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DEVICE FOR INKING PRINTING PRESSES

Filed Dec. 23, 1929

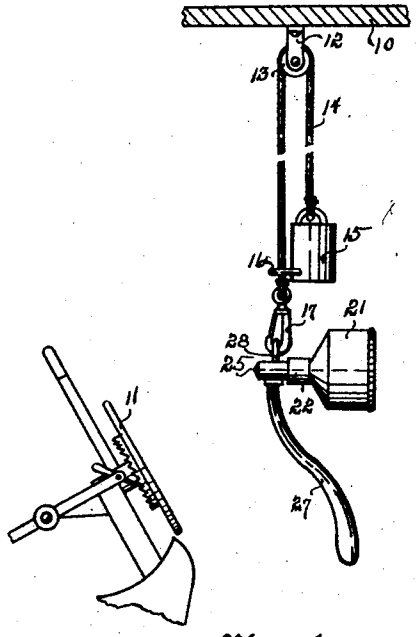


Fig. 1.

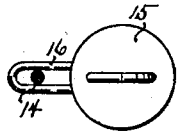


Fig. 3.

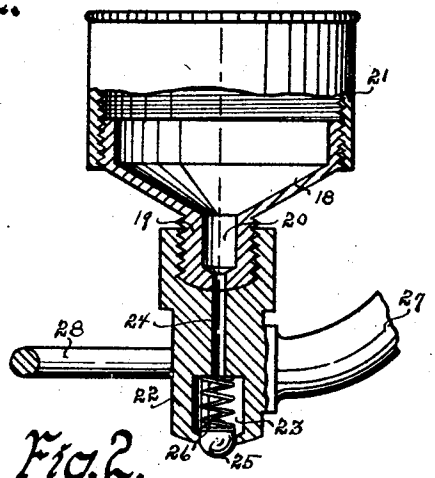


Fig. 2.

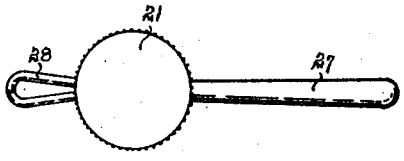


Fig. 4.

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UNITED STATES PATENT OFFICE

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DEVICE FOR INKING PRINTING PRESSES

Application filed December 23, 1929. Serial No. 415,932.

The principal object of our invention is to provide a device that will facilitate the manual inking of printing presses.

A further object of this invention is to provide a manually operated printing press inking device that is easy to operate and is out of the way when not being operated.

A still further object of this invention is to provide a printing press inking device that eliminates ink waste and the evaporating of the ink.

A still further object of our invention is to provide a manually operated printing press inking machine that does not discolor the hands of the operator.

A still further object of this invention is to provide a device to facilitate the manual inking of printing presses that is economical in manufacture and durable in use.

These and other objects will be apparent to those skilled in the art.

Our invention consists in the construction, arrangement, and combination of the various parts of the device, whereby, the objects contemplated are attained as hereinafter more fully set forth, pointed out in our claims and illustrated in the accompanying drawings, in which:

Fig. 1 is a side view of our invention suspended above a printing press disk and ready for use.

Fig. 2 is a side sectional view of the receptacle and feed portion of the invention and more fully illustrates its interior construction.

Fig. 3 is a top plan view of the counterbalancing weight used in this invention.

Fig. 4 is a top plan view of our invention illustrating the receptacle handle and eyelet portion.

The present method of inking printing presses is for a workman to use a paddle or the like with which he obtains the ink from an open receptacle and smears the same on the disk press with the paddle. This system is very objectionable in that much time and energy is lost in the procedure, the ink in the open receptacle rapidly deteriorates and evaporates and is often fouled by foreign matter falling into the receptacle thereby making the ink of poor quality and hampering the successful functioning of the printing press. Other objections to this system are that the receptacles containing the ink are often upset and lost and the operator usually experiences soiled hands and clothing in inking the press. We have overcome all of these objections as will be appreciated by those familiar with the art.

