UNITED STATES PATENT OFFICE.

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PYROXYLIN COMPOSITION.

1,234,921. Specification of Letters Patent. Patented July 31, 1917.

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To all whom it may concern:

Be it known that WALTER E. MASLAND, of Philadelphia, and in the State of Pennsylvania, has invented a certain new and useful Improvement in Pyroxylin Compositions; and do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates particularly to pyroxylin compositions containing aldol, and is applicable to the production of such compositions when used in connection with many different industries, although it has special application to the production of compositions provided for making coated fabrics.

The object of my invention is to provide a pyroxylin composition which is much tougher and less sticky in its finished and dry state than previous similar compositions containing oil alone. The compositions made in accordance with my invention containing aldol and oil are tougher and less sticky than pyroxylin compositions made with the same quantity of oil as the aldol and oil. A further object of my invention is to provide a composition which is tougher than previous compositions of a similar nature, and which is of such a nature that coated fabrics produced by the use of the same may be readily reëmbossed.

While my invention is capable of embodiment in many different forms, for the purpose of illustration, I shall describe only one embodiment of my invention.

Compositions made in accordance with my invention may contain widely varying proportions of aldol and oil. For example, the aldol may vary from two to forty per cent., while the oil may vary from ten to sixty per cent. A composition containing a high percentage of aldol, would, however, contain a low percentage of oil, and, similarly, a composition containing a high percentage of oil would contain a low percentage of aldol. In general the total quantity of aldol and oil should be in the neighborhood of from forty to seventy-five per cent. of the composition apart from the solvents present. As one example for carrying out my invention, a composition may be made comprising twenty parts of pyroxylin, eighteen parts aldol, fifty-two parts of castor oil and ten parts of pigment, and to this may be added from two hundred to four hundred parts of a solvent mixture, that is to say, a sufficient quantity to give a resulting jelly of the proper viscosity to work satisfactorily in a coating machine. The solvent mixture may contain sixty parts benzol, thirty parts ethyl alcohol and ten parts commercial ethyl acetate, the latter comprising about eighty per cent. ethyl acetate and ten per cent. ethyl alcohol.

A composition of this character is much tougher and less sticky than a composition containing the same quantity of oil alone, and the aldol gives the film better strength, and at the same time acts as a latent solvent, permitting the reëmbossing of the coated fabric when desired. In other words, by elevating the temperature of the film, or the fabric coated with the same, the film may be readily reëmbossed. It will also be found that the product is more elastic than in the case of a composition not containing aldol.

While I have described my invention above in detail, I wish it to be understood that many changes may be made therein without departing from the spirit of my invention, and that in particular, many changes may be made in the proportions given without departing from my invention.

I claim:

1. A composition containing pyroxylin, from 2 to 40% of aldol, and from 10 to 60% of a vegetable oil.

2. A composition containing pyroxylin, aldol and a vegetable oil, the amount of the aldol and oil being between 40 and 75% of the above constituents.

3. A composition containing pyroxylin, from 2 to 40% of aldol and from 10 to 60% of castor oil.

4. A composition containing pyroxylin, aldol and castor oil, the aldol and castor oil being between forty and seventy-five per cent. of the above constituents.

5. A composition containing pyroxylin, aldol and castor oil, the aldol and castor oil being between forty and seventy-five per cent. of the above constituents and the aldol being from two to forty per cent. and the castor oil from ten to sixty per cent. of the composition.

6. A composition containing about twenty parts pyroxylin, eighteen parts aldol, fifty-

two parts castor oil, a pigment and a volatile solvent.

7. A composition containing about twenty parts pyroxylin, eighteen parts aldol, fifty-two parts castor oil, a pigment and a volatile solvent, the volatile solvent being from two to four times the weight of the remainder of the whole composition.

8. A composition containing about twenty parts pyroxylin, eighteen parts aldol, fifty-two parts castor oil, a pigment and volatile solvent, the volatile solvent being from two to four times the weight of the remainder of the whole composition, and the solvent being comprised of about sixty parts benzol, thirty parts alcohol and ten parts commercial ethyl acetate.

In testimony that I claim the foregoing I have hereunto set my hand.

WALTER E. MASLAND.

Witnesses:
ARTHUR WRIGHT,
P. E. STRICKLAND.