

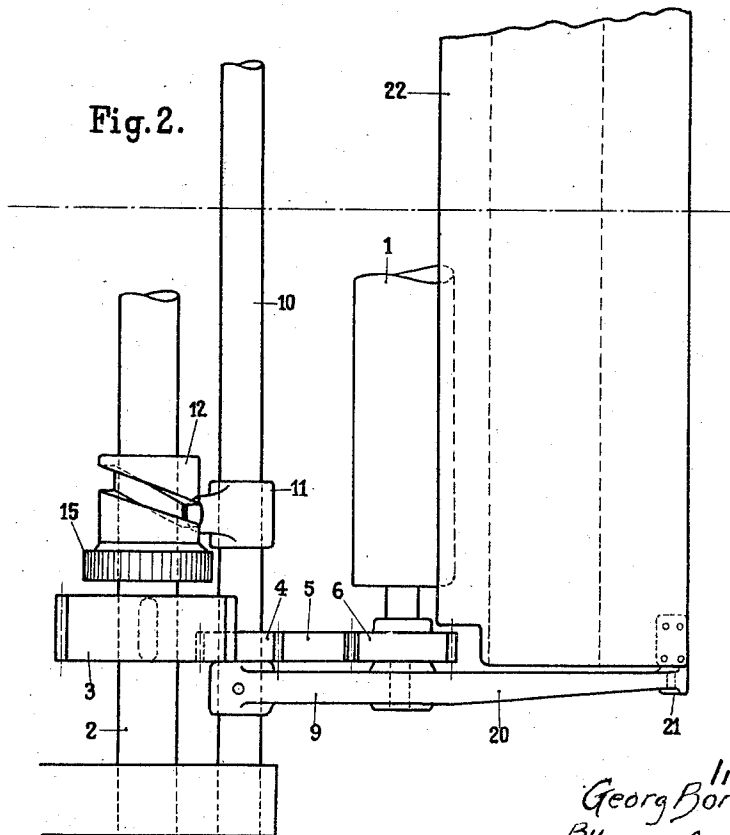
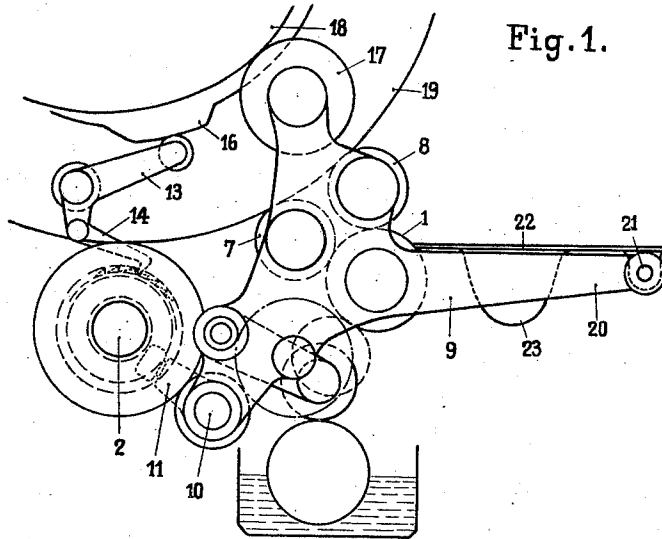
April 28, 1925.

1,535,567

G. BORNSCHEIN

WETTING DEVICE FOR ROTARY RUBBER PRINTING MACHINES

Filed July 14, 1922



Witnesses
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UNITED STATES PATENT OFFICE.

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WETTING DEVICE FOR ROTARY RUBBER-PRINTING MACHINES.

Application filed July 14, 1922. Serial No. 575,003.

To all whom it may concern:

Be it known that I, GEORG BORNSCHEIN, a citizen of Germany, residing at Bautzen, Germany, 16 Moltkestrasse, have invented certain new and useful Improvements in Wetting Devices for Rotary Rubber-Printing Machines, of which the following is a specification.

