UNITED STATES PATENT OFFICE.

PAUL MORITZ SPIESS, OF BREMEN, GERMANY, ASSIGNOR TO AMID DURON COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

GREASING TEXTILE FIBERS.

No Drawing. Application filed February 17, 1923, Serial No. 619,760, and in Germany February 27, 1925.

Hitherto for greasing textile fibers in the manufacture of combed or worsted yarn, fatty oils have been used, while in the manufacture of carded yarn technical oleic acid or so-called olein has been used. Fatty oils being used only in certain special cases. Although olein has the disadvantage that in consequence of its acid nature it acts detrimentally on the cards and other parts of the machines, it is used in large quantity not only for the reason of its low price, but also because it is able to form with the usual alkaline more quickly than fatty oils the soaps necessary in the milling and washing processes.

Now, according to my invention I use as greasing agents, instead of fatty oils and olein, synthetic esters prepared from saturated or unsaturated fatty acids preferably derived from coconut oil, palm-kernel oil, palm oil and arachis oil and monovalent alcohol as ethyl and methyl alcohol. These esters are prepared according to the usual known methods.

Ethyl alcohol is preferable in most cases, but also methyllic, propylvic and isopropylic alcohol or other monovalent alcohols can be used. In certain cases also polyvalent alcohols, such as glycol or glycerin can be used.

As a special example the ethyllic esters obtained from the fatty acids derived from coconut oil may be mentioned.

The esters used according to this invention have the following technical advantages:

The esters are liquid at ordinary temperature and have a low viscosity even if prepared from semi-solid fatty acid mixtures; therefore they are able to impregnate the fibrous material very easily and thoroughly.

There is no danger of the machines being attacked as it is possible to prepare esters which are completely neutral or, if desired, have only a predetermined content of free fatty acid.

The quantities of the esters necessary for greasing are smaller than those of oleic acid as their greasing properties are of course superior to those of oleic acid obtained from fatty oils.

While in the case of oleic acid it is very difficult to emulsify this acid material, it is easy to obtain a good emulsion with the esters used according to my invention, especially if emulsifying agents are used.

It is obvious that the esters according to my invention can also be used together with other greasing agents.

What I claim is:

1. The process of treating textile fibers, which comprises greasing the same with a synthetic ester of a monovalent alcohol and a fatty acid of the character set forth.

2. The process of treating textile fibers, which comprises greasing the same with a synthetic ester of a monovalent alcohol and an unsaturated fatty acid of the character set forth.

3. The process of treating textile fibers, which comprises greasing the same with a synthetic ester of a monovalent alcohol and a fatty acid obtained in refining edible oils and fats.

4. The process of treating textile fibers, which comprises greasing the same with a synthetic ester of a monovalent alcohol and a fatty acid obtained from coconut oil.

5. The process of treating textile fibers, which comprises greasing the same with an ethyllic ester of a fatty acid of the character set forth.

6. The process of treating textile fibers, which comprises greasing the same with an ethyllic ester of a fatty acid derived from coconut oil.

In witness whereof I have hereunto set my hand.

PAUL MORITZ SPIESS.