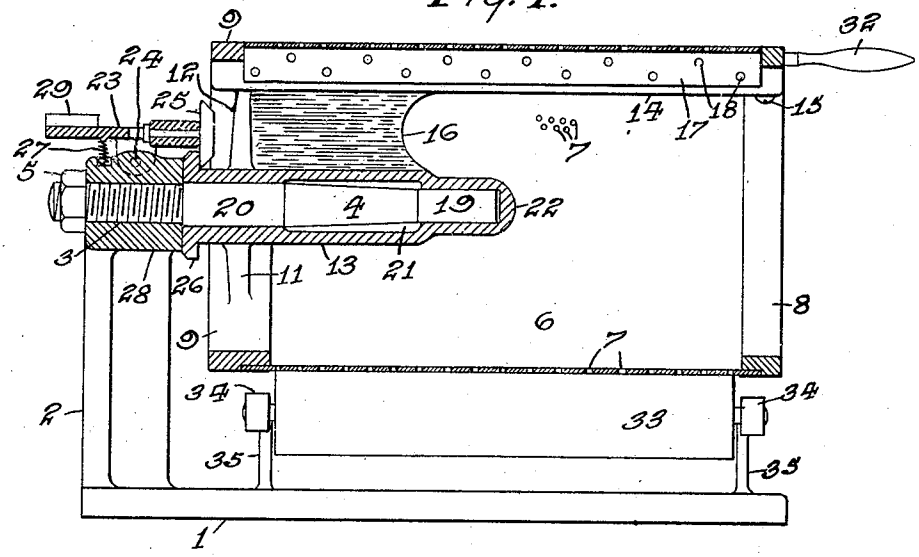
No. 866,083. PATENTED SEPT. 17, 1907.

B. C. STICKNEY.

STENCILING MACHINE.

APPLICATION FILED MAY 31, 1906.

Fig. 1.



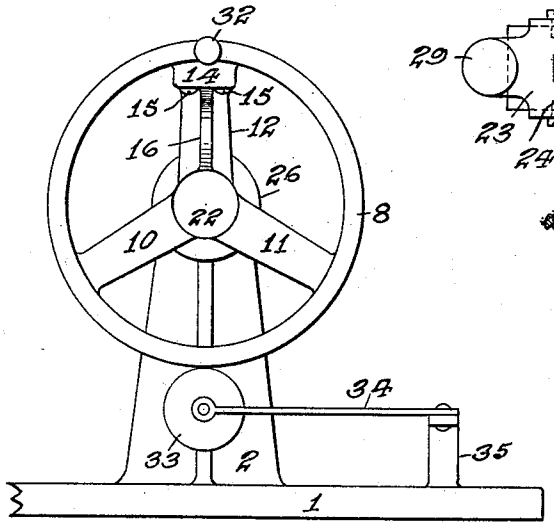


Fig. 2.

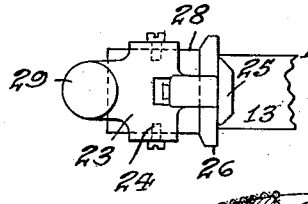


Fig. 3.

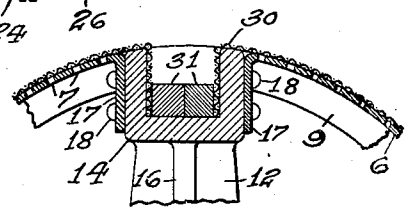


Fig. 4.

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STENCILING-MACHINE.

No. 866,083. Specification of Letters Patent. Patented Sept. 17, 1907.

Application filed May 31, 1906. Serial No. 319,545.

To all whom it may concern:

Be it known that I, BURNHAM C. STICKNEY, a citizen of the United States, residing in Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Stenciling-Machines, of which the following is a specification.

This invention relates to that class of duplicating machines in which a perforated stencil-carrying drum, or in other words a cylindrical ink-screen, is covered with an inking blanket, the ink being applied upon the interior wall of the cylinder or drum, and oozing through the perforations to the blanket, and a stencil sheet being laid upon the blanket; the sheets to be stenciled being then run between the stencil sheet and a pressure roller.

My invention is in the nature of an improvement upon the devices shown in the pending application of Edward F. Kunath, No. 300,692, in which one end of the stencil cylinder is left entirely open, to facilitate access to the interior thereof, for various purposes, principally to apply the ink therewithin; the cylinder in said application being shown detachable from its bearings.

According to the present improvements, the cylinder is provided with a bearing only at one end; that is to say, at one end of the cylinder is a head, and this head is the sole support of the cylinder, the other end whereof is left open.

In the preferred form of the invention, the head is provided with a centrally located interiorly projecting hollow closed journal member, which fits upon a rigidly supported stud provided upon the framing of the machine. The cylinder is held onto the stud by means of a latch, and may readily be slipped off from the stud when the latch is released.

Other features and advantages are hereinafter set forth.

