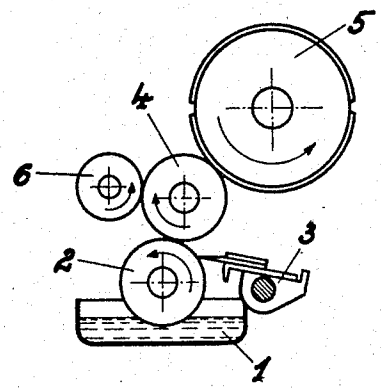
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INKING APPARATUS FOR ANILINE COLOR PRINTING MACHINES

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INKING APPARATUS FOR ANILINE COLOR PRINTING MACHINES

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1 Claim. (Cl. 101—350)

The inking apparatus for aniline color printing machines comprises as a rule a dipping roller which co-operates with a roller squeegee. The dipping roller may at the same time operate as an inking roller, or a separate inking roller may be provided.

Apparatus of this description have the disadvantage that the quantity of ink deposited upon the form varies with the speed of the machine since it depends on the function of the roller squeegee. The roller squeegee consequently has to be adjusted anew at every change of speed to ensure the delivery of the required proper amount of ink in each case. At the very high speed of modern quick running machines the roller squeegee can no longer satisfactorily squeeze off the surplus ink on the dipping roller.

According to the invention these disadvantages are avoided by suitably altering the surface of the dipping roller, for instance by etching into it an intaglio printing screen and provide a so-called doctor for raking off the surplus ink. An inking transfer roller then lifts the ink from out of the depressions of the dipping roller surface and transfers it to the plate cylinder. In addition the inking roller is preferably furnished with a separate roller squeegee, for flattening down the particles of ink lifted from out of the individual cavities of the dipping roller surface, and so produces an evenly thin film of ink conducive to the finest and most exact inking of the plate cylinder. Instead of charging the roller by the roller dipping into the ink duct containing the aniline printing ink, that is by a dipping process, an ink pump, as is usual in rotary photogravure machines, may be used.

The drawing shows schematically a preferred embodiment of the invention.

The highly fluid aniline printing ink contained in the ink duct 1 adheres to the dipping roller 2 into the surface of which an intaglio screen is etched. A doctor 3 of any suitable character removes the surplus ink therefrom. As the depth of the cavities is everywhere exactly alike, an exact limitation of the thickness of the film of ink results. The screened dipping roller transfers the ink to a rubber roller 4 and before this retransfers the ink to the plate cylinder 5, the ink is further evened out by a roller squeegee 6. In this manner an extraordinarily thin and perfectly even film of ink may be obtained on the inking roller for the finest and most exact inking of the plate cylinder.

What is claimed is:

In an inking apparatus for aniline color printing machines, in combination, an ink container, a roller dipping thereinto and having an intaglio surface of even depth etched thereon, a doctor for scraping surplus ink from the dipping roller, a rubber roller operable in contact with said dipping roller and adapted to receive the ink from the dipping roller at a location following said doctor, a printing member operable in contact with said rubber roller, and a smooth surfaced squeegee roll cooperating with said rubber roller for smoothing the ink supplied to the rubber roller before the ink is transferred to the printing member.

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