



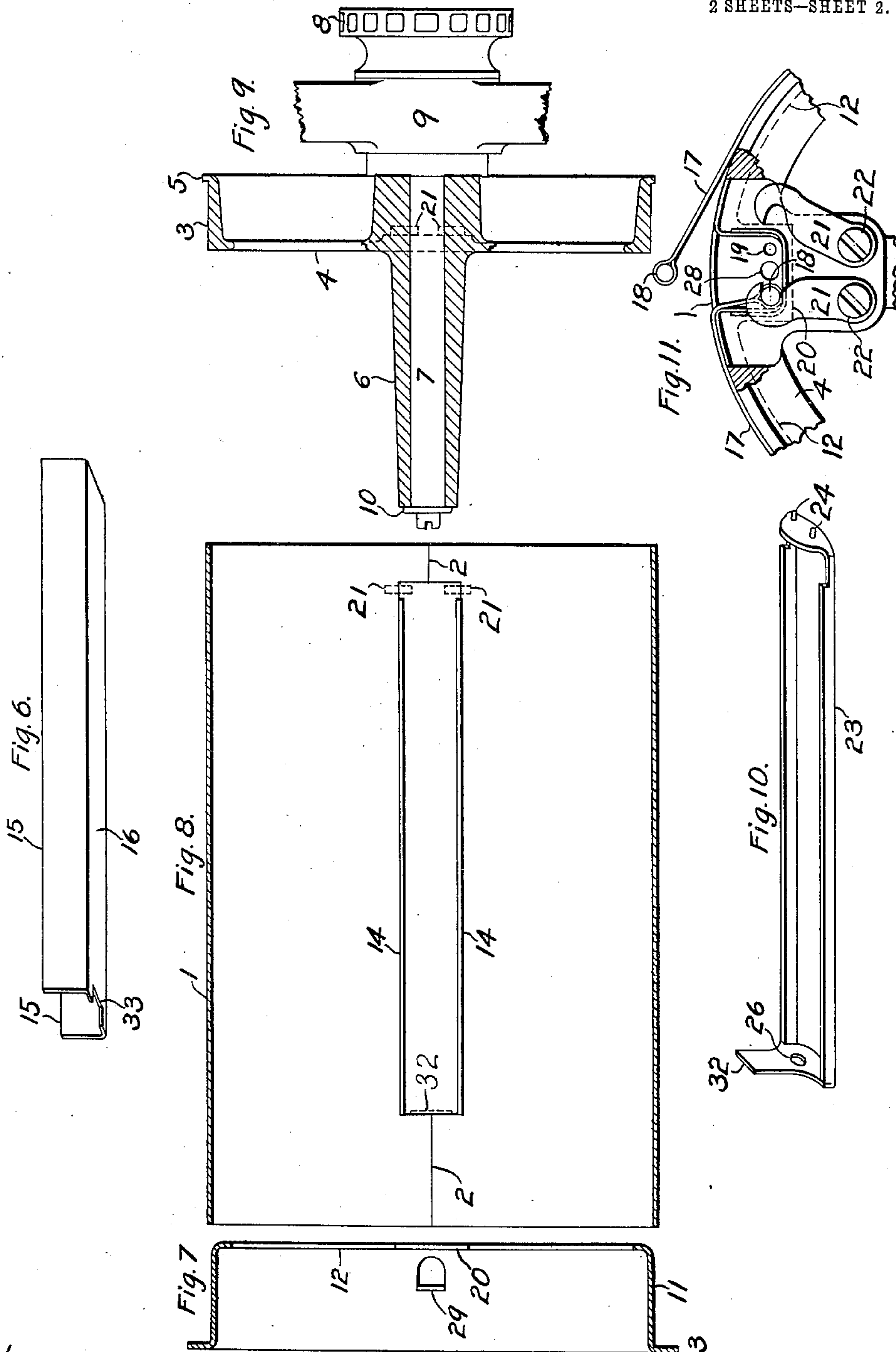
No. 891,766.

PATENTED JUNE 23, 1908.

B. P. FORTIN.  
STENCILING MACHINE.

APPLICATION FILED MAR. 27, 1908.

