the structure thereof without departing from the spirit or sacrificing any of the advantages of the invention as defined by the appended claims.

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

1. A cinematograph film treating device comprising, in combination, a base, a supporting plate on said base, a pair of blocks on said supporting plate, a pair of film guiding rollers mounted on said blocks, one of said blocks being slidably adjustable relative to said plate, the other of said blocks being fixedly secured on the said plate, both of said blocks having concaved edges whereby when said adjustable block is moved, a waxing material may be optionally released and clamped between said blocks, while one of said pair of film guiding rollers is simultaneously moved, causing an alteration in the degree of tension with which a film is applied to said waxing material.

2. A cinematograph film treating device, comprising a plurality of film winding reels, a supporting plate, blocks on said plate, one block being adjustable with respect to another, said blocks having recessed meeting portions to clampingly receive a waxing substance therebetween, and film guiding and confining rollers mounted on said blocks whereby said guiding and confining rollers are simultaneously adjusted with said blocks to maintain a definite degree of tension with which a film is applied to the waxing substance.

3. A cinematograph film treating device, comprising a pair of blocks, one of which is adjustable relative to the other, a pair of film guiding and retaining rollers mounted on said blocks, and a pair of candle sections clampingly secured between the meeting portions of said blocks whereby said candle sections may be moved and turned to present new surfaces to the margins of a film held in engagement therewith between said film guiding and retaining rollers.

4. A cinematograph film waxing device, comprising a base, a pair of film winding reels on said base, a supporting plate on said base between said winding reels, a pair of blocks mounted on said plate, one of said blocks being slidably adjustable relative to the other, said blocks having concaved meeting edges to clampingly receive candle sections therebetween, candle sections accordingly received between said blocks and engageable with the margins of a film, said candle sections being movable and turnable for adjustment, and film guiding and retaining rollers mounted on said block whereby to hold the film in engagement with said candle sections and being adjustable simultaneously with the adjusting of said blocks.

In testimony whereof I have signed my name to this specification.

JOSEPH W. DUNN.