

United States Patent Office.

WERNER STAUFEN, OF PARIS, FRANCE.

Letters Patent No. 81,702, dated September 1, 1868.

IMPROVED VEGETABLE FIBRE AS A SUBSTITUTE FOR HAIR.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WERNER STAUFEN, late of New York, United States of America, but now of No. 17 Rue de Hanovre, Paris, in the Empire of France, merchant, have invented "a new and useful Manufacture of a Vegetable Substitute for Animal Hair from a product not hitherto used for that purpose;" and I do hereby declare that the following is a full, clear, and exact description of the same; that is to say—

This invention consists in the manufacture of a species of vegetable hair from the fibrous material which grows through and proceeds from the bark situated near the foot of the palm known as the *Levistonina Chinensis*, *Roxb.*, or *Latania Chinensis*, *Tacq.* To this end, the fibrous material and adherent bark, as imported in the rough state, being first disintegrated by an opening-machine, are boiled in an alkaline lye, which may be composed of, say, from five to ten pounds weight of soda or potash, dissolved in one hundred gallons of water. This operation, which may occupy from one-half to two hours, according to the strength of the lye, is continued until the gummy, resinous, and ligneous matters adhering to the fibres are completely removed. The material thus cleansed is exposed to the action of a suitable mordant preparatory to its removal to the dyeing-vat charged with the required color, to which may be added a certain proportion of soapy matter, say from one to four pounds of oil-soap for every hundred pounds weight of fibre. The dyeing-process being completed, the mass is dried in the open air, or artificially, and is thereafter submitted to the action of ordinary opening and combing-machinery, by which the filaments are glazed and divided to the required degree of fineness. The fibrous material thus obtained may be applied to the different purposes for which horse-hair, bristles, and other kinds of hair have hitherto been employed as articles of commerce. When intended as a substitute for bristles, (as, for instance, in the manufacture of brushes,) the coarser fibres are selected and left straight, but, when intended for stuffing and similar purposes, in lieu of horse-hair, they are curled in the same manner as the latter, after which they are steeped in water till softened, and finally baked at a high temperature, (say about 140° Fahrenheit.) The finer fibres may be mixed, when so desired, with other animal or vegetable fibrous or textile matters, the proportions of such mixtures being varied according to circumstances.

Having now described and ascertained the said invention, and the processes by which it may be carried into effect, I declare that I claim, and desire to secure by Letters Patent—

The manufacture, substantially as above set forth, of a species of vegetable hair from the fibrous material which grows through and proceeds from the bark situated near the foot of the palm known as the *Levistonina Chinensis*, *Roxb.*, or *Latania Chinensis*, *Tacq.*

WERNER STAUFEN.

Witnesses:

M. F. MENNONS, *Patent-Solicitor, Paris.*

T. BEYANÇON, *Clerk to above.*