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PRINTING INK

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This invention relates to certain new and useful improvements in printing ink, the peculiarities of which will be hereinafter fully described and claimed.

Heretofore, printing inks have been made by mixing the coloring matter with a water-in-oil emulsion of mineral oil, water, and wool grease. Such inks have varied widely in the characteristics desired for use in lithography. My compound, composed of several known ingredients in the proportions hereinafter stated, when added to offset ink for lithographic printing, very notably improves such ink.

The main objects of my invention are to provide means first, to give finish to the ink; second, to build up the body; third, to keep it from bleeding; fourth, to add to the covering power; and fifth, to make impressions stand out and increase the brilliancy thereof.

Practical use of my compound with offset ink in lithographic work has demonstrated its efficiency in attaining the above stated objects. The ingredients and preferred proportions are as follows:

4½ parts of a synthetic resin in the form of a phenol-condensation product in the shape of a hard, rosin-like compound, such as "Amberol"

4 parts of China-wood oil

4 parts of wool grease

These ingredients are mixed and heated in a suitable receptacle such as a kettle till thoroughly dissolved, while being stirred continually. After being so treated for two hours or less, the kettle with the compound is removed from the source of heat, and the stirring is continued while cooling, till the dark amber color changes to a straw color, similar to the change in molasses candy being pulled. The bulk is increased about ten percent; the consistency is that of cold molasses, and retains its straw color indefinitely.

If desired, some wintergreen essence is stirred into the cooling compound to give it a pleasant odor.

For use, this compound is added to offset ink for lithographic printing in the proportion of one-half ounce up to two ounces of the compound, according to the brilliancy desired, to each pound of offset ink, and thoroughly mixed therewith by stirring, grinding or otherwise.

The functions of the above named ingredients in my compound, are as follows:

The phenol-condensation product, such as "Amberol", gives body to the ink and brilliancy of impressions.

China-wood oil brings the "Amberol" down to a fluid state of body.

Wool grease, or other suitable fatty ingredient, holds it to that body desired and reduces the tackiness so that it is more pliable.

This compound may also be used with letter-press ink by thinning it by the addition of more China-wood oil in excess of four parts or other suitable liquefying agent.

In use, my compound mixed with printing ink as stated, gives a finish to the ink; keeps it from bleeding; will not liver the ink if it stands, which a #7 or #8 varnish will do under present usage; increases the mileage of the ink; makes the ink stand up in relief on the surface of the sheet, and increases the brilliancy of the same.

I do not confine my invention to the exact proportions herein stated.

I claim:

1. An improved printing ink for lithographic use consisting of an offset ink to which is added a compound composed of substantially four and one-half parts of a hard, rosin-like phenol-condensation product, 4 parts China-wood oil as a liquefying agent, and 4 parts wool grease as a body-holding fatty ingredient, and ½ oz. to 2 oz. of said compound being mixed with each pound of the offset ink according to the brilliancy desired.

2. An improved printing ink for letter-press work consisting of a letter-press ink to which is added the herein described compound composed of substantially 4½ parts of a hard rosin-like phenol-condensation product, China-wood oil in excess of 4 parts as a liquefying agent, and 4 parts of wool grease, said compound being thinned to the desired consistency for letter-press work by adding more liquefying agent, and then added to each pound of the letter-press ink in the proportion of ½ oz. up to 2 oz.

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