This invention relates to a wetting device for rotary rubber printing machines. The wetting devices of known type have the inconvenience that, if the machines have been printing for some time, the wetting cylinders take up ink, whereby the so-called toning streaks are produced upon the zinc plate. It has been proposed to avoid this inconvenience by lateral displacement of brass- or intermediate-cylinder. The inconvenience was however not completely done away with by this measure as the ink which had been taken up by the wetting cylinders was smeared over the wetting cylinder by the brass cylinder. The result was that the toning streaks upon the zinc plate became larger although they were much lighter. A further inconvenience resulting from the larger ink streaks upon the rollers is that the wetting cylinders can absorb little water.

According to the invention the wetting cylinders, eventually together with the intermediate cylinder or the entire wetting mechanism are laterally displaced during the printing operation. The displacement takes place preferably after every revolution of the form cylinder. With such an arrangement freshly wetted felt parts of the wetting cylinders are always brought in contact with the ink upon the zinc plate. It is further advisable to provide an ink doctor upon the intermediate cylinder which is designed to remove immediately any ink which should collect upon the intermediate cylinder even if only in quite small quantity.

A form of construction of the device improved according to this invention is shown by way of example on the accompanying drawing, wherein:—

Fig. 1 is a side elevation of the entire wetting device and of part of the form cylinder.

Fig. 2 shows in plan view half of the wetting device.

On the drawing all less essential parts of the wetting mechanism have been omitted

to facilitate the comprehension of the illustration.

The brass- or intermediate cylinder 1 is driven in the well known manner from shaft 2 by the intermediary of the gear wheels 3, 4, 5 and 6. The wetting cylinders 7 and 8 are driven from the brass cylinder 1 by friction. All the cylinders are mounted in the cheeks 9 keyed upon the shaft 10 and participate in all the movements of this shaft. A lever 11 which is further keyed upon shaft 10 engages with the groove of the grooved drum 12 loosely mounted upon shaft 2 and driven from cam 16 of the form cylinder through the intermediary of angle levers 13 and pawl 14 engaging with ratchet wheel 15. This ratchet wheel 15 is rigidly connected with the grooved drum 12. At each revolution the angle lever 13 is acted upon by cam 16 so that by means of pawl 14 the ratchet wheel 15 is rotated one tooth. The part rotation of the ratchet wheel 15 causes a rotation of the grooved drum 12 and consequently the shifting of the lever 11 engaging with the groove of the drum 12 so that shaft 10 and the cheeks 9 which support the wetting device are shifted also.

A roller 17 rolling upon the cam disk 18 serves for pushing the wetting device periodically away from the form cylinder 19 against which this wetting device is normally pressed by the action of a spring or of a counter weight.

The arms 20 of cheeks 9 carry the ink doctor 22 loaded by weight 23 and adapted to pivot around the axle 21. For the weight 23 a spring could be substituted. The doctor 22 is, by the action of the weight, or spring, maintained in contact with the intermediate- or brass-cylinder 1 so that it removes from this cylinder any ink which should have been transferred to the same.

I claim:—

1. An improved wetting device for rotary printing machines comprising in combination with the wetting cylinders the intermediate- or brass cylinder and the means supporting said parts, means for displacing the wetting cylinders in axial direction during the printing operation.

2. An improved wetting device for rotary printing machines comprising in combination with the wetting cylinders the intermediate- or brass cylinder and the means supporting said parts, means for displacing

the wetting cylinders together with the intermediate cylinder in axial direction during the printing operation.

3. An improved wetting device for rotary
5 printing machines comprising in combination with the wetting cylinders the intermediate- or brass cylinder and the means supporting said parts, means for displacing the wetting cylinders together with the intermediate cylinder and with the frame
10 work in axial direction during the printing operation.

4. An improved wetting device for rotary printing machines comprising in combina-

tion with the wetting cylinders the intermediate- or brass cylinder and the means supporting said parts, means for displacing the wetting cylinders in lateral direction during the printing operation and an ink doctor arranged upon the intermediate- or
15 brass cylinder. 20

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

GEORG BORNSCHEIN.

Witnesses:

SOHNE,

ARTHUR BERGER.