

UNITED STATES PATENT OFFICE.

HENRI MESSMER, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF AND
ISAAC HEY, JR., OF THE SAME PLACE.

IMPROVEMENT IN PREPARING VEGETABLE FIBERS FOR TEXTILE AND OTHER FABRICS.

Specification forming part of Letters Patent No. **67,997**, dated August 20, 1867.

To all whom it may concern:

Be it known that I, HENRI MESSMER, of Newark, Essex county, New Jersey, have invented a new and useful Improvement in Preparing Vegetable Fibers for Textile and other Fabrics; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same.

My invention consists in a new and improved process of treating China grass, sea-grass, sedge, and all similar fibrous plants, for the purpose of extracting or separating therefrom the fiber for the manufacture of thread, cloth, or similar articles.

My improved process consists in first soaking the fibrous material for about twenty-four hours in lukewarm water, after which it is passed between corrugated rolls. I then place the material in a solution of caustic potash and raise the temperature to the boiling-point, and continue to boil it for eight hours, after which it is again passed between the rolls, and then soaked for a while in lime-water, and then washed in warm water. After being again passed between the rolls it is soaked in a solution of acetic or other acid to neutralize the alkali, and then boiled therein for two hours, after which it is washed and dried, it being passed between the corrugated rolls between each successive step in the process, by which means the woody portion is broken up and entirely removed or separated from the fiber.

Having thus separated the fibrous portion of the material it is now ready for bleaching and final treatment, which consists, first, of

steeping or soaking it in a solution of the chloride of lime or its equivalent for about half an hour, after which I steep it in a dilute solution of sulphuric acid or its equivalent, and then complete the process by treating the fiber with any suitable anti-chlor, for the purpose of neutralizing any remaining chloride. For this purpose there may be used the sulphite, bisulphite, hyposulphites of the alkalies, alkaline earth, or any alkaline producing neutral compounds with the chlorine, and that can be easily removed by washing.

When thus treated the fiber is ready for the manufacturer, and may be used with machinery the same as any similar fiber.

By this process or method of treating fibrous material the fiber is readily and thoroughly separated from the woody or waste portions, and the fibers themselves separated and reduced to an unusual degree of fineness, thereby producing a thread or fabric of superior quality. By this means many plants hitherto useless, or comparatively so, are rendered capable of being converted into beautiful and valuable products.

Having thus described my invention, what I claim is—

The process herein described of treating fibrous plants for the purpose of separating or extracting the fiber therefrom, substantially as set forth.

HENRI MESSMER.

Witnesses:

WM. F. McNAMARA,
ALEX. F. ROBERTS.