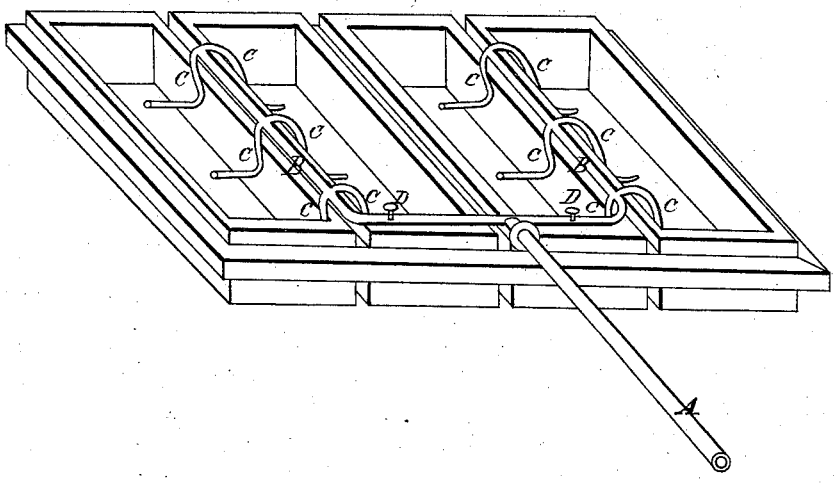
T. H. BARLOW.

Rotting Fiber.

No. 4,094. Patented June 25, 1845.



UNITED STATES PATENT OFFICE.

THO. H. BARLOW, OF LEXINGTON, KENTUCKY.

PROCESS OF PREPARING HEMP.

Specification of Letters Patent No. 4,094, dated June 25, 1845.

To all whom it may concern:

Be it known that I, THOMAS H. BARLOW, of the city of Lexington and State of Kentucky, have invented a new Mode of Rotting Hemp and Flax; and I do hereby declare that the following is a full and exact description.

A sufficient number of vats should be constructed of a suitable size. I recommend that they be made 8 feet wide, 5 feet deep, and 30 feet long. The size however is not essential. They may be constructed above ground, and if so, they should be made like the forebay of a mill, strongly planked inside, and boarded up on the outside of the frame, and the space between the two to be filled up with clay, saw dust or any other substance, which will exclude the sun and weather from the exterior of the inner lining, and thereby prevent leaking. If sunk in the ground, the vats should be constructed like tan vats; but in both cases, they must be so constructed as that the water can be drawn off from the bottom. The number of vats should be an even one, for a reason that will appear in describing the mode of applying steam. The vats being prepared, in such number as will be proper for the business to be done, and placed parallel with each other, a steam boiler will be placed in a furnace after the plan of a steam engine, which may be located at the end of the vats; from which a steam pipe A, will extend to the vats; and from this main pipe A, smaller branch pipes B, B, will be carried to the intervals between the vats, so that each branch pipe will serve for two vats. From the branch pipes B, smaller branch pipes C, C, C, C &c. extend into the vats over the edges, and reach nearly to the bottom, at intervals of about four feet, but sufficient to convey the steam rapidly into them if required. Each pipe should be supplied with a stop cock D, near its principal branch, so as to control the discharge of the steam, and increase or diminish it at pleasure. Those intervals between the vats through which the branch pipes pass, may be from 18 to 24 inches. The other intervals should be wide enough for a hand cart to pass in, to fill and empty the vats of hemp. In vats thus arranged place the hemp stalks, tied up in bundles of moderate size, and cover them with water. After being immersed let in the steam so as to raise the temperature of the water to a degree from 80° to 120°; let the hemp macerate at that degree, until when handled, it shall be slippery and approaching to putrefaction, which will generally occur at the end of 36 hours; sometime requiring more time. At that stage of the process, let in the steam so as to raise the water to the boiling point, and continue it at that point for one or two hours, until the glutinous matter of the hemp be thrown off. Then draw off the water while hot and as soon as the hemp is cool enough to be handled, set it up in open shocks, or spread it on the ground to dry. By adding any kind of alkali to the water while the hemp is macerating the process will be much shortened; and where the article is intended for fine fabrics, the alkali is necessary as it not only hastens the process, but improves in some measure the texture of the hemp or flax.

Hemp or flax when rotted by this process, produces a larger quantity, and of far better quality, than when they are rotted, by either dew or cold water. The hemp is stronger and takes tar better. Being free from gluten the hemp will stand exposure to the atmosphere better.

What I claim as my discovery, and desire to secure by Letters Patent, is—

The above process of preparing hemp or flax; by first steeping it in warm water until it is completely macerated, and then as soon as it has been brought to this macerated condition, the temperature of the water is to be immediately raised to, or above, the boiling point; by which means the further progress of fermentation and putrefaction is stopped; and by continuing the boiling of the water, a rapid and complete separation of the gluten from the fiber is effected.

THOS. H. BARLOW.

Witnesses:
T. C. DONN,
THO. H. HAVENNER.