

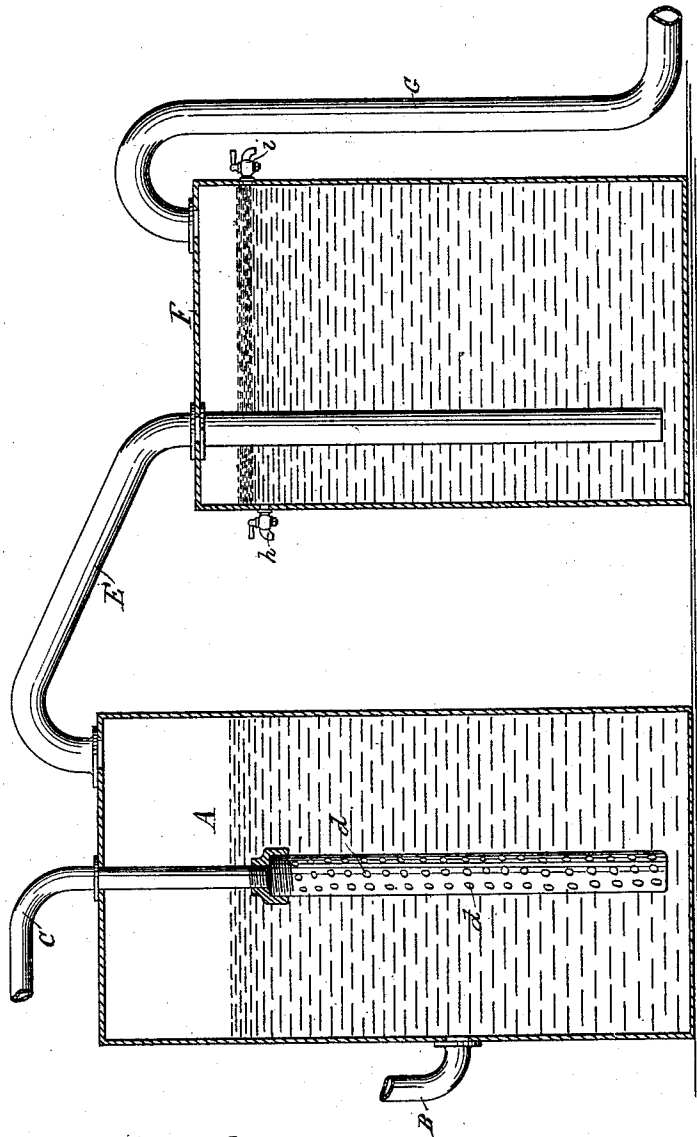
(No Model.)

B. T. BABBITT.

METHOD OF BLEACHING PALM OIL, &c.

No. 281,823.

Patented July 24, 1883.



Witnesses:
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UNITED STATES PATENT OFFICE.

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METHOD OF BLEACHING PALM-OIL, &c.

SPECIFICATION forming part of Letters Patent No. 281,823, dated July 24, 1883.

Application filed January 26, 1883. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN T. BABBITT, a citizen of the United States, and a resident of the city and county of New York, and State of New York, have invented a new and Improved Method of Bleaching Palm-Oil, &c., of which the following is a specification.

This invention is more especially intended for the bleaching of palm-oil, but may be employed advantageously for the bleaching of other oleaginous or fatty matters.

The invention relates to the method of bleaching oil or other oleaginous matters by injecting or causing superheated steam to pass directly into and through them. During such bleaching, the steam, after passing through the oil or matter, passes out, taking with it, in the form of vapor, some portion of the oleaginous matter, together with the noxious vapors or gases driven out of the oil or other matter by the steam; and the object of my invention is to recover and save such oleaginous matter as is carried over by the steam and to annihilate the noxious vapors or gases.

The invention therefore consists in an improvement in the method of bleaching palm-oil and other oleaginous matters, said improvement consisting in first subjecting such oils or matters to the action of superheated steam passing through and in direct contact with them, and afterward causing the steam which has passed through such oils or matters, and the vapors which it has taken up therefrom, to pass through water for the condensation and collection of any oleaginous particles from said vapors.

The invention also consists in a novel combination of parts in the apparatus which I employ.

The accompanying drawing represents a vertical section of an apparatus for carrying out my invention.

A is the bleaching-vessel, into which the palm or other oil or oleaginous or fatty matter to be bleached is introduced in any appropriate manner—as, for example, through the pipe B.

C is the inlet-pipe for the superheated steam, which may be admitted through the top of the vessel A, and is provided with many holes or

perforations, *d*, for the exit of the steam in numerous fine steam streams into the oil to be bleached.

E is the outlet-pipe, through which the steam and gases or vapors or matters taken up by it escape to a condensing-vessel, F, nearly filled with water. This tank is provided with an outlet-pipe, G, for the final escape of the noxious vapors to the ash-pit of the furnace.

h and *i* are cocks at different levels for the overflow of the water and oil in the condensing-vessel F.

The palm or other oil to be bleached having been introduced into the vessel A, superheated steam of, say, about 500° Fahrenheit, is admitted through the pipe C, and then passes through the openings or perforations *d* into the oil, through which it circulates in such manner as to reach every part, and whence it passes off through the pipe E to the condensing-vessel F. This steam takes with it, together with some noxious incondensable gases, some small particles of oil, which are unavoidably taken up in suspension by it. Any oil which has thus been carried off through the pipe E will be retained by the water in F, upon which it will float, and whence it may be drawn off by the upper cock, *i*. The steam will then finally pass out through the outlet-pipe G to the furnace or elsewhere. I find in practice that, after the oil or material in the bleaching-vessel has been heated throughout to the melting-point, about fifteen minutes is sufficient for the steam to effect a perfect bleaching.

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

1. The improvement in the method of bleaching palm-oil and other oleaginous matters, consisting in first subjecting such oils and matters to the action of superheated steam passing through and in direct contact with them, and afterward causing the steam which has passed through such oils and matters, and the vapors which it has taken up therefrom, to pass through water for the condensation and collection of any oleaginous or fatty particles from said vapors, substantially as herein described.

2. The combination of the vessel A for oil,

the pipe C, for injecting steam therein, the condensing-vessel F, provided with the draw-off cock *i*, the pipe E, leading from the upper part of the vessel A and terminating below the level of water in the condensing-vessel F, and the pipe G, leading from the vessel F, for conducting away noxious vapors or gases,

all substantially as and for the purpose described.

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Witnesses:

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