

United States Patent Office.

EDGAR T. JARROLD, OF TOTTENVILLE, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HIMSELF, HENRY S. GEROW, AND HENRY MCLEAN, OF NEW YORK CITY

Letters Patent No. 110,469, dated December 27, 1870.

IMPROVEMENT IN REFINING OIL FROM COTTON-WASTE, &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, EDGAR T. JARROLD, of Tottenville, in the County of Richmond and State of New York, have invented or discovered new and useful Mode or Process for Refining Oils and Fatty Matter obtained from Refuse Cotton-waste and like materials; and I do hereby declare that the following is a full, clear, and exact description thereof, and of its mode or manner of operation.

As is well known, it has heretofore been found very difficult, if not almost practically impossible, to refine, sufficiently to fit them for use again, the oils and fatty matter obtained from refuse cotton-waste and like materials, and which have become charged or combined with foreign matters, and many different processes for such purpose have been tried, though without really satisfactory results.

My invention or discovery has for its object to accomplish such result in a practical and effective manner, and in a comparatively economical manner, and my process is more specially adapted to purifying such oils and fatty matters obtained in the cleaning of cotton-waste by the benzine process, so called, but it is also applicable to the purification of such oils and greases obtained from cotton-waste and like material by other processes.

The oil or fatty matter having been obtained by any sufficient process from the cotton-waste, is first to be freed, as much as possible, from water, and is then run into a still, such as is generally used for the distillation of kerosene, and which may be of any suitable and convenient form and capacity, into which still provision is made for admitting steam, either common or superheated, by means of a coil of iron pipe placed in the bottom thereof, and pierced with holes of about an eighth of an inch in diameter and two or three inches apart, or by means of other sufficient apparatus or mechanism.

The still having been charged, is heated a sufficient time to bring the contents to a temperature of about 200° Fahrenheit, when steam of a temperature of from 250° to 450° Fahrenheit is admitted into the perforated pipe, and the process of distillation then continued until the charge is distilled.

The oil, as it comes over, is received in any suitable tank or vessel, and is afterward separated from the condensed steam and other matters carried over with it, by decantation, which latter operation may be repeated as found necessary.

The oil thus obtained is then treated with a preparation of sulphuric acid and bichromate of potash, in the proportion of about one gallon of sulphuric acid and three quarts of a cold saturated solution of bichromate of potash to one hundred gallons of the oil.

The oil, sulphuric acid, and solution of bichromate of potash are thoroughly mixed and incorporated together, and then allowed to stand, say for about twenty-four hours, when the clear oil is drawn off. This oil should then be well washed, when it is again allowed to stand for about the same length of time as before, or as long as it is necessary to settle it, when it is strained and its refining will be found to be accomplished.

If the oil is found to be not entirely refined by one washing with sulphuric acid and bichromate of potash, such washing may be repeated.

The refining of oils and greases obtained from refuse cotton-waste and similar materials has not, to my knowledge, before been effected by distillation in combination with the aid of steam, either common or superheated, and its subsequent washing with sulphuric acid and bichromate of potash.

For introducing the steam into the contents of the still I prefer a perforated coil, but it may be introduced by other means, and therefore I do not limit myself to any particular plan or method.

What is claimed is—

The mode or process of refining oils and greases obtained from refuse cotton-waste and similar material, by distilling such oils or greases in connection with steam, either common or superheated, introduced into the contents of the still, and afterward treating the same with sulphuric acid and bichromate of potash, substantially as described.

EDGAR T. JARROLD

Witnesses:

S. D. LAW,
A. T. GURLITS.