

UNITED STATES PATENT OFFICE.

HENRI M. DE VILLENEUVE, OF PARIS, FRANCE, BY HIS ADMINISTRATOR,
WM. O'CONNOR, OF JERSEY CITY, NEW JERSEY.

PRODUCING A SUBSTITUTE FOR WOOL FROM JUTE.

Specification forming part of Letters Patent No. 6,372, dated April 24, 1849.

To all whom it may concern:

Be it known that I, WILLIAM O'CONNOR, of Jersey City, State of New Jersey, administrator of the goods and chattels, rights, and credits which were of the late HENRI MENEAU DE VILLENEUVE, a citizen of the republic of France, residing in the city of Paris, do claim the said DE VILLENEUVE to have invented or discovered a new and useful mode of obtaining or manufacturing from a vegetable substance not heretofore so employed a fibrous material, which he denominated "Vegetable Wool," (and for which he had obtained a patent in the republic of France on 23d June, 1840,) and which when obtained can be spun, woven, and otherwise applied to a great variety of purposes to which animal wool is ordinarily applied, for which it in most cases becomes a perfect substitute and is with difficulty distinguished therefrom; and he declared the following to be a full and exact description thereof.

He employed that kind of hemp which is known in commerce under the name of "jute" or "Calcutta" hemp, a species of Eastern hemp which has heretofore been esteemed as the least valuable of the different species, its market value rarely exceeding one-third of that of other kinds; but he had ascertained that it is the only kind found in commerce possessing the qualities necessary to its being manufactured into vegetable wool, this resulting from its peculiar elasticity and the indefinite divisibility of its fibers, in consequence of which it can be so prepared as to render it applicable to the manufacturing of the finest *mousseline de laine*, as well as to the coarser fabrics to which wool is applied—such as rugs, carpeting, blankets, &c. In order to reduce this hemp into fine fibers, he adopted the following process: In the first place he made the hemp up into twists weighing three or four pounds each, taking care to make said twists as hard as possible. The twists are then to be forcibly beaten by placing them under beaters like those of a fulling-mill, or under stampers, or between rollers, such as are used for various purposes in the arts. Care must be taken that they are subjected to the action of the beaters with all attainable regularity, as upon this the equality of the fiber is dependent, while its fineness depends upon the length of time that the operation is continued. When the fibers have attained that fineness which adapts them to the

purpose to which they are to be applied the material is to be taken from under the beaters and untwisted. It is then to be drawn carefully through a hackle or comb—such as is used for separating tow from hemp or flax—and this operation is to be continued until the whole has been brought into the state of light flakes. The substance when it has been thus treated, however fine its fibers may be, will still retain its native harshness and color; but of these it will be deprived by the next operation to which it is submitted, and without impairing its elasticity or any of its other desirable properties. This process is as follows: A bath of chloride of lime is to be prepared, and which should be of a strength marking 7° by Baumé's hydrometer for salts. Into this the fibers are to be put, and to be continued in it until the color is discharged. After it has been removed, washed, and dried it is ready to be carded, spun, dyed, woven, and otherwise used for those purposes to which animal wool, silk, and linen is generally applied. Other chlorides may of course be used in the bleaching process, but that of lime is the most economical.

Having thus fully described the nature of said DE VILLENEUVE'S invention or discovery, what is claimed therein and desired to be secured by Letters Patent to WILLIAM O'CONNOR, administrator, &c., is—

The producing of a material which may be substituted for animal wool by taking that species of hemp called "jute" or "Calcutta" hemp, and reducing it into fine fibers capable of being spun into yarn or thread of various degrees of fineness by stamping, combing, and otherwise treating it, substantially in the manner herein set forth.

It is not sought to claim either of the individual processes herein described as of said DE VILLENEUVE'S invention, but it is sought to claim him to have produced, by their combined operation, from a material hitherto of little value, a fibrous substance of great utility and not hitherto known in the arts.

WM. O'CONNOR,
Administrator to estate, of late Henri Meneau De Villeneuve.

Witnesses:

JOSEPH STUNZ,
JOHN LAMB.