J. DOREL.

HAND INKING ROLLER FOR INKING CLICHÉS.

APPLICATION FILED FEB. 25, 1920.

1,380,467.

Patented June 7, 1921.

2 SHEETS—SHEET 1.

Fig. 2

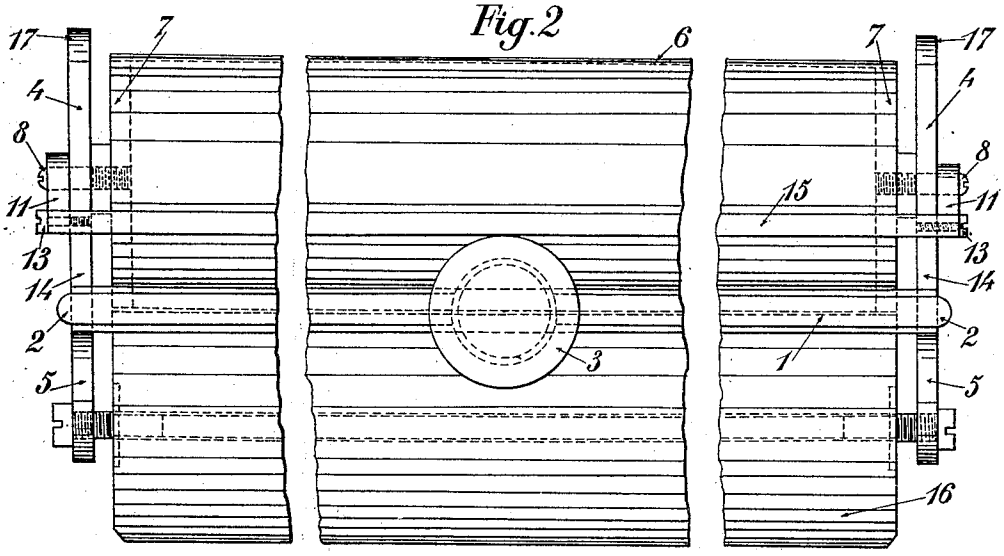


Fig. 1

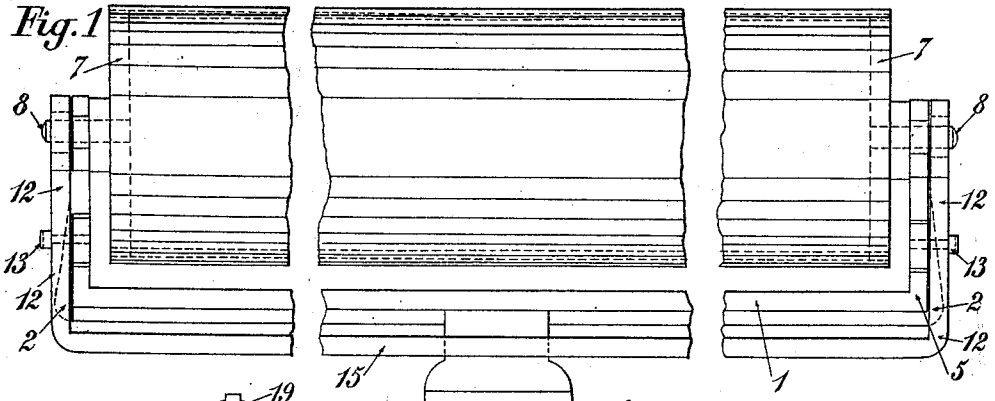
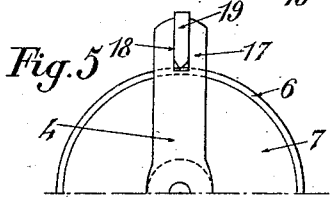


Fig. 5



Inventor:
Jean Dorel,
By Foster, Freeman, Watson & Coit,
Attorneys.

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2 SHEETS—SHEET 2.