In the drawings we have used the numeral 10 to designate the ceiling or a beam above the printing press disk 11. Secured to the ceiling or beam is the bracket 12 rotatably supporting the wheel 13. The numeral 14 designates a flexible rope having secured to one of its ends a counter-balance weight 15.

The other end portion of the rope 14 extends through a loop 16 secured to the weight 15 and has secured onto its end a hook member 17 as shown in Fig. 1. It should here be noted that the inside area of the loop 16 is such that the hook end of the rope 14 cannot pass completely therethrough.

The bottom cup portion of the invention is designated by the numeral 18 and has its bottom sloping outwardly as shown in Fig. 2. Integrally formed on the bottom of the member 18 and near the center thereof is the threaded projection or nipple 19. The numeral 20 designates a bore in the projection 19 having one end communicating with the inside of the member 18 and its other end communicating with the outside atmosphere. Threaded onto the member 18 is the top cup member 21 inclosing the member 18 and forming therewith a reservoir in which is to be placed the ink to be used on the printing press.

To fill the receptacle portion of the invention with the ink desired to be used it is merely necessary to unscrew the member 21 from the member 18 and fill the same with the ink material which is of a semi-liquid consistency and replace the member 21 on the member 18 by holding the member 18 stationary and rotating the member 21. The numeral 22 designates the base member of the invention having the projection 19 threaded into its upper end portion as shown

in Fig. 2. Formed in the other or lower end of the member 22 is a cavity 23. The numeral 24 designates a passageway in the base member 22 having one end communicating with the passageway 20 when the projection 19 is threaded into the base member and its other end communicating with the inside of the cavity 23.

We have used the numeral 25 to designate a metallic ball having the greater of its portion inside the cavity 23 and a smaller portion thereof extending through an opening in the bottom of the base member 22; said opening being of such a dimension as to prevent the ball 25 from passing completely through the opening. The numeral 26 designates a coil spring having one end engaging the bottom of the cavity 23 and its other end engaging the ball 25 for yieldingly holding the ball 25 in a protruding position through the opening in the end of the base member 22. Secured by suitable means to the base member 22 is the handle member 27. Secured to the base member 22 and diametrically opposite from the side that the handle member 27 is secured thereon is an eye member 28. When the invention is desired to be placed in an operative condition this eye member 28 should be attached onto the hook member 17. To use the invention it is merely necessary for the operator to reach upwardly and grasp the invention by the handle member 27 and pull the same downwardly until the lower end of the member 19 is pressed onto the face of the disk 11 and give the cup member 21 a turn to the right. Due to the fact that the cup member 21 is threaded onto the member 18 by rotating it to the right its top will be brought closer to the bottom of the member 18 thereby decreasing the capacity of the inclosed receptacle and forcing the ink therein out of the bore 20 and into the passageway 24. From the passageway 24 the ink will pass into the cavity 23 and as the ball 25 is forced into the cavity 23 against the spring 26 by coming in contact with the disk 11 the ink will pass from the cavity 23 through the opening in the lower end of the base member 22 and onto the printing press.

The moment that the lower end of the base member 22 is not pressed against the printing press disk, the spring 26 will return the ball 25 to a position shown in Fig. 2, thereby closing the opening in the lower end of the base member 22 and preventing any further amount of ink to pass through the device. In other words the ball 25 acts as a valve for closing the opening in the bottom of the base member 22 when the invention is not being used, thereby preventing any undesirable leakage of the ink from the invention. The amount of ink placed on the face of the printing press disk will be relative to the number of turns given the cup member 21 and the length of time the ball 25 is depressed from the opening in the bottom of the base member 22. When the desired amount of ink is placed upon the disk 11 the handle member 27 should be manually elevated until the hook end of the rope 14 limits further movement by engagement with the loop 16. In this position the device will be completely out of the way from the operation of the printing machine until it is desired to be used again. By the loop 16 limiting the upward movement of the receptacle portion of the invention the handle member 27 will always be at uniform height for the operator to grasp and this height may be adjustably obtained by lengthening or shortening the rope 14. By rounding the lower end of the member 22 there is no danger of scratching or otherwise marring the face of the disk 11 by the projection coming in contact therewith.