2 SHEETS—SHEET 2.



Witnesses.  
*Wm. J. Chipman*  
*John C. Seifert*

Inventor.  
*Benjamin P. Fortin*  
By *Robert Stickney*  
Attorney.



# UNITED STATES PATENT OFFICE.

BENJAMIN P. FORTIN, OF WOONSOCKET, RHODE ISLAND, ASSIGNOR TO UNDERWOOD TYPE-WRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

## STENCILING-MACHINE.

No. 891,766.

Specification of Letters Patent.

Patented June 23, 1908.

Application filed March 27, 1908. Serial No. 423,510.

*To whom it may concern:*

Be it known that I, BENJAMIN P. FORTIN, a citizen of the United States, residing in Woonsocket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Stenciling-Machines, of which the following is a specification.

This invention relates to stencil cylinders having foraminous bodies within which the ink is introduced, to be conveyed to an ink blanket wrapped around the cylinder and overlaid by a stencil sheet.

The principal objects of the invention are to simplify and improve the construction of the cylinder and its appurtenances, with a view to economy of manufacture, durability and utility.

According to the present invention, the body of the stencil cylinder or drum is formed from sheet metal suitably perforated, and it is fitted at one end upon the rim of a head having a form of a wheel, whereby the drum is supported; and at the other end a sheet metal reinforcing head in the form of a deep ring is fitted tightly within the cylinder and provided with an external flange to carry the usual adjustable stop arm or handle; the whole constituting a simple, rigid and inexpensive construction well adapted to the purpose.

In place of the usual cast hollow bar extending lengthwise of the cylinder, to receive the pad-holding rods, there is provided a trough-like structure struck up from sheet metal and receiving tongues or ledges bent down from the edges of the main cylinder, said tongues being soldered or otherwise secured to the side of the trough, thereby forming a depression in the surface of the cylinder, to receive said rods and also the bar to hold the ends of the stencil sheet. Improved means are also provided for releasably securing the stencil clamping bar and for facilitating the release of said bar.

In the accompanying drawings, Figure 1 is a perspective of a cylinder embodying the present improvements. Fig. 2 is a front elevation partly in section, to illustrate a part of the adjustable stop mechanism. Fig. 3 is a sectional side elevation of one end of the cylinder and a stop arm thereon. Fig. 4 shows sectional details of the stencil clamping bar. Fig. 5 is a longitudinal section of the upper part of the stencil cylinder:

Fig. 6 is a perspective view of the struck up sheet metal trough-like bar used in joining the depressed edges of the stencil to form a depression or recess in the periphery of the cylinder. Figs. 7, 8 and 9 are sectional longitudinal views of the cylinder and its heads. Fig. 10 is an inverted perspective view of the stencil clamping bar. Fig. 11 is a sectional detail to show the hooks which lock the pad-holding rods.

The stencil drum comprises a perforated cylindrical body 1 formed of sheet metal, whose edges are joined along the line 2, Fig. 8. At one end the cylinder fits tightly upon the periphery 3 of a head in the form of a wheel 4, whereby the drum is supported. This end of the cylinder abuts against a flange 5 formed upon said head flush with the cylinder. The head 4 is provided with a hub 6 extending into the drum and turning upon a stud 7, which is held by a nut 8 in a standard 9 of the framework; the hub being held on the stud by a cap 10. Said stud forms the sole support of the cylinder.

Inserted into the other end of the cylinder is a tightly fitted annular reinforcing head drawn up from sheet metal and in the form of a deep ring or tube 11. This tube may be soldered or otherwise secured within the cylinder. At its inner end it has an interior stiffening flange 12, and at its outer end an exterior stiffening flange 13, which abuts against the end of the cylinder 1.

To provide a longitudinal depression in the cylinder for receiving the pad holding rods etc., tongues or flanges 14 are bent downwardly or inwardly from the edges of the plate which forms the cylinder 1; and said tongues are caught within the sides 15 of a channel bar whose bottom is designated as 16 and constitutes the bottom of the depression of the cylinder. The channel bar is struck up from sheet metal and firmly clasps the tongues 14, to which it is soldered or otherwise secured; this making a light, stiff, inexpensive construction.

