Patented Oct. 3, 1939

2,174,575

UNITED STATES PATENT OFFICE

2,174,575

ARTIFICIAL FIBER

Henry C. Forrest, Merchantville, N. J.

No Drawing. Application January 23, 1937, Serial No. 121,983

1 Claim. (Cl. 28—1)

This invention relates to pile material for rug and carpet manufacture, containing artificial fiber as a substitute for wool.

To produce durable rugs and carpets it is essential to use as the pile of the carpet or rug a fiber which is both flexible and durable. The only satisfactory material which has heretofore been found for this purpose is coarse wool, such as goat's wool and the like. By my invention I have produced an artificial fiber which may be substituted for all or a part of the coarse wool used as the pile material, i. e., pile yarn, in making a carpet or rug and which when so used gives the rug or carpet an attractive appearance and a durability as great as that of carpets and rugs in which the pile consists entirely of wool. The artificial fiber which I have invented can be manufactured at a cost much less than the cost of wool.

The artificial fiber for carpet manufacture which I have invented is a cupro-ammonium fiber similar to cupro-ammonium artificial silk fiber in chemical composition. Its physical characteristics are similar to those of coarse wool. Each individual fiber has a size of 25 to 30 deniers or more. It is strong and so pliable that it may be bent sharply without cracking. It has a crinkly form similar to that of a natural wool fiber.

In the manufacture of cupro-ammonium fiber it has heretofore been considered necessary to produce the fibers of small size, such as 1 or 2 deniers, in order that the liquid treatments required to precipitate the fiber and remove the copper from it may be effective throughout the cross-section of the fiber. I have found that by the continuous process described in my application, Serial No. 7,326, filed February 20, 1935, on which Patent No. 2,108,285 was issued to me on February 15, 1938, cupro-ammonium fibers, each of 25 deniers or more, may be effectively treated with precipitating and washing liquids throughout the cross-section of each fiber. Large cupro-ammonium fibers made in this way are made crinkly by drying them without tension. After the final washing, the fibers are not dried on a heated drum under tension, but are dried while suspended without substantial tension, either before or after they are cut into lengths (from 3 to 5 inches), which are suitable for use in carpet manufacture.

The present application is directed to pile yarn spun from this artificial fiber. The fiber per se and the method of making it form the subject-matter of my application Serial No. 201,063, filed April 9, 1938, as a continuation in part of the present application.

What I claim is:

Pile yarn for use in carpets and rugs of the pile type, comprising supro-ammonium artificial fiber, each individual fiber having a size of 25 to 30 deniers and so strong and pliable that it may be bent sharply without cracking.

HENRY C. FORREST.

CERTIFICATE OF CORRECTION.

Patent No. 2,174,575. October 3, 1939.

HENRY C. FORREST.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: second column, line 27, in the claim, for "supro-ammonium" read cupro-ammonium; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 31st day of October, A. D. 1939.

(Seal)

Henry Van Arsdale,
Acting Commissioner of Patents.