

UNITED STATES PATENT OFFICE.

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COMPOSITION OF MATTER.

SPECIFICATION forming part of Letters Patent No. 715,751, dated December 16, 1902.

Application filed June 26, 1901. Serial No. 66,066. (No specimens.)

To all whom it may concern:

Be it known that I, JOHN W. BROWN, of Newburyport, in the county of Essex and State of Massachusetts, have invented certain
5 new and useful Improvements in Composition of Matter, of which the following is a specification.

My invention relates to a liquid composition which is designed principally as a preservative and coating for leather, although it may with advantage be applied to textile and other fabrics, wood, metal, earthenware, &c. When applied to leather by merely painting it on and allowing it to dry by the sun's rays
15 or otherwise, it penetrates the leather and becomes so combined therewith as to greatly increase the moisture-resisting as well as the wearing qualities of said leather without impairing its flexibility. I have found this
20 preparation to be exceedingly useful as a saver for the soles of shoes, and when, furthermore, it is compounded in substantially the manner and proportions hereinafter specified as appropriate for the purpose one application or coating of the liquid, or more
25 than one application if an extra good result is desired, to the upper-leather of boots and shoes or to hides or skins designed to be made up into boot or shoe uppers or other
30 goods, the said application being allowed to dry in the sun or in any ordinary manner, will result in a leather having the glossy appearance of so-called "patent-leather," but possessed of much greater flexibility, freedom
35 from cracking, scarring, or tarnishing, and durability.

To prepare the composition as a coating to give a patent-leather effect, the method and materials of preparation which are the best
40 now known to me are as follows: Take parts, by weight, of the following substances in the proportions specified: boiled linseed-oil, four parts; Trinidad asphaltum, four parts; spirits of turpentine, nine parts. Heat the asphaltum
45 in a kettle until melted to a thin liquid, which melting will take place at a temperature in the neighborhood of 400° centigrade. In a separate kettle heat the linseed-oil to a temperature near its flash-point, and then add
50 the oil slowly to the asphaltum, stirring meanwhile. During the mixing of the liquids in

this manner a slight frothing takes place, which seems to indicate chemical action or union between the two substances. All naked lights nearby should be extinguished during
55 the mixing of the substances because of their highly-combustible nature under these conditions. The flash-point of the ordinary commercial linseed-oils is in the vicinity of 325° centigrade; but inasmuch as different specimens will vary in their flash-points it is preferable to rely on the ordinary test for flash-point in each particular instance—that is, the giving off of vapors by the oil to determine the
60 amount of heat which shall be imparted to the oil rather than to proceed by thermometric readings, since otherwise the oil may be heated to an undesirably combustible condition, in which condition also it has a tendency to chemically disintegrate or oxidize. The resulting compound of linseed-oil and asphaltum is allowed to cool until a thin film begins to form on its surface, at which time a portion of the turpentine is stirred in. Further
70 cooling is then allowed, after which the rest of the turpentine is added. The result may be termed "liquid No. 1." While liquid No. 1 is still warm it is measured out into a large mixing-receptacle, and there is mixed with it a good anime varnish, which may be called
80 "liquid No. 2," in the proportion, by volume, of two parts of No. 1 to three parts of No. 2. Such a varnish has as its constituents linseed-oil, gum-anime, and turpentine in equal parts, by weight. A varnish of different proportions or containing a different gum may be
85 used; but this I now consider best adapted to the purpose. By combining the two liquids in the proportion named the final composition has ingredients present in the following proportions, viz: asphaltum, two parts; linseed-oil, five parts; gum-anime, three parts; turpentine, seven and one-half parts. The amount of turpentine is subject to variation, according to the degree of fluidity or penetrativeness desired.
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My improved composition prepared as stated above when applied to upper-leather as a coating and dried imparts thereto a black finish, possessing a brilliancy of gloss, flexibility, durability, non-cracking, non-scarring, and moisture-proof qualities which have
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never before to my knowledge been attained or combined in any preparation.

When used as a sole-saver, the above-described preparation should be thinned down
5 with turpentine, since the high gloss is not then requisite and a higher degree of penetrative power is desirable. I therefore mix four (4) parts, by volume, of the above preparation with one (1) part of turpentine, in order
10 to obtain a liquid suitable for impregnating the soles of boots and shoes or leather articles generally and one which will dry quickly.

I do not limit myself to the method of preparation which involves the making up of liquid
15 No. 1 and liquid No. 2 separately and then mixing them, but may mix in the constituents of liquids No. 2 separately with the ingredients of No. 1.

I am aware that all of the ingredients herein mentioned, alone or with others, have been known as or under the general name of "varnish" and for various alleged purposes; but
20 this preparation is distinctively designed, first, as a leather preservative, especially of
25 leather exposed to water or moisture, like

shoes or leather belting running in water or steam, which distinguishes it from all leather preparations designed merely from appearances; secondly, as a flexible leather preservative, which distinguishes it from all varnishes for rigid surfaces; thirdly, as a preservative enamel impervious to water, which distinguishes it from all varnishes designed
30 merely for inside work; fourthly, as a leather preservative and enamel which will not crack, blister, or peel under changes of temperature, which distinguishes it from ordinary patent-leather.

I claim—

The herein-described composition of matter containing ingredients in substantially the following proportions, viz., asphaltum, two parts; linseed-oil, five parts; gum-anime,
35 three parts; and turpentine.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN W. BROWN.

Witnesses:

A. D. HARRISON,
C. F. BROWN.