

United States Patent Office.

JAMES MONACH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIM-
SELE, JOHN HUTCHINSON, AND JEFFREY HART, OF SAME PLACE.

Letters Patent No. 77,073, dated April 21, 1868.

IMPROVEMENT IN PREPARING JUTE-YARNS.

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, JAMES MONACH, of Philadelphia, Pennsylvania, have invented a Substitute for Yarns of Wool and other fibres; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of jute-yarn, treated with caustic alkali of from forty to sixty degrees Twadell's hydrometer, substantially as described hereafter, so as to render it available as a substitute for or for being combined with yarns of wool and other fibres in the manufacture of textile fabrics.

In order to enable others to make my invention, I will now proceed to describe a mode of carrying the same into effect.

I have ascertained by repeated experiment that ordinary jute-yarn, which is of so brittle a character that its use is confined to the coarsest fabrics, may be made so tough and elastic as to be but little inferior as regards these qualities to wool, by boiling the yarn in caustic alkali of from forty to eighty degrees Twadell's hydrometer.

After being boiled for about two hours, the yarn is removed from the alkali, washed in clean water, and then steeped for a short time in a weak solution of sulphuric acid and water, or other preparation which will remove the alkali, after which it is again washed in clean water and afterwards dried, when it is in a condition to be used in the manufacture of textile fabrics, as a substitute for woollen yarn, which it resembles both in appearance and quality of fibre. The jute-yarn thus prepared can be bleached and dyed, and can be used alone, or in conjunction with woollen or other yarns, in the manufacture of substantial knitted or woven fabrics of a comparatively fine quality.

I do not desire to claim broadly boiling jute-fibres in caustic alkali, as this has been heretofore practised; nor do I claim broadly jute-fibres boiled in alkali of a strength of about sixty degrees Twadell's hydrometer, as a patent for this, as a new manufacture, was granted to me, and Jeffrey Hart, and Robert Thorp, on the fourth day of February, A. D. 1868; but

I claim as my invention, and desire to secure by Letters Patent—

As a new manufacture, jute-yarn treated with caustic alkali of from forty to eighty degrees Twadell's hydrometer, substantially as described for the purpose specified.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES MONACH.

Witnesses:

JOHN WHITE,
HARRY SMITH.