

# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN LUBRICANTS FOR WOOL, &c.

Specification forming part of Letters Patent No. 131,345, dated September 17, 1872.

*To all whom it may concern:*

Be it known that we, ALEXANDER BONAR FLEMING, ROBERT IRVINE, and ROBERT CRAIG MACLAGAN, all of Leith, in the county of Mid-Lothian, North Britain, have invented Improvements in Lubricants to be Employed in the Manufacture of Fibrous Substances, of which the following is a specification:

This invention relates to the manufacture of a lubricant for use in the manufacture of fibrous substances, composed of oil or oils, such as the heavy oil obtained from the distillation of coal, shale, or petroleum, and commonly known in the trade as green or blue oil, either in its crude state or in a purified form, or resin-oil obtained by distilling resin in its crude state or in a purified form, Rangoon oil, and that obtained by distilling asphaltum, mixed or compounded with resin, fatty acids, such as stearic, margaric, palmitic and oleic acids, or any crude, raw, or manufactured materials containing such acids or being composed thereof, and with water holding alkalies or alkaline salts in solution.

In carrying out our invention we take such oil or oils, either separate or mixed together, and dissolve or mix with such, either one or more, of the above-mentioned resinous or fatty matters, and employ this mixture in conjunction with water and alkalies or alkaline salts to effect the end we have in view, namely, the formation of an emulsion or soapy mixture, which, when applied to fibrous materials, materially assists the carding and spinning thereof into yarn for the manufacture of textile fabrics, &c.

In carrying out our said invention we prefer to use the following proportions or mixtures of oil and resinous or fatty acids, or such materials as may contain the same: We take lubricating oil, or that which is commonly so-called, and prepared from either coal, shale, or petroleum, or resin-oil either crude or refined, or mixtures of these, or we make use of the oil obtained by distilling Rangoon oil, or that obtained from Trinidad asphaltum, or that obtained from the pitch left after the distillation of palm-oil, to either or all of which,

singly or combined, we add resin or fatty acids, or combinations containing the same, in the proportion of from five to ten percentum, and this mixture we further treat with water holding alkalies or alkaline salts in solution, so as to obtain an emulsion or soapy mixture, which we employ for the purpose of lubricating the fibrous materials to be used in the processes of spinning, heckling, carding, &c., and which is commonly known.

This emulsion we find is capable of allowing the fibrous materials to be spun with the same facility as in the process now in use by which oil or oils are used alone.

### *Claims.*

1. A lubricant, for use in the manufacture of fibrous substances, composed of any one or more of the heavy oils obtained from the distillation of coal, shale, or petroleum, or of resin-oil, or of Rangoon oil, or of those oils obtained by distilling asphaltum mixed with resin, in conjunction with water and alkalies or alkaline salts, for the formation of an emulsion or soapy mixture, substantially as described.

2. A lubricant, for use in the manufacture of fibrous substances, composed of any one or more of the heavy oils obtained from the distillation of coal, shale, or petroleum, or of resin-oil, or of Rangoon oil, or of those oils which are obtained by distilling asphaltum mixed with resin, in conjunction with animal or vegetable fatty or oily matters, or with fatty acids, together with water and alkalies or with alkaline salts, for the formation of an emulsion or soapy mixture, substantially as described.

In witness whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ALEXANDER BONAR FLEMING.

ROBERT IRVINE.

ROBERT CRAIG MACLAGAN.

Witnesses:

DAVID HARRIS,

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