

UNITED STATES PATENT OFFICE.

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COMPOSITION FOR PREVENTING SMUT OF PRINTING-INK.

1,316,531.

Specification of Letters Patent. Patented Sept. 16, 1919.

No Drawing.

Application filed October 28, 1918. Serial No. 260,029.

To all whom it may concern:

Be it known that I, PATRICK S. BYRNE, a citizen of the United States, and a resident of the city of New York, borough of Brook-
lyn, in the county of Kings and State of New York, have invented a new and Improved Composition for Preventing Smut of Printing-Ink, of which the following is a full, clear, and exact description.

The invention relates to a mixture which when added to printing ink will prevent what is termed in the printing industry "offset or smut." It will also prevent the printed sheets from sticking together.

Offset or smut is caused by the printing ink not setting or drying fast enough on the paper during the operation of printing and in consequence the printed side of the sheet when coming in contact with the clean unprinted side rubs or smuts, thus defacing the clear effect of the printing and also injuring the unprinted side of the sheet. To prevent this it was necessary to interleave each printed sheet as it left the press. This necessitated an extra expense in material and also in time of printing.

An object of my invention is to dispense with the delay in printing and the interleaving by introducing a mixture into the printing ink which will cause the same to set rapidly and thereby prevent offset or smut.

Another object of the invention is to provide a composition which can be used with any kind of printing ink of any color.

The mixture is formed of tallow, preferably mutton tallow; varnish, which is preferably fluid, that is, not too thick; starch, preferably cornstarch; paraffin oil; and oil of citronella. Although the mixture can be made as good with any tallow and with any starch, better results are obtained with mutton tallow and with cornstarch.

The ingredients are used in substantially the following proportions by weight:

Tallow	7	lbs.	54.37%
Varnish	2.75	lbs.	21.36%
Starch	2	lbs.	15.53%
Paraffin oil	1	lb.	7.77%
Oil of citronella	2	oz.	.97%

These ingredients are thoroughly mixed 50 and ground together by the aid of a roller mill, used in preparing paints or inks.

This mixture when added to ink eliminates the offsetting or smutting of the printing ink. The quantity to be added to the ink may vary according to the fluidity and character of the printing ink used. With some inks the quantity to be added reaches as high as one ounce per pound. Experiments performed with the mixture have shown that the quantity of varnish, starch, tallow, and oil may be varied without materially impairing the efficiency of the mixture; and although I have given the relative quantities of the ingredients which produce the best mixture, I do not wish to be limited to the exact proportions given. The oil of citronella is included merely as a deodorant and any other suitable deodorant may be substituted therefor, or it may be omitted entirely, as the composition without a deodorant is just as effective to secure the desired result.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A composition for preventing smut of printing ink, comprising tallow, varnish, starch, and paraffin oil, in proportions substantially as specified.

2. A composition for preventing smut of printing ink, comprising mutton tallow, varnish, starch, and paraffin oil, in proportions substantially as specified.

3. A composition for preventing smut of printing ink, comprising tallow, varnish, cornstarch, and paraffin oil, in proportions substantially as specified.

4. A composition for preventing smut of printing ink, comprising mutton tallow, varnish, cornstarch, and paraffin oil, in proportions substantially as specified.

5. A composition for preventing smut of printing ink, comprising tallow, varnish, starch, paraffin oil, and oil of citronella, in proportions substantially as specified.

6. A composition for preventing smut of printing ink, comprising mutton tallow, var-

nish, starch, paraffin oil, and oil of citronella, in proportions substantially as specified.

7. A composition for preventing smut of printing ink, comprising tallow, varnish, cornstarch, paraffin oil, and oil of citronella, in proportions substantially as specified.

8. A composition for preventing smut of printing ink, comprising mutton tallow, varnish, cornstarch, paraffin oil, and oil of citronella, in proportions substantially as specified.

PATRICK S. BYRNE.

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