

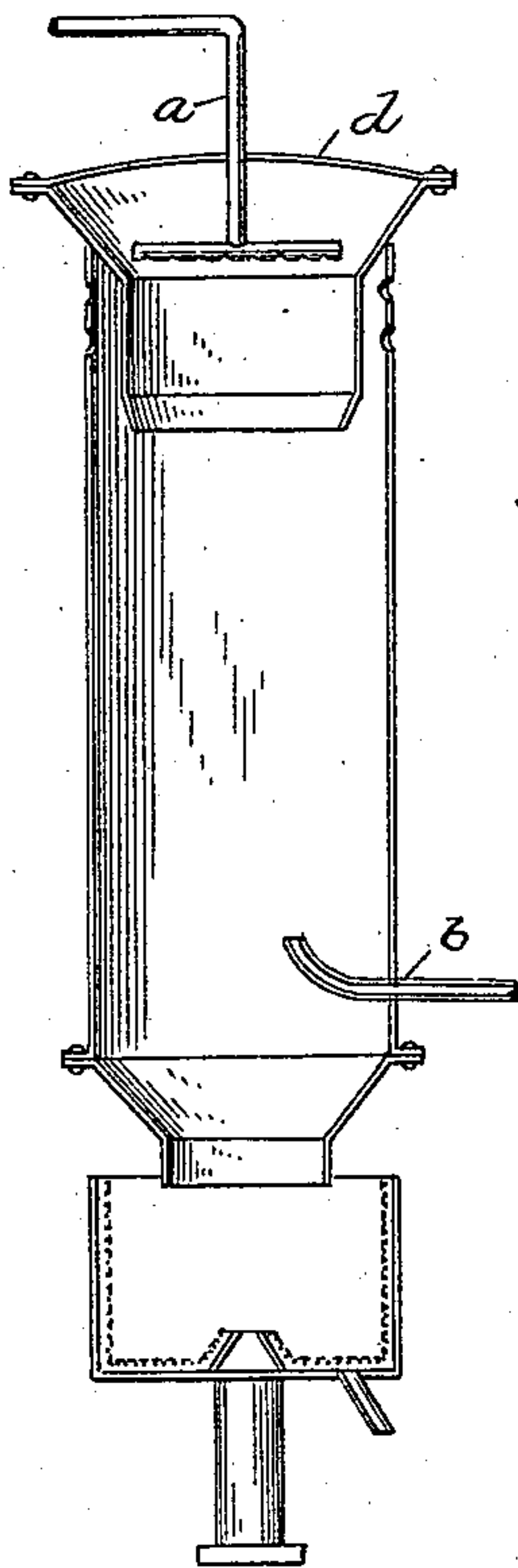
(No Model.)

L. H. FRIEDBURG.

EXTRACTION OF OILS.

No. 306,734.

Patented Oct. 21, 1884.



Attest:
J. L. Middleton
W. Donaldson

Inventor
Ludwig H. Friedburg
by J. J. Jones & Son

Attys.

UNITED STATES PATENT OFFICE.

LUDWIG HEINRICH FRIEDBURG, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, OF ONE-HALF TO THE UNITED STATES COTTON SEED CLEANING COMPANY, OF SAME PLACE.

EXTRACTION OF OILS.

SPECIFICATION forming part of Letters Patent No. 306,734, dated October 21, 1884.

Application filed March 1, 1884. (No specimens.)

To all whom it may concern:

Be it known that I, LUDWIG H. FRIEDBURG, of New York, in the county of New York and State of New York, have invented a new and
5 useful Improvement in Extraction of Oils; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention consists in the improved method of freeing oils and fats from any odor which
10 may remain therein imparted to the oils and fats during the process of extraction by means of naphtha or other solvents.

My invention consists in subjecting the oil in the form of drops or spray to a current of
15 dry hot steam. The oil may be caused to fall in the form of drops or spray in any suitable manner. I use a suitable compartment, a hollow drum or cylinder, or other convenient apparatus, in which the oil may be showered
20 down, meeting on its way a current of dry hot steam entering in the cylinder or other case or chamber near the base thereof, and in which the oil is falling. The accompanying drawing represents a vertical section of such a cylinder,
25 which may be twenty or thirty feet high, and

is provided with a cover, *d*. The pipe *a*, with the spraying attachment or nozzle, introduces the oil at the top of the cylinder. The pipe *b*, entering near the base of the cylinder, admits the dry steam. In the top of the cylinder, 30 four inches more or less from the cap, is a series of holes to allow the steam and odor to escape. Any suitable vessel is provided at the bottom to receive the oil, which will contain also some condensed steam inevitably cooled 35 by its surroundings. This may be separated from the oil before or after refining by means of a centrifugal apparatus.

I claim as my invention—

The hereinbefore-described process of de-odorizing oil, consisting in subjecting it in the form of drops or spray to the action of dry steam, substantially as described. 40

In testimony whereof I have signed my name to this specification in the presence of two 45 subscribing witnesses.

LUDWIG HEINRICH FRIEDBURG.

Witnesses:

ELIAS H. STEVENS,
CHAS. O. GRIM.