S. H. NUCKOLLS.

REINKING MACHINE FOR THE RIBBONS OF MULTIGRAPH MACHINES.

APPLICATION FILED AUG. 15, 1917.

1,253,869. Patented Jan. 15, 1918.

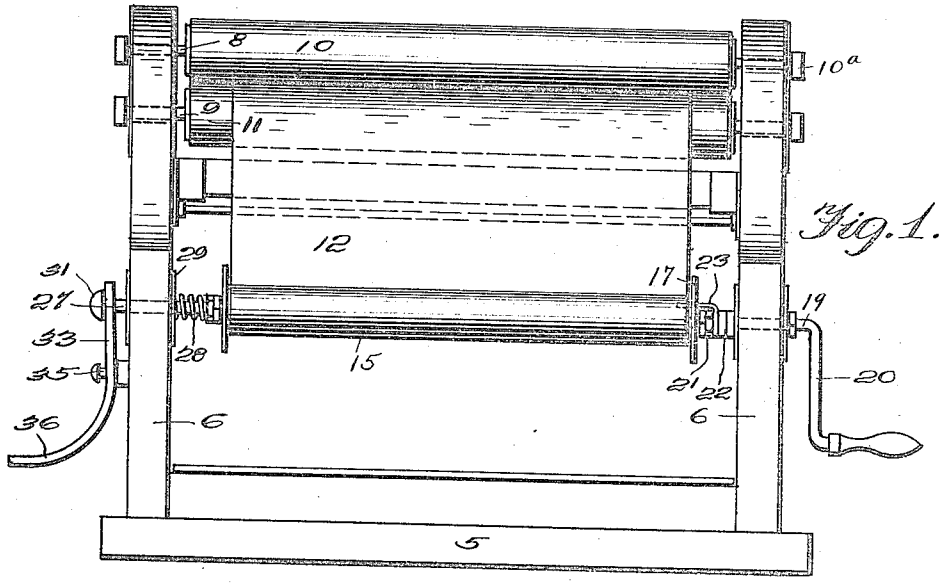


Fig. 1.

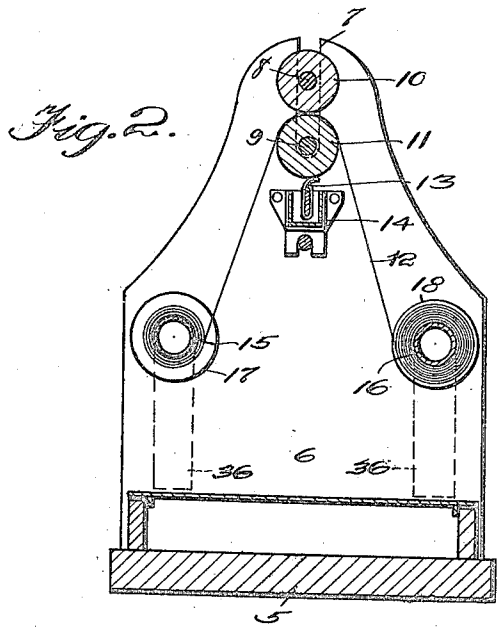


Fig. 2.

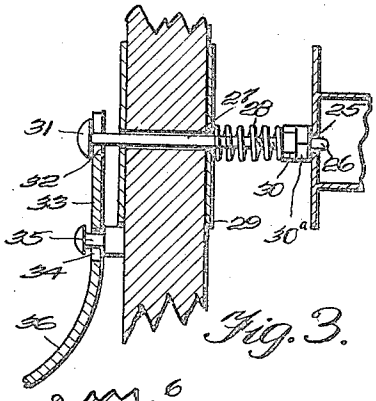


Fig. 3.

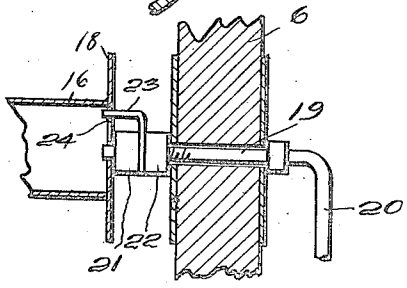


Fig. 4.

Witness.

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UNITED STATES PATENT OFFICE.

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REINKING-MACHINE FOR THE RIBBONS OF MULTIGRAPH-MACHINES.

1,253,869. Specification of Letters Patent. Patented Jan. 15, 1918.

Application filed August 15, 1917. Serial No. 186,348.

To all whom it may concern:

Be it known that I, SAMUEL H. NUCKOLLS, a citizen of the United States of America, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Reinking-Machines for the Ribbons of Multigraph-Machines, of which the following is a specification.

