

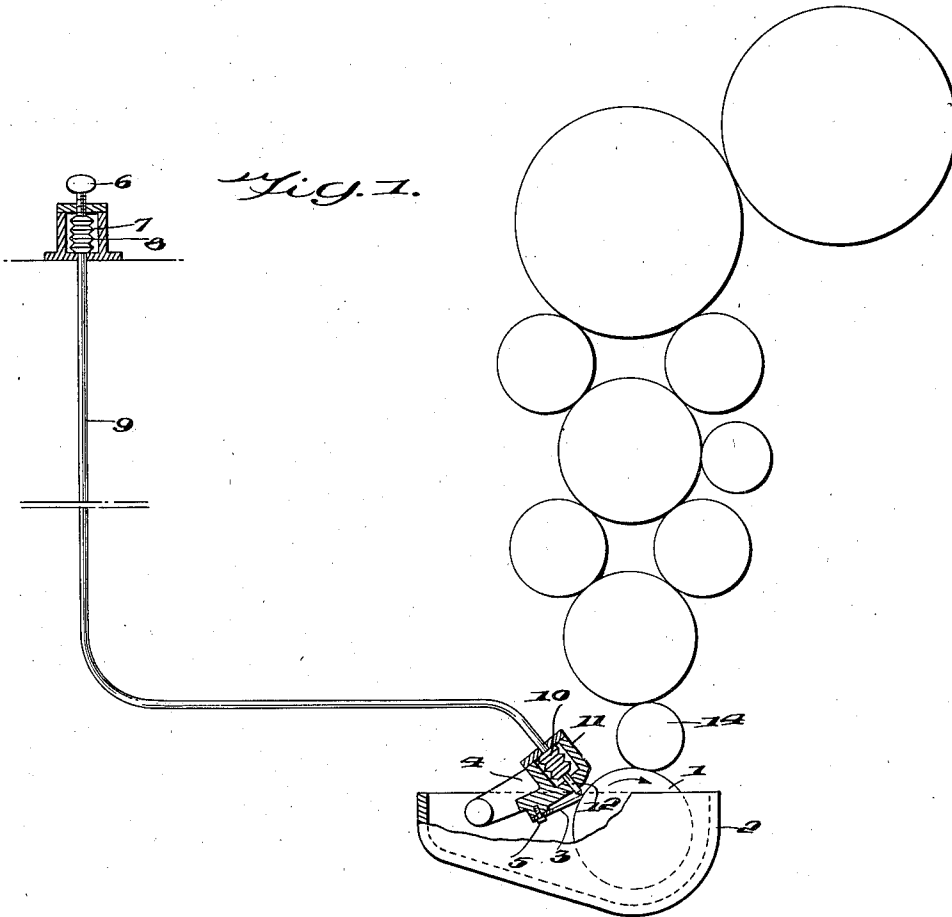
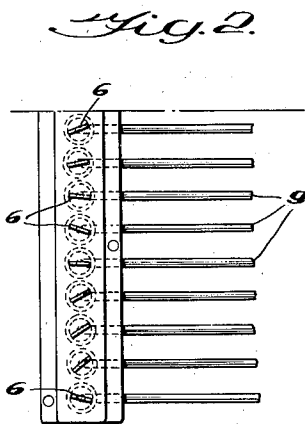
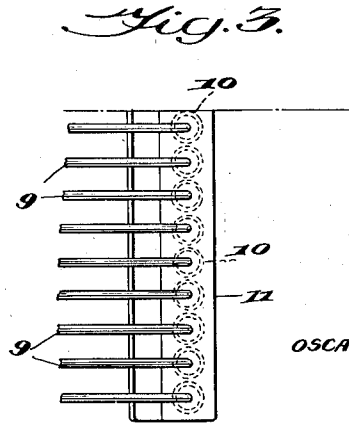
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BLADE ADJUSTING MECHANISM FOR PRINTING PRESSES

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BLADE ADJUSTING MECHANISM FOR
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This invention relates to adjusting means for regulating and controlling the amount of ink being fed to ink distributing rollers of a printing press and has particular reference to the control of the adjusting means from a point remote from the press and by means of adjusting screws and tubes containing air, or other gas or liquid.

The present invention is applicable to apparatus wherein a printing or other distributing roll is utilized in connection with a blade for the regulation of the amount of material delivered from the surface of the distributing roll to the next roll of the inking mechanism and thus deliver a uniform film of ink thereto.

