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METHOD OF PREVENTING OFFSET IN PRINTING.

No Drawing.

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To all whom it may concern:

Be it known that I, ALLEN L. GRAMMER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Method of Preventing Offset in Printing, set forth in the annexed specification.

It is well known that in printing sheets have to be and are piled before the ink is dry and this tends to produce what is known as offset. The most common way of preventing offset is to use slip sheets.

The principal object of the present invention is to prevent offset and to that end this invention, generally stated, comprises the method which consists in fusing paraffine wax or like material and then spraying the fused paraffine wax with air or the like to comminute it, collecting the particles of sprayed wax on the newly printed surface of sheets before they are piled, permitting the particles of wax solidified by cooling to space the sheets when piled and until dry and, if desired, distributing the particles of wax on the face of the dry sheets by buffing to gloss them.

Paraffine is an example of a material which fuses easily and which can be readily sprayed in the form of very fine particles upon the freshly printed surface of the sheets and it does not in any way detract from the black or color of the ink and in fact it is practically invisible. Again paraffine is an example of a wax or like material which solidifies quickly when sprayed with air or the like so that as a practical matter very fine particles of solid paraffine can be collected upon the freshly printed surface with great ease, and these fine particles serve to space the sheets when they are piled sufficiently to prevent the ink from being disturbed so that offset is avoided. Furthermore even if the particles of paraffine or like wax remain upon the sheets they do not detract from the appearance of the print, and these particles may be brushed off or removed or they may, by buffing, be used to, as it were burnish the printed surface enhancing its appearance.

To practice the invention paraffine may be made fluid by heat and sprayed by air which breaks it up into very fine particles, and these particles quickly solidify by cooling and are gathered upon or permitted to fall on the freshly printed surface of the sheet.

The particles may solidify whilst falling upon the sheet, or even after they have gathered on the sheet, the principal point being that paraffine and like wax can be easily sprayed while fluid by heat and by means of air and will quickly solidify so that it can be gathered upon the freshly printed sheet, there being no volatile solvent required, which solvent might and probably would be likely to contaminate the atmosphere, and the particles of paraffine or like wax being white, very small and somewhat transparent are substantially invisible on the printed sheet and do not interfere with the ink or color, but they do serve to separate the sheets while drying and even can be employed to add a gloss to the sheet. Furthermore since paraffine is made fluid by heat it is a simple matter to prevent it from clogging the devices used for spraying by the simple expedient of heating those devices.

It will be obvious to those skilled in the art that the invention is not limited to paraffine but includes equivalents for that material.

I claim:

1. In the art of printing the method of preventing offset which consists in collecting solid particles on the newly printed surfaces of the sheets by spraying them with a substance fluid by heat and solid at ordinary shop temperatures, and permitting the particles so collected to protect the newly printed surfaces when the sheets are piled and while the printed surfaces are drying, substantially as described.

2. In the art of printing the improvement in the method of preventing offset which consists in gathering particles of wax on the newly printed surfaces of the sheets by spraying them with fused wax and air, substantially as described.

3. In the art of printing the improvement in the method of preventing offset which consists in gathering particles of wax on the newly printed surfaces of the sheets by spraying them with fused wax.

4. In the art of printing the improved step which consists in gathering particles of paraffine on the newly printed surfaces of the sheets by fusing paraffine and spraying it with air onto such surfaces.

5. In the art of printing the improved step which consists in gathering particles of paraffine on the newly printed surfaces of

the sheets by fusing paraffine and spraying it onto such surfaces.

6. The method of preventing offset which consists in fusing paraffine wax by heat, spraying the fused paraffine wax with air to comminute it, collecting the particles of sprayed wax on the newly printed surface of sheets before they are piled, and permitting the particles of paraffine wax solidified by cooling to space the sheets when piled and until dry, substantially as described.

7. The method of preventing offset which consists in fusing paraffine wax by heat, spraying the fused paraffine wax with air

to comminute it, collecting the particles of 15
sprayed wax on the newly printed surface of sheets before they are piled, permitting the particles of paraffine wax solidified by cooling to space the sheets when piled and until dry, and glossing the surface of the 20
dried sheets by rubbing the particles of paraffine, substantially as described.

8. For the prevention of offset the improvement which consists in depositing solid particles on newly printed surfaces by spray- 25
ing them with a fused material which solidifies at ordinary shop temperature.

ALLEN L. GRAMMER.