

United States Patent Office.

C. C. FITZGERALD, OF PHOENIX, NEW YORK.

Letters Patent No. 85,079, dated December 22, 1868.

IMPROVED PAPER-PULP.

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, C. C. FITZGERALD, of Phoenix, in the county of Oswego, and State of New York, have invented a new and improved Paper-Pulp; 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 understand the same.

This invention relates to a new article of manufacture, prepared from the stock of the plantain-tree, (*Musa sapientum* and *Musa paradisiaca*,) which, especially in the West Indies, grows to a considerable size, and from which, by proper manipulation, a superior paper-pulp can be produced.

I will now proceed to describe one method of preparing the stock, so as to produce the pulp, reserving, however, the right to produce the same by any other suitable process.

The roots and leaves are first cut off the stock of the plant, and the stock is then run through a succession of rollers, which are immersed in water. Between these rollers it is pressed, to have the acid and liquid matter discharged from it. A mass of long fibres is thus produced. These long fibres are put through a set of toothed washing-rollers, whereby they are torn and still better cleaned.

The reduced fibre is then immersed in a bath of chloride of lime, mixed with hot water and tartaric acid,

in about the proportions of one part of the chloride of lime to thirty-two parts of water, and to one thirty-second part of tartaric acid, and is thereby bleached.

In a second bath of oil of vitriol and water, mixed in about the proportions of one part of oil of vitriol to five hundred parts of water, the bleaching-process will be completed, and the fibre will be softened.

The chemicals are then washed out in a water-bath, by agitation, and the fibres, which are now a pulpy mass, are then dried. This is done either in a centrifugal or any other suitable drying-machine.

The pulp is now completed, and can be treated and used in the same or similar manner in which paper-pulp is now generally treated or used.

I do not claim the process herein described, nor any other process of producing paper-pulp from the plantain-tree; but

I do claim, and desire to secure by Letters Patent—

Paper-pulp, prepared from the fibres of the plantain-tree, either in the manner herein set forth, or otherwise, as specified.

The above specification of my invention signed by me, this 10th day of July, 1868.

C. C. FITZGERALD.

Witnesses:

ALEX. F. ROBERTS,
FRANK BLOCKLEY.