In the accompanying drawings, Figure 1 is a longitudinal sectional elevation of the machine. Fig. 2 is an elevation showing the open end of the cylinder and other parts seen at Fig. 1. Fig. 3 is a plan of the latch which holds the cylinder in place on the framework. Fig. 4 is a transverse section taken through the bar on the cylinder which holds the blanket-securing devices.

Upon a base 1 is erected a standard 2, into which is threaded at 3 the end of a long stud 4, secured by a nut 5, and forming the entire support for a stencil cylinder 6. Said cylinder is formed of a sheet of metal having numerous ink perforations 7 and curved into cylindrical form and fitting upon heads 8 and 9, and rigidly attached to said heads to secure stiffness of the structure. The head 8 is in the form of a ring of about the same diameter as the cylinder, this end of the latter being entirely open for the introduction of ink etc.

The head 9 of the cylinder is in the form of a wheel having spokes 10, 11, 12, and provided with a hub 13, which extends to about the middle portion of the length of the cylinder, and is revolubly mounted upon the stud 4. A bar 14 of U-shape in cross section, Fig. 4, connects the heads 8 and 9, being secured to the head 8 by screws 15, and being cast integral with the head 9 and hub 13, thus producing a stiff framework for the curved metal sheet 6; a web 16 preferably extending between the members 13 and 14 and also joining the spoke 12 and integral with said members, to add to the stiffness of the cylinder.

The ends of the curved plate 6 are bent inwardly at 17, and secured by rivets 18 to the sides of the bar 14, thus conducing to the rigidity of the cylinder.

The bearing surface 19 at the inner end of the stud 4 is of smaller diameter than bearing surface 20 formed upon the outer or base portion of said stud; and the interior bearing surfaces of the hub or hollow bearing member 13 are of corresponding diameters; the member 13 being chambered out as at 21 between its ends. The member 13 is closed at its inner end, as at 22, and forms a dust proof cap for the stud as well as protecting the latter from ink during the application thereof to the inside of the cylinder 6. The stud 4 may be of any suitable length, and projects more or less within the cylinder, and affords a firm support for the latter while being out of the way of the implement used to spread the ink within the cylinder; the latter constituting a hollow drum of sufficient capacity throughout its length to accommodate an inking implement of ordinary character introduced therein.

The cylinder may be slipped endwise upon the stud and there held by a latch 23 pivoted at 24 to the top of the standard 2, and comprising a beveled wheel 25 to engage a collar or flange 26 formed upon the bearing member 13. A spring 27 holds the wheel 25 in engagement with said collar 26, thereby holding the stencil cylinder against endwise displacement in one direction, while the boss 28 of the standard 2 prevents movement of the cylinder in the opposite direction.

Instead of the wheel 25 a plain tooth may be substituted upon the latch, but I prefer the wheel, because it minimizes the friction caused by the rotation of the cylinder.

In order to release the cylinder, it is only necessary to press down the finger piece 29 formed upon the latch, thereby lifting the wheel 25 clear of the flange 26, whereupon the cylinder 6 may be drawn off the stud. After cleaning the cylinder, it may be again placed upon the stud 4, and pressed along the same as far as

it will go, the flange 26 engaging the beveled face of the wheel 5 and lifting the same about the pivot 24, the wheel dropping into place as soon as said flange 26 contacts with boss 28.

The usual ink blanket 30 is held in any suitable way, as by means of bars 31 clamping the ends of the blanket between the side walls of the bar 14; and any suitable or usual means may be applied for holding the stencil sheets. A handle 32 is provided upon the open end or head of the stencil cylinder. The usual pressure roller 33 beneath the cylinder may be carried in any suitable way as upon a pair of spring fingers 34 separately mounted upon standards 35, so that an even pressure throughout the length of the pressure roll may always be maintained upon the paper passed between the same and the stencil sheet.

Variations may be resorted to within the scope of the invention, and portions of the improvements may be used without others.

Having thus described my invention, I claim:

1. In a stenciling machine, the combination of a standard, a stud thereon, and a stencil cylinder having an interior hub whereby the cylinder is wholly supported on said stud for revolution; said cylinder open at one end and said hub joined only to the other end of the cylinder; sufficient space being left around the hub throughout its length to accommodate an inking implement introduced within the cylinder.

2. In a stenciling machine, the combination of a standard, a stud thereon, and a stencil cylinder wholly supported only at one end thereof on said stud for revolution; the other end of said cylinder being entirely open for the introduction of ink, and said cylinder constituting a hollow drum of sufficient capacity throughout its length to accommodate an inking implement introduced therein.

3. In a stenciling machine, the combination of a standard, a stud projecting therefrom, a stencil cylinder open at one end and having at only the other end means wholly supporting said cylinder upon said stud for revolution; the cylinder being mounted close to said standard, and both said stud and said supporting means projecting from the standard within the cylinder; the latter constituting a hollow drum of sufficient capacity throughout its length to accommodate an inking implement introduced therein.

4. In a stenciling machine, the combination with a standard and a stud projecting therefrom, of a stencil cylinder open at one end and provided at only the other end with a head which has an interiorly projecting hollow journal member fitting upon said stud, and means to prevent endwise displacement of the cylinder upon the stud; the cylinder constituting a hollow drum of sufficient capacity throughout its length to accommodate an inking implement introduced therein.

