UNITED STATES PATENT OFFICE.

NELSON ROOT, OF FRANKLIN, PENNSYLVANIA.

IMPROVEMENT IN REFINING PETROLEUM.

Specification forming part of Letters Patent No. **151,623**, dated June 2, 1874; application filed March 30, 1874.

To all whom it may concern:

Be it known that I, NELSON ROOT, of the city of Franklin, in the county of Venango and State of Pennsylvania, have invented a new and Improved Process for Refining Crude Petroleum and other heavy oils into lubricating-oil, of which the following is a specification:

My invention relates to an improved process for refining oil, more particularly to a process for refining crude petroleum, or the products of petroleum, known as "heavy oils," into lubricating-oil, rather than to the refining of the lighter oils or fluids used for illuminating purposes.

My improved process is as follows: The crude petroleum or heavy oil is put into a tank, and from thence run through a heater similar to the heater of a steam-boiler, or in any convenient manner to heat the oil in its passage from the first tank to another, into which it is conducted while hot, and in which it is kept at the proper heat during the process. While the oil is in this condition it is treated as follows: To every eight barrels of the crude or heavy oil, I add one barrel of rosin, one pound of carbonate of potash, and about half a pound of nitrate of baryta. These ingredients are melted or heated together, and the compound thereby formed is run into the heated oil. The whole mass is then agitated by any suitable device until the ingredients are thoroughly mixed and incorporated with each other. It is then allowed to cool and settle, and drawn off into suitable packages.

The proportions of the ingredients may be slightly varied according as the specific gravity of the oil to be operated on is greater or less. Thus with very heavy oil a little more rosin may be used with advantage, and with oil lighter than the ordinary crude petroleum a good result may be obtained with less rosin; but the proportions of the ingredients as above set forth will be found the safest and productive of the best results generally.

I claim as my invention—

The process of refining crude petroleum and like heavy oils into lubricating-oil, by mixing them with rosin, potash, and baryta, in proportions and in manner substantially as herein set forth.

NELSON ROOT.

Witnesses:
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