

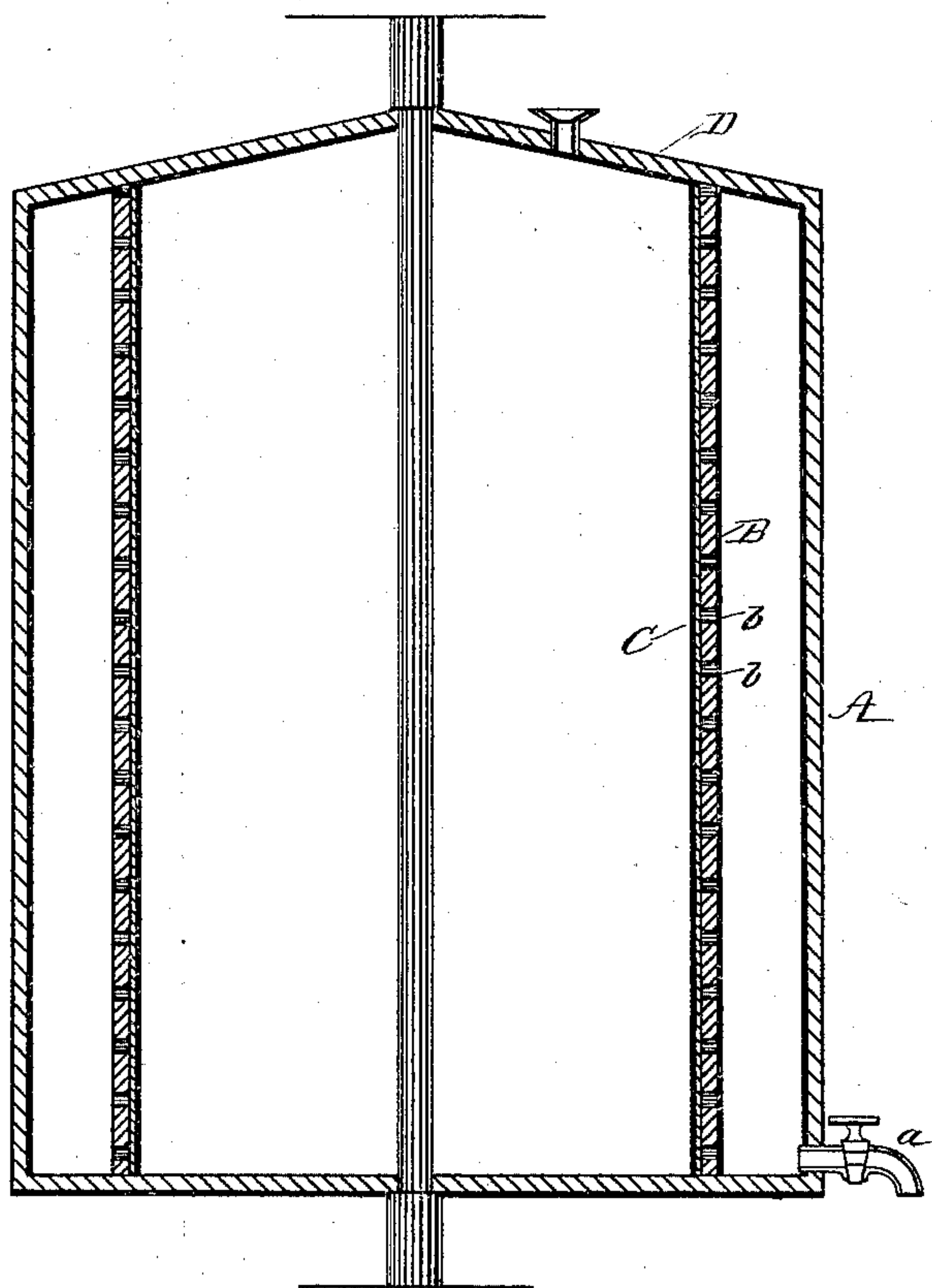
(No Model.)

G. AAB & S. K. CAMPBELL.

METHOD OF EXTRACTING PARAFFINE OR OTHER BODIES FROM PETROLEUM.

No. 369,902.

Patented Sept. 13, 1887.



WITNESSES

Willie Powell.  
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# UNITED STATES PATENT OFFICE.

