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PRINTER'S INK

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1 Claim. (Cl. 134—35)

To make it possible to print with amalgamated printing blocks without the necessity of regenerating the ink-repellent amalgam portions by a separate procedure during the printing of larger editions, it has been proposed to incorporate in the printing ink pure, metallic mercury designed to separate from the ink during the printing and to collect on the amalgamated portions of the printing block, in undergoing at these portions an amalgam combination with the metal of the printing block. Experience has shown that this process is not perfect because the amalgams which have formed on the surface of the printing block, especially if it consists of copper or of cuprous metals, were of soft consistence and therefore squeezed off the surface of the printing block in a very short time. The pure metallic mercury incorporated in the printing ink has the tendency to separate from the ink in the course of time to collect as a compact mass on the bottom of the ink trough.

The inventor has already invented a process for producing hard amalgam layers on printing blocks by means of which perfect printing is possible, this process consisting in adding, for the formation of the amalgam, another non-cuprous metal, such as tin, silver, cadmium or the like. When printing larger editions a certain wearing of the hard amalgam layer has, however, been observed so that regenerating of the amalgam layer was necessary. To avoid a separate regenerating process regenerating agents in finely distributed state are incorporated, according to the invention, in the printing ink, however, not in the form of pure, metallic mercury, but in the form of previously prepared soft amalgam consisting of mercury and of one or several other metals. It has been found that such an amalgam, if sufficiently admixed with the ink, separates during the printing in small quantities upon the printing block and regenerates the areas which had been previously amalgamated. The addition of amalgam to the printing ink differs from the addition of metallic mercury in that the amalgam does not automatically separate from the ink and collect on the bottom of the ink trough, but remains finely distributed in the ink.

In order that the regenerated amalgam layer of the printing block preserves the property of sufficient hardness, the amalgam incorporated in the ink must contain a metal which, if it has separated in finely distributed state on the printing block, allows of hardening of the amalgam in the air. Suitable metals are for instance silver, tin, cadmium or the like.

I claim:

A printer's ink for printing by means of a printing plate which has amalgamated ink-repellent surfaces, said ink comprising a printer's ink with a soft amalgam of mercury and silver, said amalgam being in an amount to effect regeneration of the amalgamated ink-repellent surfaces.

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