

UNITED STATES PATENT OFFICE.

MAURICE BIRD, OF SUGAR LAND, TEXAS.

PROCESS OF EXTRACTING COTTON-SEED OIL.

No. 853,759.

Specification of Letters Patent.

Patented May 14, 1907.

Application filed December 31, 1904. Serial No. 239,128.

To all whom it may concern:

Be it known that I, MAURICE BIRD, a citizen of the United States, residing at Sugar Land, in the county of Fort Bend and State of Texas, have invented new and useful Improvements in Processes of Extracting Cotton-Seed Oil, of which the following is a specification.

This invention relates to processes of extracting cotton-seed oil by the use of a hydrocarbon solvent.

The object of the invention is to separate the cotton-seed oil from the hydrocarbon solvent in the form of soap, whereby the operation of separating the cotton-seed oil and hydrocarbon by distillation is avoided; the hydrocarbon is separated from the cotton-seed oil in such clean and pure condition that it can be used over and over again in the process; and an excellent quality of soap is produced.

The improved process of this invention consists of the following steps; First, the cotton-seed oil is extracted from the cotton-seed product, such for example as cotton-seed meal, with the use of a hydrocarbon solvent such for example as kerosene. Second, the solution of the cotton-seed oil and hydrocarbon solvent is mixed with a solution of caustic-soda or other soap making alkali, and heated, preferably in a closed vessel to prevent the volatilization of the volatile ingredients of the hydrocarbon solvent. The cotton seed oil during this heating operation saponifies with the caustic-soda, or other soap making alkali forming a solution of soap which settles below the hydrocarbon solvent and is separated from it completely by a clearly drawn line. The soap is then drawn off and is ready for any suitable refining process, which forms no part of the invention. After the soap is drawn off the hydrocarbon solvent is ready for use in extracting another quantity of cotton-seed oil from the cotton-seed product.

In carrying out my invention I prefer to use kerosene as the hydrocarbon solvent, as

I have found that the cotton-seed meal from which cotton-seed oil has been extracted by the use of petroleum is worth practically as much after the oil has been extracted, as it was before, both as a fertilizer and as a food stuff, since no protein, nitrogen, phosphoric acid, or potash has been removed. Furthermore, the soap which is produced by the use of petroleum is of a superior quality. I have been able in practice to extract 260 pounds of cotton-seed oil in the form of soap from one ton of cotton-seed meal.

Changes in the exact process hereinbefore described may be made within the scope of the following claims without departing from the spirit of the invention or sacrificing any of its advantages.

Having thus described the invention, what is claimed as new, is:—

1. The herein described process which consists in extracting cotton-seed oil from the cotton-seed product by the use of kerosene, and subjecting the solution of hydrocarbon and cotton-seed oil to the action of a soap making alkali to separate the cotton-seed oil from the hydrocarbon in the form of soap.

2. The herein described process which consists in extracting cotton-seed oil from cotton-seed meal by the use of kerosene, and subjecting the solution of kerosene and cotton-seed oil to the action of a soap making alkali and heat to separate the cotton-seed oil from the kerosene in the form of soap.

3. The herein described process which consists in extracting cotton-seed oil from cotton-seed meal by the use of kerosene and subjecting the solution of hydrocarbon and cotton-seed oil to the action of a soap making alkali and heat to separate the cotton-seed oil from the hydrocarbon in the form of soap.

In testimony whereof, I affix my signature in presence of two witnesses.

MAURICE BIRD.

Witnesses:

HENRY FISHER,
CHAS. H. HINE.