Heretofore in fountain blades of this type they have been adjusted and manipulated to regulate the ink flow from the ink roller by means of thumb screws or adjusting mechanism spaced along the length of the blade in proximity to the blade itself. Such devices are of necessity usually short and due to their proximity to the ink fountain must be located in a position about the press or distributing rollers where it is difficult to handle or manipulate with any degree of safety or ease.

The primary object of the present invention is to provide means whereby the adjusting keys are brought to a convenient position about or beyond the press and to a position reasonably remote from the press and yet retain full ability to adjust the blade from such remote position.

With the foregoing and other objects in view the invention consists of a novel combination, arrangement and construction as will hereinafter appear, but it is to be understood that modifications and variations of the invention may be resorted to without departing from the spirit of the invention or the scope thereof as set forth in the appended claims.

In the drawing wherein a preferred form of the invention is illustrated, like characters of reference indicate like parts throughout the several views.

Fig. 1 is a view partly in section with the present invention shown in its relative position to the fountain and printing couple;

Fig. 2 is a view in plan of the arrangement of the adjusting screws shown in section in Fig. 1; and

Fig. 3 is a plan view of the fountain back, shown in section in Fig. 1.

Referring more particularly to Fig. 1, the fountain roll 1 is mounted in the fountain or ink bowl 2 and is partly submerged in the ink therein and rotates in the direction of the arrow. The

blade 3 is secured along its lower edge to the fountain back 4 by means of bolts or screws 5 and due to the flexibility of the blade its upper edge where it contacts with the fountain roll 1, may be adjusted as desired.

The passage of ink from the fountain bowl is regulated by the space between the upper edge of the fountain blade 3 and the fountain roll 1 and this space may be varied at will along any portion of the length of the blade by the manipulation of the adjusting keys 6, any desired number of which may be provided and which are spaced apart at the desired distance for regulating the different points at which the blade 3 is to be adjusted. The housing or casing 7 which has mounted on a portion thereof the adjusting keys 6 contains a series of bellows or sylphons 8, one for each of the adjusting keys. A series of tubes or pipes or conduits 9 form a communication between the bellows 8 and a series of bellows 10 mounted in a casing or box 11 forming part of the fountain back 4. Slidably mounted in the base of the box 11 are a series of pins 12, one for each of the bellows 10. The lower ends of these pins contact with the upper free edge of the blade 3 along its length, spaced the desired distance apart.

It will thus be seen that the space between the free edge of the blade 3 and the fountain roll may be varied at will along any portion of the blade by the proper adjustment of the keys 6. When a key 6 is turned in the proper direction it will compress the bellows 7 and force the air, gas or other liquid in the tube 9 to expand the bellows 11 and thus force the pin 12 against the blade and that portion of the blade adjusted according to the extent to which the key 6 is adjusted.

Such action of the key will necessarily cause an expansion of the bellows 11 and cause the pin 12 of that particular bellows 11 to push against and flex the free portion of the blade 3 reducing the space between the blade and the roll 1, thereby reducing the amount of ink passing the blade, and from the roll 1 to the distributing roll 14.

To increase the ink passage it will be obvious that a reverse movement of the key or keys would permit the fountain blade 3 to flex in the direction of its normal position, thereby increasing the space between the blade and the roll and permitting of the passage of more ink.

The invention is not to be limited or confined to the particular form of distributing rolls or press shown diagrammatically but is applicable

to any type of presses and arrangement of adjusting keys.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a printing press, in combination, a distributing roll, a fountain bowl, a fountain roll mounted therein, a fountain back, a casing carried by the fountain back, a flexible blade secured thereon adapted to contact with the fountain roll, of a bellows arranged in said casing and a pin actuated by said bellows for contacting the blade, a housing located at a point remote from the press, a bellows therein, a conduit connecting the bellows in the casing and in the housing, and means for compressing the housing bellows and forcing the air therein and in the conduit into the casing bellows and expanding same to force the pin against the blade and thereby adjust the space between the longitudinal free edge of the blade and the fountain roll.

2. In a printing press, in combination, a distributing roll, a fountain bowl, a fountain roll mounted therein, a fountain back, a casing carried by the fountain back, a flexible blade secured thereon adapted to contact with the fountain roll, a bellows arranged in said casing and a pin slidably mounted in the casing in advance of and contacting the free end of the bellows actuated by said bellows for contacting the blade, a housing, a bellows therein, a conduit connecting the bellows in the housing and in the casing, an adjusting screw mounted in said casing and contacting the bellows therein whereby when the screw is turned the bellows is compressed and the air in the conduit caused to expand the bellows in the housing and the distance of the longitudinal free edge of the blade from the fountain roll thereby regulated.

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