5. In a stenciling machine, the combination with a standard and a stud projecting therefrom, of a stencil cylinder open at one end and provided at the other end with a head which has an interiorly projecting hollow journal member fitting upon said stud, and means to prevent endwise displacement of the cylinder upon the stud; said head and said hollow journal member cast in one piece and the journal member being closed at its inner end and forming a dust proof cap over the stud.

6. In a stenciling machine, the combination with a cylinder formed of perforated sheet metal, of a head for said cylinder, a bar integral with said head and extending longitudinally of the cylinder to form a support for the ends of the curved sheet of perforated metal, said cylinder being entirely open at the end opposite said head, and a fixed device engaging said head, whereon said cylinder is wholly supported for revolution.

7. In a stenciling machine, the combination of a standard, a stud projecting therefrom, a stencil cylinder formed of a curved perforated metal sheet, a head for said cylinder, said head having an integral inwardly projecting hollow bearing fitting upon said stud, a bar integral with said head and extending along the cylinder to support the ends of the perforated sheet, and a web extending from said bar to said inwardly projecting bearing; the end of said cylinder opposite said head being open.

8. In a stenciling machine, the combination with a stencil cylinder open at one end, of a framework having a fixed stud, said cylinder having an interior bearing at only the other end thereof which may be slid upon said stud, and means to prevent the cylinder from slipping off the stud; said cylinder constituting a hollow drum of sufficient capacity throughout its length to accommodate an inking implement introduced therein.

9. In a stenciling machine, the combination with a stencil cylinder open at one end, of means at only the other end of said cylinder upon which the same is wholly supported for revolution, and a latch releasably detaining said cylinder upon its support; said cylinder constituting a hollow drum of sufficient capacity throughout its length to accommodate an inking implement introduced therein.

10. In a stenciling machine, the combination with a framework, of a stencil cylinder wholly supported at one of its ends upon said framework for revolution, and means releasably holding said cylinder upon said framework; said cylinder constituting a hollow drum of sufficient capacity throughout its length to accommodate an inking implement introduced therein, and being supported by means of only one of its ends upon said framework; the other end of said cylinder being open.

11. In a stenciling machine, the combination of a standard, a stud thereon, a stencil cylinder wholly supported on said stud for revolution, and a latch releasably holding said cylinder upon said stud; said cylinder constituting a hollow drum of sufficient capacity throughout its length to accommodate an inking implement introduced therein, and being supported by means of only one of its ends upon said stud; the other end of said cylinder being open.

12. In a stenciling machine, the combination of a standard, a bearing thereon, a stencil cylinder wholly supported only at one end upon said bearing for revolution; the end of said cylinder opposite said standard being entirely open and unobstructed for the introduction of ink, and means releasably holding said cylinder upon said bearing; said cylinder constituting a hollow drum of sufficient capacity throughout its length to accommodate an inking implement introduced therein.

13. In a stenciling machine, the combination of a framework having a stud, a stencil cylinder open at one end and having at the other end means wholly supporting said cylinder upon said stud for revolution; said stud extending far within the cylinder to afford a rigid support therefor, and a pivoted spring-pressed latch releasably holding said cylinder upon said stud; said cylinder having a flange to engage said latch when the cylinder is pressed upon the stud, and move said latch to permit the cylinder being forced to its proper position upon the stud.

14. In a stenciling machine, the combination with a standard and a stud projecting therefrom, of a stencil cylinder open at one end and provided at the other end with a head which has an interiorly projecting hub fitting upon said stud, and means to prevent endwise displacement of the cylinder upon the stud, including a latch mounted upon said standard, and a flange upon said hub engageable by said latch.

15. In a stenciling machine, the combination with a stencil cylinder hollow throughout and open and wholly unobstructed at one end, of a framework having a fixed stud, said cylinder having, at the other end thereof, a head provided with a hub extending sufficiently far into the interior of the cylinder to form a substantial and firm support therefor and constructed to be slid upon said stud, and a latch for releasably connecting said head to the framework.

16. In a stenciling machine, the combination with a hollow cylindrical ink screen open and wholly unobstructed at one end, of means wholly supporting said cylinder only by the other end thereof, for revolution.

17. In a stenciling machine, the combination with a hollow cylindrical ink screen open and wholly unobstructed at one end, of means wholly supporting said cylinder

by only the other end thereof, for revolution, and a pressure roller having independent means at each of its ends for yieldingly holding the roller against said cylinder.

18. In a stenciling machine, the combination with a framework, of a hollow cylindrical ink screen open and wholly unobstructed at one end, and releasable means wholly supporting said cylinder by only the other end thereof, for revolution.

19. In a stenciling machine, the combination of a standard, a stud projecting therefrom, a stencil cylinder formed of a curved perforated metal sheet, a head for said cylinder, said head having an integral inwardly projecting hollow bearing fitting upon said stud, and a bar integral with said head and extending along the cylinder to support the ends of the perforated sheet; the end of said cylinder opposite said head being open.

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