

UNITED STATES PATENT OFFICE

ALFRED F. BILDERBECK GOMESS, OF LONDON, ENGLAND.

PROCESS OF TREATING TEXTILE VEGETABLE FIBERS.

SPECIFICATION forming part of Letters Patent No. 548,120, dated October 15, 1895.

Application filed November 30, 1894. Serial No. 530,463. (No specimens.)

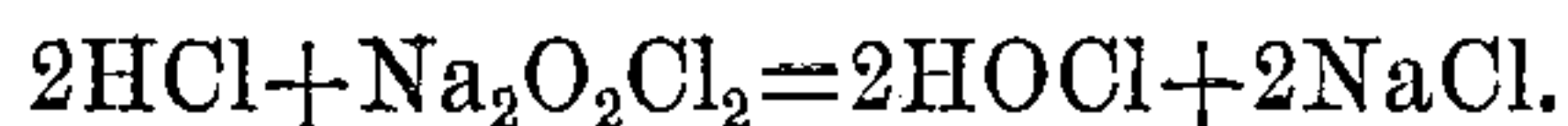
To all whom it may concern:

Be it known that I, ALFRED FRANCIS BILDERBECK GOMESS, chemist, a subject of the Queen of Great Britain, residing at 24 Alfred Place, West South Kensington, in the city of London, England, have invented an Improved Process of Treating Textile Vegetable Fibers, more especially applicable to those of the *Urtica* family; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My present invention relates to an improved process for the treatment of textile vegetable fibers, and is more especially applicable to fibers of the *Urtica* or nettle family; but it is also applicable to the preparation of the fibers from the cortex of other plants.

According to this invention I soak the ribbons for some hours in dilute nitric acid. I then remove the ribbons from this acid bath and immerse them in a solution of an alkaline base, (preferably the hydrate,) in order to neutralize the acid. After I have treated the ribbons as above described, I boil them for about three hours in a solution of a caustic alkaline base and zinc, (preferably in the form of zinc-dust or flue-dust, being the deposit in the flues in the manufacture of zinc, and a mixture of metallic zinc and zinc oxide.) By the above treatment the ribbons are entirely deprived of their epidermis without the fiber

sustaining any damage whatever. I next boil the fiber in a weak solution of an alkaline base, such as the hydrate, for from one to two hours, and then wash the fiber, preferably under pressure. The ribbons will now be found to be deprived of the lime, gum, and epidermis, and will also be partially bleached. Should it be required to further bleach them, this may be done by soaking the fiber in a solution of hypochlorite of an alkaline base and hydrochloric acid in such proportions that hypochlorous acid and not chlorine is formed, according to the equation:



This solution must not be too strong or the cellulose will be attacked and damaged. The fiber is then dried and is ready for slivering and spinning.

Having fully described my invention, what I claim, and desire to secure by Letters Patent, is—

In the treatment of textile vegetable fibers: soaking the ribbons in dilute nitric acid then neutralizing the acid by placing the ribbons in an alkaline bath, and then boiling said ribbons in a solution of a caustic alkaline base and zinc, so that one of the compounds formed may be hydroxylamine.

A. F. BILDERBECK GOMESS.

Witnesses:

A. E. VIDAL,
A. BROWNE.