Fig. 3

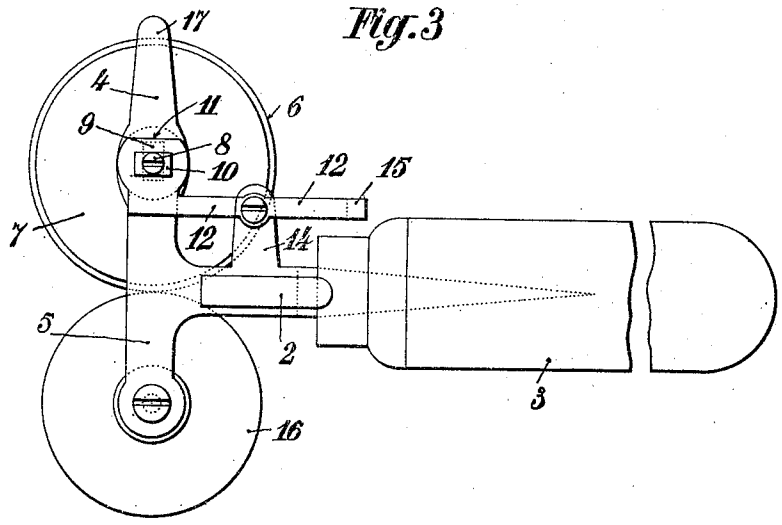
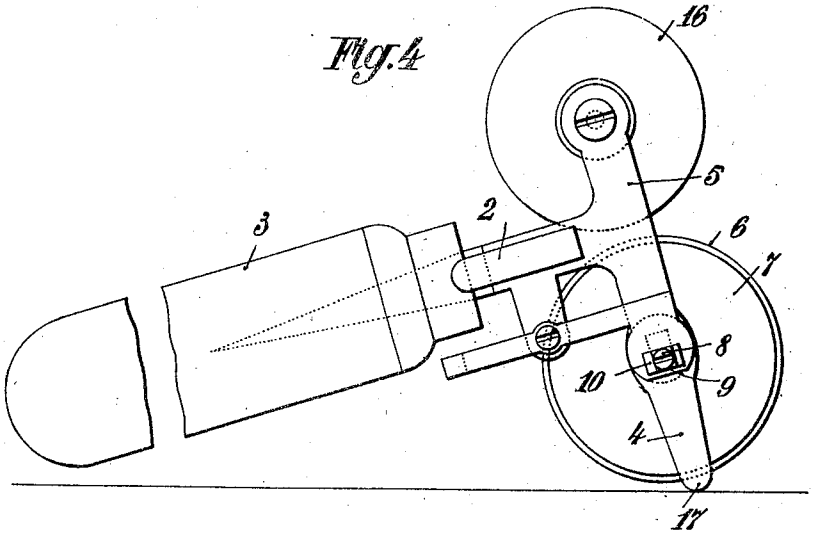


Fig. 4



Inventor.
Jean Dorel,
By Foster, Freeman, Watson & Coit,
Attorneys.

UNITED STATES PATENT OFFICE.

JEAN DOREL, OF VILLE D'AVRAY, FRANCE.

HAND INKING-ROLLER FOR INKING CLICHÉS.

1,380,467. Specification of Letters Patent. Patented June 7, 1921.

Application filed February 25, 1920. Serial No. 361,328.

To all whom it may concern:

Be it known that JEAN DOREL, engineer, a citizen of the Republic of France, and residing at 5 Chemin des Closeaux, Ville d'Avray, Seine-and-Oise, France, has invented certain new and useful Improvements in Hand Inking-Rollers for Inking Clichés, of which the following is a specification.

This invention relates to inking rollers for use in inking gelatin clichés in ferro-gelatin printing processes and the like.

In inking gelatin clichés, the workman uses an inking roller and an inking palette. He holds the palette like a violin and passes the roller over it like the bow of a violin.

In order to ink a cliché of double elephant size (106 x 75 cms.) the workman passes his roller about six times over the cliché and takes ink six times from his palette. He finally proceeds to the cleaning stage which consists in inking the roller and passing it five or six times over the cliché, without renewing the ink. It will be easily understood that these operations are relatively lengthy and the workman is inconvenienced in his work by the palette which he is obliged to hold in his left hand pressed against his body.

The present invention has for its object to provide a roller apparatus which obviates all these difficulties. One construction according to the invention is shown in the accompanying drawings in which:—

Figure 1 is a plan view of the apparatus and

Fig. 2 is a front elevation;

Fig. 3 is a side elevation showing the apparatus with the roller in the working position and

Fig. 4 is a side elevation showing the roller at rest;

Fig. 5 is a view of a detail of the ruler or scraper for removing ink from the roller.

The apparatus consists essentially of a mounting or open frame 1, the short sides and the long side of which are provided with reinforcing members 2. The long side is fitted with a handle 3. The ends of the short sides are prolonged top and bottom (Figs. 2 and 3) so as to form supports 4, 5 for the ink roller and for the inking roller.

Between the upper supports 4 an ink roller is mounted, its surface being formed by a tube of steel, brass or aluminium 6, of about 1 mm. thickness. The two ends of this tube are closed by disks 7 into which the screws 8 forming the journals for the roller are screwed. These screws are passed through vertically elongated slots 9 formed in the supports 4 and through horizontally elongated slots 10 formed in the lug portions 11 (Fig. 3) which are solid with the levers 12 pivoted at 13 to supports 14 on the mounting and forming one piece with a rod 15 arranged longitudinally parallel to the long side 1 of the mounting, and behind and above this long side when the roller occupies the normal working position, Figs. 1, 2 and 3.

It will be obvious that by reason of the above described arrangement, the workman holding the roller by its handle 3 can slightly lift the ink roller in its support 4 by pressing on the bar 15 with his thumb.

A gelatinized inking roller 16 is mounted in the usual manner between the supports 5 of the mounting.

The arrangement is such that when the apparatus is in its normal working position, Figs. 1, 2 and 3, the ink roller rests by reason of its own weight on the inking roller, but it can be lifted out of contact with the latter when the bar 15 is pressed.