The ink pad 17, Fig. 11, is held by bars 18, which are inserted in holes 19 at one end of the cylinder depression, said holes formed in the flange 12 or in an inwardly projecting ear 20 formed upon said flange. Said bars 18 lie along the bottom of the depression in the cylinder, and at their other ends are caught by releasable hooks 21 mounted upon pivot screws 22 on the wheel 4.



The ends of the wax stencil sheet (not shown) are held in said depression by means of a clamping bar 23 fitting tightly between the ends of the pad 17, and having at one end projections 24 to fit in holes 25 in the wheel 4. At its other end the clamping bar is provided with a perforation 26 to receive a bolt 27 which works in a hole 28 in the ear 20. Said bolt extends through an ear 29 projecting inwardly from the head 11, and is provided with a finger piece 30 and a spring 31 which holds the bolt in place. Upon pulling out the bolt by means of the head 30, the stencil clamping bar 23 may be withdrawn; the same being provided with a finger-piece 32 projecting in through an aperture 33 formed in the depression, so that by lifting the said finger-piece, this end of the bar is thrown up, and it may then be withdrawn lengthwise to release the catches 24. The head 30 is provided with a pin 34 normally occupying a recess 35 in the ear 29. When the head 30 is pulled out to release the sheet clamp 23, the head may be turned around so that the pin 34 may ride upon the face of the ear 29, thereby holding the bolt released.

There is usually provided upon the framework a stop 36, to be engaged by a stop 37, which revolves with the cylinder 1. According to the present improvements, this stop 37 is mounted upon a sheet metal arm 38 having at its inner end claws 39 bent in to catch within the head 11, and having at its outer end a pair of struck up ears 40 to receive the inner end of a swiveled handle 41. The plate 38 coöperates with another sheet metal plate 42 to grip the flange 13, said plates being drawn towards each other by means of thumb screws 43. A ledge 44 is formed on the plate 42 to take a bearing on the plate 38; and the plates are also connected by a shoulder screw 45. An index 46 on the outer plate may coöperate with graduations 47 on the flange 13 to aid in setting the stop arm or plate 38. The stop 37 is of usual construction and mounted in a boss 48 suitably secured upon the plate 38.

Having thus described my invention, I claim:

50 1. A stencil-drum comprising a perforated plate curved to form a cylinder, the cylinder provided with heads and having a longitudinal channel or depression between said heads to receive clamping devices for the sheets wrapped around the cylinder, adjacent edges of the perforated plate being bent down to form the sides of said channel, and a channel-bar forming the bottom of the depression, and inclosing said sides and secured thereto.

60 2. A stencil-drum comprising a perforated cylinder of sheet metal attached at one end to a head which is revolubly mounted upon a device which constitutes the sole support of the drum, and a second head being attached to the other end of the cylinder also,

and having the form of a reinforcing tube of sheet metal inserted within and fitted tightly to the cylinder and formed at its inner end with an interior stiffening flange, said cylinder provided between said heads with a longitudinal channel or depression to receive pad-holding rods, said flange forming one end of said channel or depression and having holes or seats to receive the ends of said rods.

3. A stencil-drum comprising a perforated cylinder of sheet metal attached at one end to a head which is revolubly mounted upon a device which constitutes the sole support of the drum, and a second head being attached to the other end of the cylinder also, and having the form of a reinforcing tube of sheet metal inserted within and fitted tightly to the cylinder and formed at its inner end with an interior stiffening flange, said cylinder provided between said heads with a longitudinal channel or depression to receive pad-holding rods, said flange forming one end of said channel or depression and having holes or seats to receive the ends of said rods; and fastening devices mounted upon the first head and projecting into said channel at its other end, to secure the other ends of said rods.