GEORGE AAB AND SANFORD K. CAMPBELL, OF PHILADELPHIA, PENN-  
SYLVANIA.

METHOD OF EXTRACTING PARAFFINE OR OTHER BODIES FROM PETROLEUM.

SPECIFICATION forming part of Letters Patent No. 369,902, dated September 13, 1887.

Application filed April 11, 1887. Serial No. 234,384. (No model.)

*To all whom it may concern:*

Be it known that we, GEORGE AAB and  
SANFORD K. CAMPBELL, citizens of the United  
States, residing at Philadelphia, in the county  
5 of Philadelphia and State of Pennsylvania,  
have invented certain new and useful Im-  
provements in Methods for Extracting Par-  
affine or other Bodies from Petroleum; and  
we do hereby declare the following to be a  
10 full, clear, and exact description of the inven-  
tion, reference being had to the accompanying  
drawing, which forms part of this specifica-  
tion, in which the figure shows one form of  
apparatus by which our process may be prac-  
15 ticed.

This invention has relation to a method or  
process for extracting paraffine and other solid  
matters from crude or refined petroleum.

Crude petroleum contains from five to forty  
20 per cent. of paraffine or other solid matter,  
the percentage varying in different oils, but  
usually averaging about twenty-five per cent.

Refined petroleum contains from one to  
three per cent. of paraffine. The smaller the  
25 quantity the better illuminating qualities  
possessed by the oil.

The several different processes most gener-  
ally practiced for refining the oil have the  
same objection. They do not extract all the  
30 paraffine, and those processes that do extract  
the larger quantities are slow and expensive.

The object of this invention is therefore to  
extract paraffine and other solid bodies not  
alone from crude petroleum, but from petro-  
35 leums that have been refined by the usual and  
well-known methods.

Our invention therefore consists in the com-  
bination, with an apparatus for extracting solid  
matters from oil, of a strainer coated or satu-  
40 rated with paraffine.

In carrying our invention into practical op-  
eration we do not wish to confine ourselves to  
any special mechanism, as the same may be  
carried out in a variety of ways, one of which is  
45 illustrated in the accompanying drawing, in  
which—

A represents a cylindrical vessel, prefer-  
ably made of cast metal, which is suitably  
mounted, and provided with means for rotat-  
50 ing the same at a high speed.

B is an interior vessel, provided with numer-  
ous perforations, *b b*, &c.

C is a lining for the interior vessel, and is  
preferably made of a heavy closely-woven ma-  
terial, such as canvas.

D is a lid for the vessel A, and *a* is a cock  
by which the contents may be withdrawn.

The operation of the process is as follows:  
The cloth C is soaked in or coated with par-  
affine. Crude or refined petroleum is then  
60 placed in the interior vessel in any desired  
quantity, the cloth C preventing its escape  
through the perforations into the outer vessel,  
A. Power is then applied, and the vessels  
are rotated at from one thousand to four thou-  
65 sand revolutions a minute. The centrifugal  
force exerted by or rotary motion upon the  
body of the oil will cause the lighter portions  
to pass through the cloth C and perforated  
vessel B, while the paraffine and other solids  
70 will be retained within the vessel, being gen-  
erally found attached to the cloth C, from  
which they can be readily removed. Actual ex-  
periments have shown that over one per cent.  
of paraffine has been extracted from the very  
75 best oils as refined by the ordinary methods.

While we have described centrifugal force  
as applied for throwing the petroleum against  
or through the cloth, we do not wish to con-  
fine ourselves to that precise force, as we may  
80 use rotary motion within the body of the pe-  
troleum. For instance, we may use a station-  
ary tank supplied with a revolving dasher or  
screw, which will throw the petroleum from  
the center to the sides of the tank.

What we claim as new is—

The method of extracting paraffine or other  
bodies from petroleum, which consists in forc-  
ing the petroleum through a cloth previously  
coated or impregnated with paraffine, whereby  
90 the paraffine or other solids contained within  
the oil will be separated therefrom.

In testimony that we claim the foregoing we  
have hereunto set our hands this 2d day of  
April, 1887.

GEORGE AAB.

SANFORD K. CAMPBELL.

Witnesses:

L. M. LLOYD,

HENRY A. NEWBOLD.