This invention relates to a reinking machine for the ribbons of multigraph machines, and its object is to provide an improved and simplified device of this character embodying certain features of advantageous construction by virtue of which ribbons may be expeditiously reinked in a very efficient manner.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawing:

Figure 1 is a side elevation of a ribbon reinking machine constructed in accordance with the invention.

Fig. 2 is a central vertical sectional view therethrough.

Fig. 3 is a vertical sectional view illustrating the tensioning and releasing means for one of the ribbon spools and

Fig. 4 is a sectional view illustrating the winding mechanism of one of the said spools.

Like numerals designate corresponding parts in all of the figures of the drawing.

The improved reinking machine comprises a base 5 and end standard 6, the latter being slotted as indicated at 7, for the reception of spindles 8 and 9. These spindles carry nuts 10^a at their ends, whereby said spindles are prevented from moving endwise out of the slot 7. Mounted to turn freely on the spindles 8 and 9 are rolls 10 and 11 which constitute the inking rolls between which the ribbon 12 passes. The roll 11 receives ink from an inking pad 13, of felt or other material, adapted to conduct ink by capillary action from a fountain 14 to said roll 11, while the roll 10 aids in distributing the ink smoothly and evenly over the ribbon 12. It is to be particularly noted that the rolls 10 and 11 are not mounted to turn with the spindles 8 and 9 but are mounted to turn freely upon said spindles. This is particularly advantageous in the case of the roll 10, because by suitably oiling the spindle 8, the roll 10 may move endwise to a slight degree to further aid in the distribution of the ink, and to prevent the ink from running in streaks, but at the same time the film of oil will render this endwise movement of the roll a very slow and gradual one, instead of permitting the roll to thrash rapidly back and forth.

The ribbon 12 is wound upon spools 15 and 16 that have end flanges 17 and 18 and these end flanges serve to receive actuating and tensioning elements by which the rolls are mounted for proper tensioned rotation as will be presently described. The spools 15 and 16 are identical in construction and consequently a description of one will serve as a description of both. At one end of the rolls 15 and 16 a shaft 19 is journaled in the end wall or standard 6 and these shafts are provided with handles 20. The inner ends of these shafts are threaded to receive nuts 21 and 22 between which L shaped members 23 are bound, the extremities of which members are adapted to engage in openings 24 formed in the corresponding end flange of one of the rollers 15 and 16 as the case may be, and this structure provides means, whereby, through the medium of the handle 20, rotation may be imparted to one roll or the other.

At the opposite end of each of the rolls the end flange is perforated as at 25 for the reception of the end 26 of an endwise movable shaft 27. Springs 28 bear between wear plates 29 of the standard 6 and nuts 30 that are threaded upon the shaft 27. The shafts 27 are headed at 31 and are embraced by the forked end 32 of a rock lever 33, said rock lever having an elongated opening 34 formed therethrough, through which a pin 35 passes. The lower ends of the rock levers 33 are curved sharply outward, as at 36, and this provides a structure whereby a downward thrust of the hand upon the outwardly curved portion 36 of the rock lever pulls outwardly upon the shaft 27 against the tension of spring 28 and thereby withdraws the reduced end 26 of said shaft from the opening 25 and releases the corresponding spool. The provision of the curved rock lever is important since otherwise it would be necessary to draw straight outwardly upon shaft 27 which would tend to move the machine as a whole sidewise.

By the provision of nuts 30 and 30^a it is possible to adjust the tension of the springs 28 and this in turn adjusts the tension ex-

erted upon the corresponding spool. It will therefore be seen that the structure illustrated in Fig. 3 for example provides means for tensioning the roll and also provides means for the ready release of the spool.

While the elements shown and described are well adapted to serve the purposes for which they are intended it is to be understood that the structure shown in the accompanying drawing is merely exemplary and that the invention includes within its scope such changes as fairly come within the spirit of the appended claim.

Having described my invention what I claim is:

In a reinking machine the combination with a frame comprising spaced, vertical, side members, of a spool extending between said side members, a shaft slidable through one of said side members and having a part to engage the spool and upon which the spool rotates, an element adjustable upon the shaft which engages the spool to tension the same, a spring bearing between said element and the side member of the frame through which the shaft slides, a head upon the shaft outwardly of the frame, a pin outstanding from the side member of the frame below said shaft, a lever made of a flat strip of metal having an opening therethrough for the passage of the pin, a forked upper end which engages behind the head of the shaft and an outwardly curved lower hand engaging portion and a boss carried by the frame and lying in the rear of the lever, the opening through the lever being enough larger than the pin to permit the lever to rock in a plane parallel with the pin.

In testimony whereof I affix my signature.

SAMUEL H. NUCKOLLS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."