4. A stencil-drum comprising a perforated cylinder of sheet metal attached at one end to a head which is revolubly mounted, and a second head being attached to the other end of the cylinder, and having the form of a reinforcing tube of sheet metal inserted within and fitted tightly to the cylinder and formed at its inner end with an interior stiffening flange, said cylinder provided between said heads with a longitudinal channel or depression, and said flange forming one end of said channel, and a detachable bar for securing the ends of the stencil sheet in said depression, said bar having a projection at one end to catch in a recess or seat formed in the first head of the drum, and having at the other end a tongue perforated to receive a spring-pressed bolt.

5. A stencil-drum comprising a perforated cylinder of sheet metal attached at one end to a head which is revolubly mounted, and a second head being attached to the other end of the cylinder, and having the form of a reinforcing tube of sheet metal inserted within and fitted tightly to the cylinder and formed at its inner end with an interior stiffening flange, said cylinder provided between said heads with a longitudinal channel or depression, and said flange forming one end of said channel, and a detachable bar for securing the ends of the stencil sheet in said depression, said bar having a projection at one end to catch in a recess or sheet formed in the first head of the drum, and having at the other end a tongue perforated to receive a spring-pressed bolt; said tongue projecting within the drum to form a finger-piece for



lifting the end of the bar from the depression or channel.

6. A stencil-drum comprising a perforated cylinder of sheet metal, a head attached to the end of the cylinder, and having the form of a reinforcing tube of sheet metal inserted within and fitted tightly to the cylinder and formed at its inner end with an interior stiffening flange, said cylinder provided with a longitudinal channel or depression to receive pad-holding rods, and said flange forming one end of said channel, a detachable bar for securing the ends of the stencil sheet in said depression, said bar having a projection at one end to catch in a recess or seat provided in the drum, and having at the other end a tongue perforated to receive a spring-pressed bolt, one end whereof is mounted in a perforation in said flange, and an ear projecting inwardly from said head to receive the other end of said bolt, the latter provided with a knob, and the knob provided with a pin which by turning said bolt may be caused to engage said ear to hold the bolt released.

7. A stencil-drum having a longitudinal depression or channel between its ends, in combination with a sheet-holding bar within said channel and having at one end means for detachably engaging the end of the drum, and provided at its other end with a tongue which projects within the drum to form a finger-piece for lifting the bar, and releasable means for retaining the end of the bar which carries said tongue.

8. A stencil-drum having a longitudinal depression or channel between its ends, in combination with a sheet-holding bar within said channel and having at one end means for detachably engaging the end of the drum, and provided at its other end with a tongue which projects within the drum to form a finger-piece for lifting the bar, and a spring-pressed bolt mounted upon the drum to engage the tongue-carrying end of said bar.

9. A stencil-drum having a longitudinal depression or channel between its ends, in combination with a sheet-holding bar

within said channel and having at one end means for detachably engaging the end of the drum, and provided at its other end with a tongue which projects within the drum to form a finger-piece for lifting the bar, and a spring-pressed bolt mounted upon the drum to engage the tongue-carrying end of said bar; said bolt being provided with means for mechanically detaining it in bar-releasing position.

10. A stencil-drum having a longitudinal depression or channel between its ends, in combination with a sheet-holding bar within said channel and having at one end means for detachably engaging the end of the drum, and provided at its other end with a tongue which projects within the drum to form a finger-piece for lifting the bar, releasable means for retaining the end of the bar which carries said tongue; pad-holding rods engaging seats in the same end of the channel at which said tongue is arranged, and hooks at the other end of the channel to engage the other ends of the rods.

11. The combination with a stencil drum mounted upon a framework and having an open end provided with an external flange, of a stop upon the framework, and a stop-arm adjustable around said flange and comprising a sheet-metal plate having claws to catch within the drum, a clamping plate to cooperate with the first plate to bind upon said flange, and thumb screws connecting said plates.

12. The combination with a stencil-drum mounted upon a framework and having an open end provided with an external flange, of a stop upon the framework, and a stop-arm adjustable around said flange and comprising a sheet-metal plate having claws to catch within the drum, a clamping plate to cooperate with the first plate to bind upon said flange, thumb screws connecting said plates, and ears struck up from the ends of said arm to carry a swiveled handle.

BENJAMIN P. FORTIN.

Witnesses:

S. T. SMITH, Jr.,  
EUGENE E. BASQUIN.