

UNITED STATES PATENT OFFICE.

WILLIAM N. BLAKEMAN, JR., OF MOUNT VERNON, NEW YORK.

PROCESS OF THICKENING DRYING-OILS.

SPECIFICATION forming part of Letters Patent No. 496,988, dated May 9, 1893.

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To all whom it may concern:

Be it known that I, WILLIAM N. BLAKEMAN, Jr., of Mount Vernon, in the county of Westchester and State of New York, have invented
5 a new and useful Process of Thickening Drying-Oils while Preserving their Color and Drying Qualities Unimpaired, which invention is fully set forth in the following specification.

The object of this invention is sufficiently
10 indicated by its title.

The invention will first be described in detail and then set forth in the claims.

In carrying out this process, I first select a metallic soap, preferably a metallic soap capable of absorbing carbonic acid, such as
15 alumina-soap, which by the aid of heat, I dissolve in an animal or vegetable oil not degenerated by the heat employed. Of the vegetable oils sunflower seed oil may be employed,
20 but I prefer to use cotton seed oil. Into the oil I put about twenty to thirty per cent. of the metallic soap, or a quantity sufficient to bring the mixture to about the consistency of jelly. The soap may be mixed to saturation,
25 but the percentage above named is preferable in practice. This thickened oil I then mix with the drying oil, either by agitation alone or by the assistance of a water-bath of moderate temperature. A proportion of from five
30 to seven per cent. of thickened oil to the drying oil will give good results, but more or less than said proportions may be employed. When cold, this mixture will be found of greater adaptability for holding or carrying
35 pigments than the oil before treatment. The color of the oil also will remain unimpaired and its drying qualities will be preserved or improved by said treatment. First, for the reason that the high heat necessary for completely dissolving the metallic soap having an
40 affinity for carbonic acid does not degrade the character or color of the cotton-seed-oil, but rather tends to bleach it; and second, because the use of the metallic soap having an affinity
45 for carbonic acid assists and quickens the siccativ action of the already drying character of the oil.

I do not claim merely the mixing of a metallic soap with a drying oil for thickening or
50 pigment-carrying purposes as such mixtures have been tried, though with only partial success, the objection to their extended use being that the heat employed, necessary to effect

the mixture, gives such a dark color to the oils that they do not afterward bleach and thus
the utility of the mixture is restricted in a very great degree. I have overcome this difficulty by my process, by first mixing the metallic soap with an oil not degraded by the heat employed and then incorporating this
60 mixture, which has made this oil alkaline or basic, with the drying oil. I thus preserve the color of the drying-oil unimpaired, and if the soap employed be a metallic soap capable of absorbing carbonic acid the drying qualities of the drying-oil will be improved, in addition to the increase in its pigment-carrying-capacity, as before described. The drying-oil, thus treated as above, say linseed oil or other oil technically known as a "drying-oil,"
70 may be stored for future use or be used at once for mixture with any suitable pigment or pigments for the making of paints. Any ordinary commercial drier may be added to such paints where desired.

Having thus fully described my invention, I claim—

1. The process hereinbefore described of treating drying-oils, which consists in combining, with a drying oil, a mixture composed
80 of metallic soap mixed, by the agency of heat, with an oil not degenerated by the heat required, to effect the mixture, whereby the drying oil is rendered thicker and its color preserved, substantially as and for the purposes
85 set forth.

2. The process of treating drying oils for the purpose of thickening the same and preserving their color, consisting in first making a compound of metallic soap mixed, by the
90 agency of heat, with an oil not degenerated by the heat required to effect the mixture, and then adding this mixture to the drying oil selected, with the further application of heat, substantially as set forth.

3. The process of treating drying oils consisting in first making a mixture of cotton-seed-oil and a metallic soap, by the agency of heat applied thereto, and then adding this mixture to the drying-oil selected, with or
100 without the further application of heat, substantially as and for the purposes set forth.

WM. N. BLAKEMAN, JR.

Witnesses:

FRANCIS P. REILLY,
JAMES F. COURT.