The operation of the inking roller will be easily understood from the preceding description. For inking the cliché, it is necessary to furnish ink to the ink roller 6 and thus to the inking roller 16. For this purpose the workman spreads ink on a palette and levels or equalizes it thereon by means of the inking roller 16. The ink being well equalized or leveled, the workman establishes contact between the two rollers so that in its turn the ink roller becomes charged with ink. The rollers being thus charged with ink it will be understood that the workman can ink the clichés for a certain time without the necessity of replenishing the ink, since this ink is furnished by the ink roller as required.

To effect the cleaning of the cliché the workman has only to press the bar 15 with his thumb. The ink roller is then lifted out of contact with the inking roller and this latter operates as if it was alone.

It is known that gelatinized inking rollers should be kept out of contact with surrounding objects when not in use, to prevent the formation of flats or other deformations on their surfaces. The supports 4 of the ink roller are, therefore, extended beyond the

periphery of this roller as shown at 17. When the roller is not in use it is turned over and placed in such a manner that it rests on the end of the handle 3 and on the two extensions 17 as shown in Fig. 4. It is obvious that in this position the inking roller 16 is held out of contact with surrounding objects, and in particular out of contact with the ink roller which falls by its own weight and is separated from the inking roller.

Fig. 5 shows an arrangement which may be used for discharging ink from the ink roller and the inking roller. The members 17 of the supports 4 are prolonged and provided with a slot or groove 18, in which a steel ruler or scraper 19 may be fitted, forming a stopping edge which may rest on the surface of the ink roller 6. The workman presses lightly with one hand on the scraper 19 and at the same time rolls the roller on a flat surface. The ink is thus rapidly discharged from the rollers by the scraper.

What I claim is:

1. Apparatus for inking clichés by hand, comprising in combination a frame having a handle and carrying two superposed rollers, a pivoted operating bar on the frame engaging the ends of the journals of the upper roller and causing, when actuated, this upper roller to be moved vertically out of contact with the lower roller, substantially as described.

2. Apparatus for inking clichés by hand, comprising in combination a frame having a handle and carrying two superposed rollers, a pivoted operating bar on the frame engaging the ends of the journals of the upper roller and causing, when actuated, this upper roller to be moved vertically out of contact with the lower roller, the parts of the frame carrying the upper roller being extended beyond the periphery of the roller and having slots in which a scraper bar may be inserted, substantially as described.

3. In apparatus for inking clichés by hand and in combination a bar having inwardly bent ends, an upward extension on each end of said bar, a downward extension on each end of said bar, a roller mounted between the upward extensions, a roller mounted between the downward extensions, a handle on the bar and means for moving one roller out of contact with the other roller.

4. In apparatus for inking clichés by hand and in combination, a bar having inwardly bent ends, an upward extension on each end of said bar, a downward extension on each end of said bar, an upper roller mounted in vertically elongated slots in the upward extensions, a lower roller mounted between the downward extensions, a handle on the bar, and means for moving the upper roller out of contact with the lower roller.

5. In apparatus for inking cliché by hand and in combination, a bar having inwardly bent ends, an upward extension on each end of said bar, an upper roller mounted with its axis projecting through vertically elongated slots in the upward extensions, a lower roller mounted between the downward extensions, a handle on the bar, a second bar pivotally mounted on the first bar, and inwardly bent ends on the second bar having horizontally elongated slots engaging the projecting ends of the axis of the upper roller.

6. In apparatus for inking clichés by hand and in combination, a bar having inwardly bent ends, an upward extension on each end of said bar, an upper roller mounted with its axis projecting through vertically elongated slots in the upward extensions, a lower roller mounted between the downward extensions, a handle on the bar, a bracket on the upper side of each bent end of the bar, and a second bar with bent ends having horizontally elongated slots engaging the projecting ends of the axis of the upper roller and pivotally secured to the brackets.

7. In apparatus for inking clichés by hand and in combination a bar having inwardly bent ends, an upward extension on each end of said bar, an upper roller mounted with its axis projecting through vertically elongated slots in the upward extensions, a lower roller mounted between the downward extensions, a handle on the bar, a bracket on the upper side of each bent end of the bar, a second bar with bent ends having horizontally elongated slots engaging the projecting ends of the axis of the upper roller and pivotally secured to the brackets, and extensions on the upper extensions on each side of said first bar extending beyond the periphery of the upper roller.

8. In apparatus for inking clichés by hand and in combination a bar having inwardly bent ends, an upward extension on each end of said bar, an upper roller mounted with its axis projecting through vertically elongated slots in the upward extensions, a lower roller mounted between the downward extensions, a handle on the bar, a bracket on the upper side of each bent end of the bar, a second bar with bent ends having horizontally elongated slots engaging the projecting ends of the axis of the upper roller and pivotally secured to the brackets, extensions on the upper extensions on each side of the said first bar extending beyond the periphery of the upper roller and a scraper bar mounted in slots in said extensions beyond the periphery of the upper roller.

In testimony whereof I affix my signature in presence of two witnesses.

JEAN DOREL.

Witnesses:
PAUL COULOMB,
HENRY T. WILCOX.