

UNITED STATES PATENT OFFICE.

PATRICK FITZ SIMMONS, OF WEST TROY, NEW YORK.

IMPROVEMENT IN CLEANSING FISH-OILS.

Specification forming part of Letters Patent No. **4,439**, dated April 4, 1846.

To all whom it may concern:

Be it known that I, PATRICK FITZ SIMMONS, of West Troy, in the county of Albany and State of New York, have invented a new and useful Process for Cleansing and Purifying Whale-Oil; and I do hereby declare that the following is a full, clear, and exact description of the principle or character thereof, which distinguishes it from all other things before known, and of the mode of procedure.

Animal-oil, and particularly common whale-oil, contains gelatine and albumen in considerable quantities, the presence of which renders the oil unfit for giving light, as these impurities not only color the flame, but in a short time interrupt the capillary attraction of the wick which supplies the oil to the flame by stopping the pores, so that in a short time the wick becomes carbonized and the flame expires. Various attempts have been made to separate these substances from the oil by processes which are more or less objectionable; but, so far as I am informed, none have been fully successful. The oil, it is true, has been clarified and left in a limpid state by some of these processes; but by some of them portions of the ingredients employed have been retained either in chemical union with or mechanical suspension in the oil, so as to be nearly as injurious to the light as the presence of the gelatine and albumen, and others have been so expensive as to neutralize all the anticipated benefits. By my process, however, I attain the entire separation of the impurities by means of a cheap substance, no portion of which combines chemically with the oil or remains in mechanical suspension in it.

My process consists simply in mixing finely-pulverized alum with the oil. This substance, when thoroughly mixed with the oil, possesses,

as I have ascertained by experiment, the property of separating the impurities which are held in suspension in the oil, which, together with the agent, are precipitated, and leave the oil in a pure state.

The mode of procedure is as follows, viz: The oil is put into a large vessel, which I prefer to make flat to expedite the deposit process, and for a hundred gallons of whale-oil I put in from fifteen to twenty-five pounds of pulverized alum, in proportion to the quality of the oil, the former for the purest kind of whale-oil and the latter for the most impure. The whole is well stirred up two or three times a day for two or three days, so as to insure the perfect admixture and action of the alum on all the gelatine and albumen, and when these are precipitated the oil is drawn off in a pure state. If, however, it should be found that any of the alum is held in suspension in the oil, it can be separated by filtration through charcoal or sand.

It is to be observed that the quantity of alum is to be varied in proportion to the quality of the oil, the proportions given above being deemed sufficient to enable any one acquainted with the qualities of oils to increase or decrease the proportion to suit the quality of oil which is to be treated.

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

The method of separating the impurities from whale and other animal oils by means of alum under the treatment substantially as herein described.

PATRICK FITZ SIMMONS.

Witnesses:

ABRAM B. OLIN,
JOSEPH WHITE.