## Anited States Patent Office.

## JOSEPH TREAT, OF NEW YORK, N. Y.

Letters Patent No. 104.796. dated June 28, 1870.

## IMPROVEMENT IN THE MANUFACTURE OF SOAP.

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, JOSEPH TREAT, of the city, county, and State of New York, have invented a certain new and useful Improvement in the Manufacture of Soap, which I have designated as the "Patent Venetian Soap;" and I do hereby declare that the follow-

ing is a full description of the same.

The nature of my invention consists in making soap from the residuum obtained from the distillation of the oil known to the trade as the "Patent Refined Resine," (as I have designated the rosin-oil manufactured under my patent, No. 100,953, and dated March 15, 1870,) or white rosin-oil, &c., in combination with fats and oils, alkalies, acids, alcohol, and Venice turpentine, substantially as hereinafter more particularly specified.

I first take one hundred pounds of the residuum of the distillation of the "Patent Refined Resine," and add to it from eight ounces to ten ounces, or thereabouts, of alcohol, according to the density of or impurities contained in the residuum, which has been previously dissolved by the application of steam or heat otherwise applied to it.

To the mixture of alcohol and residuum I next add from half a pound to one pound of muriatic acid, and also about the same weight as Venice turpentine.

It will be obvious that these quantities will be varied, according to the varying densities of the residu-

um and quality of soap to be made.

When thus prepared, the mixture is combined with about fifty pounds each of tallow or fats, and cottonseed (or other vegetable) oils, and from twenty to thirty per cent., by weight, of soda, or other alkalies, ordinarily used in the process of making soap, for the purpose of saponifying the whole of the indredients, which is effected in the usual way of making soaps.

By my new manufacture, it will be obvious that, by utilizing the residuum, I not only make a new manufacture, but also increase the quantity of soap, and thereby greatly cheapen it, by saving the cost for the tallow or oils used, which would necessarily have to be used to make the weight of soap, while, at the same time, my improved soap is equally good as the best

soaps in the market.

It will be obvious that the "Patent Refined Resine," may be used as a substitute for the residuum, or mixed with the residuum, under some circumstances, but do not consider it either as good or as economical as would be the use of the residuum, which, to a certain extent, is a waste product of the distillation, though, as constituting a part of my new manufacture, I do not wish to be deprived of the right to the use of the "Patent Refined Resine," in connection with the residuum, as circumstances may suggest in making the different qualities of soap contemplated by my new manufacture.

Having now described my improvement in the manufacture of soap, I will proceed to set forth what I claim, and desire to secure by Letters Patent of the United States:

I claim—

The application and use of the residuum of the distillation of the oil designated by me the "Patent Refined Resine," or commonly called "white rosin-oil," or "French rosin-oil," in the process of making soap, as hereinbefore substantially described.

JOSEPH TREAT.

Witnesses:

CHARLES L. BARRITT, FRANKLIN BARRITT.