If it is desired a plurality of receptacle portions of the invention may be used each containing a different color or type of ink and to change from the use of one ink to the other, all that is necessary is to detach one of the receptacle portions from the base 22 and substitute another receptacle containing the desired ink.

By such a construction it will readily be appreciated that printing presses may easily and quickly be serviced with desirable ink and that there will be little loss of ink from waste or evaporation. Also it will be noted that the operator will not soil hands and clothing during the inking process when our invention is employed.

Some changes may be made in the construction and arrangement of our improved combination device for inking printing presses without departing from the real spirit and purpose of our invention, and it is our intention to cover by our claims any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

We claim:

1. In a device of the class described, a receptacle designed to hold ink to be used on a printing press a base member on said receptacle, a rounded end on said base member, a passageway in said base member having one end communicating with the inside of said receptacle and its other end communicating with said rounded end, and a means for forcing desired amounts of ink from said receptacle through said passageway to said press.

2. In a device of the class described, a receptacle designed to contain ink to be used on a printing press, a passageway in the body of said receptacle through which the said ink is to pass from said receptacle to said press, a wheel designed to be rotatably mounted at a point above said press, a rope

embracing said wheel, a weight secured at one end of said rope, and a means for detachably securing the receptacle to the other end of said rope.

3. In a device of the class described, a wheel designed to be rotatably mounted at a point above a printing press, a rope embracing said wheel, a weight secured to one end of said rope, a hook member secured to the other end of said rope, a loop member secured to said weight and slidably embracing the said rope at a point above said hook member, a receptacle designed to contain ink to be used on said press, an outlet port in said receptacle, a means for forcing ink from said receptacle through said port to said press when desired, and an eye secured to said receptacle and capable of engaging said hook member.

4. In a device of the class described, a wheel designed to be rotatably mounted at a point above a printing press disk, a rope embracing said wheel, a weight secured to one end of said rope, a hook member secured to the other end of said rope, a loop member secured to said weight; slidably embracing the said rope at a point above said hook portion and having an inside diameter through which the hook end portion of said rope cannot pass, a receptacle designed to contain ink to be used on said disk, an outlet port in said receptacle, a means for forcing ink from said receptacle through said port to said disk when desired, and an eye secured to said receptacle and capable of engaging said hook member.

5. In a device of the class described, a base member, a receptacle detachably secured to said base member, a depressible valve in the other end of said base member having its outer depressible end rounded to eliminate the possibility of scratching of members in which it might come in contact with a passageway in said base member having one end communicating with the inside of said receptacle and its other end communicating with the said depressible valve, and a means for causing any fluid placed in said receptacle to pass from the same through said passageway and out of said base member when said valve is depressed.

6. In a device of the class described, a receptacle designed to hold ink to be used on a printing press, a base member on said receptacle, a rounded end on said base member, a passageway in said base member having one end communicating with the inside of said receptacle and its other end communicating through said rounded end, a depressible valve in said passageway and extending past said rounded end; said depressible valve having its forward end portion rounded to eliminate the scratching or marring of the printing press it contacts for inking purposes, and a means for forcing desired amounts of ink from said receptacle through said passageway to said printing press when said valve is depressed by engagement with said press.

7. In a device of the class described, a receptacle designed to hold ink to be used on a printing press, a base member on said receptacle, a rounded end on said base member, a passageway in said base member having one end communicating with the inside of said receptacle and its other end communicating through said rounded end, a depressible valve in said passageway and extending past said rounded end; said depressible valve having its forward end portion rounded to eliminate the scratching or marring of the printing press it contacts for inking purposes, a means for forcing desired amounts of ink from said receptacle through said passageway to said printing press when said valve is depressed by engagement with said press, and a handle member secured to said base member to facilitate the manual operation of the device.

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