

United States Patent Office.

HAYDN M. BAKER, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 91,407, dated June 15, 1869.

IMPROVED PROCESS OF CLEANING COTTON AND WOOLLEN-WASTES FROM OILS, GREASE, &c.

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, HAYDN M. BAKER, of Washington, in the county of Washington, and District of Columbia, have invented a certain new and useful Process for Cleaning Cotton, Woollen, and other Fibrous Substances from Oils, Gums, Resins, &c.; and I do hereby declare that the following is a full and exact description thereof.

My invention is based upon the property of hydrated soaps to combine with oils, gums, and resins while in a fused condition, forming a limpid fluid while warm, which may be expressed from the fibrous substance by mechanical appliances; and

My invention is further based upon the property of soaps to elect hot water in preference to oils, thereby disengaging the oils previously combined with the fibrous material; and

My invention consists in the process as hereinafter described, to wit.

I first provide a sufficiently capacious kettle to treat the quantity I desire to operate upon. I then melt the requisite quantity of soap in the kettle to thoroughly combine with all the oils, &c., in the fibrous material to be cleaned, when I then immerse the fibrous substances in the melted-soap, and agitate the whole mass of soap and fibrous material for such a length of time as will insure the thorough combination of all the oils, gums, resins, &c., with the soap. The fibrous substances are then passed through iron or other rolls, expressing the compound of soap, oils, gums, resins, &c., said compound so expressed running back into the kettle, while the fibrous substance is con-

veyed to another kettle containing boiling water, where it is allowed to boil for a time, when it is wrung out and rinsed in clear water, and dried, being then ready for reuse.

The compound of soap, oils, gums, &c., is now treated with sufficient hot water to form a solution of the soap, thereby disengaging the oils which rise to the surface, and may be separated from the solution of soap by any convenient method. The solution of soap is then boiled to a dryness, or the condition of hydrate, when it is in condition to be re-used.

The advantages of my invention are that it provides a rapid and economical method for the removal of oils, gums, resins, &c., from fibrous substances without the destruction of the fibres.

Having fully described the mode and advantages of my improved process,

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

1. The use of soluble alkaline oleates, margarates, and stearates, (known in the market as soaps,) either in the anhydrous or hydrated state, for the removal of oils, gums, resins, &c., from fibrous substances.

2. The process herein described, for the separation and recovery of the soaps and oils.

In testimony whereof, I have hereunto set my hand and seal, this 19th day of May, 1869.

HAYDN M. BAKER. [L. S.]

Witnesses:

WM. C. MCINTIRE,
J. W. KREPPS.