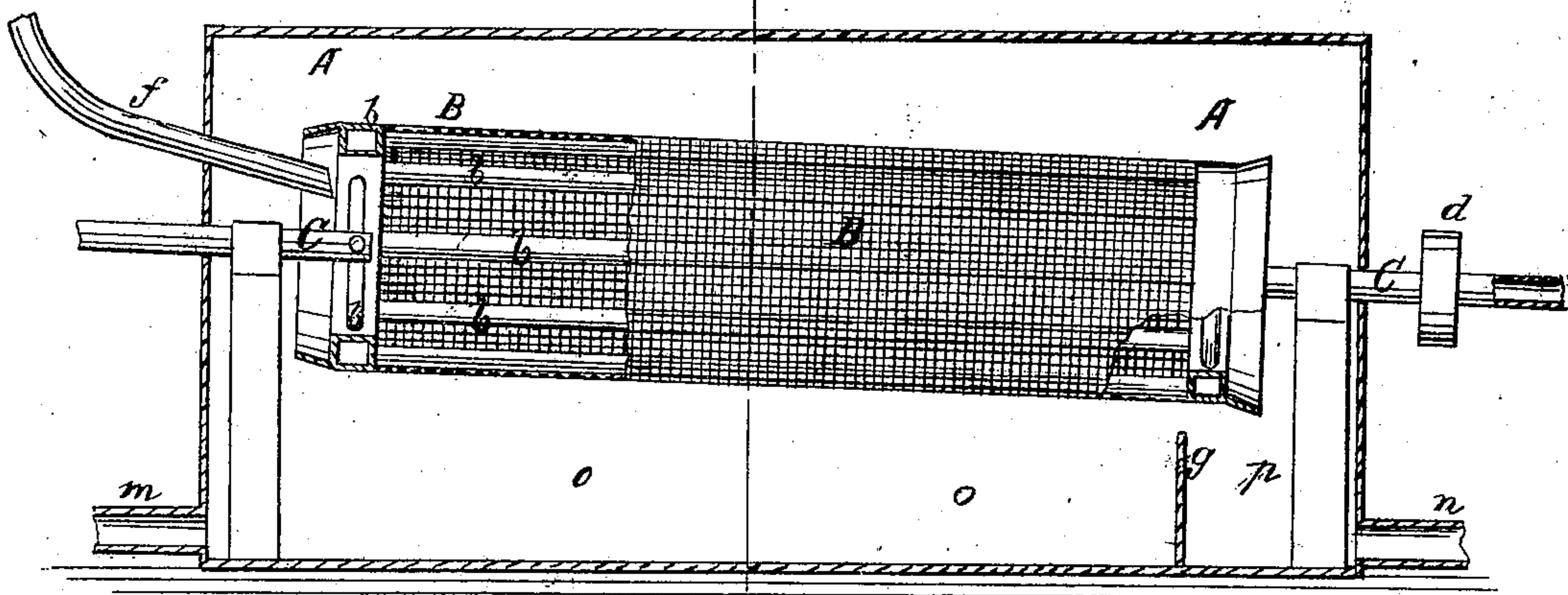


*J.E. Winant's Assig<sup>t</sup> to  
Josiah E. Winants & Jno W. Griffen's Imp<sup>l</sup> in Appa.  
for Manuf. of Turpentine.*

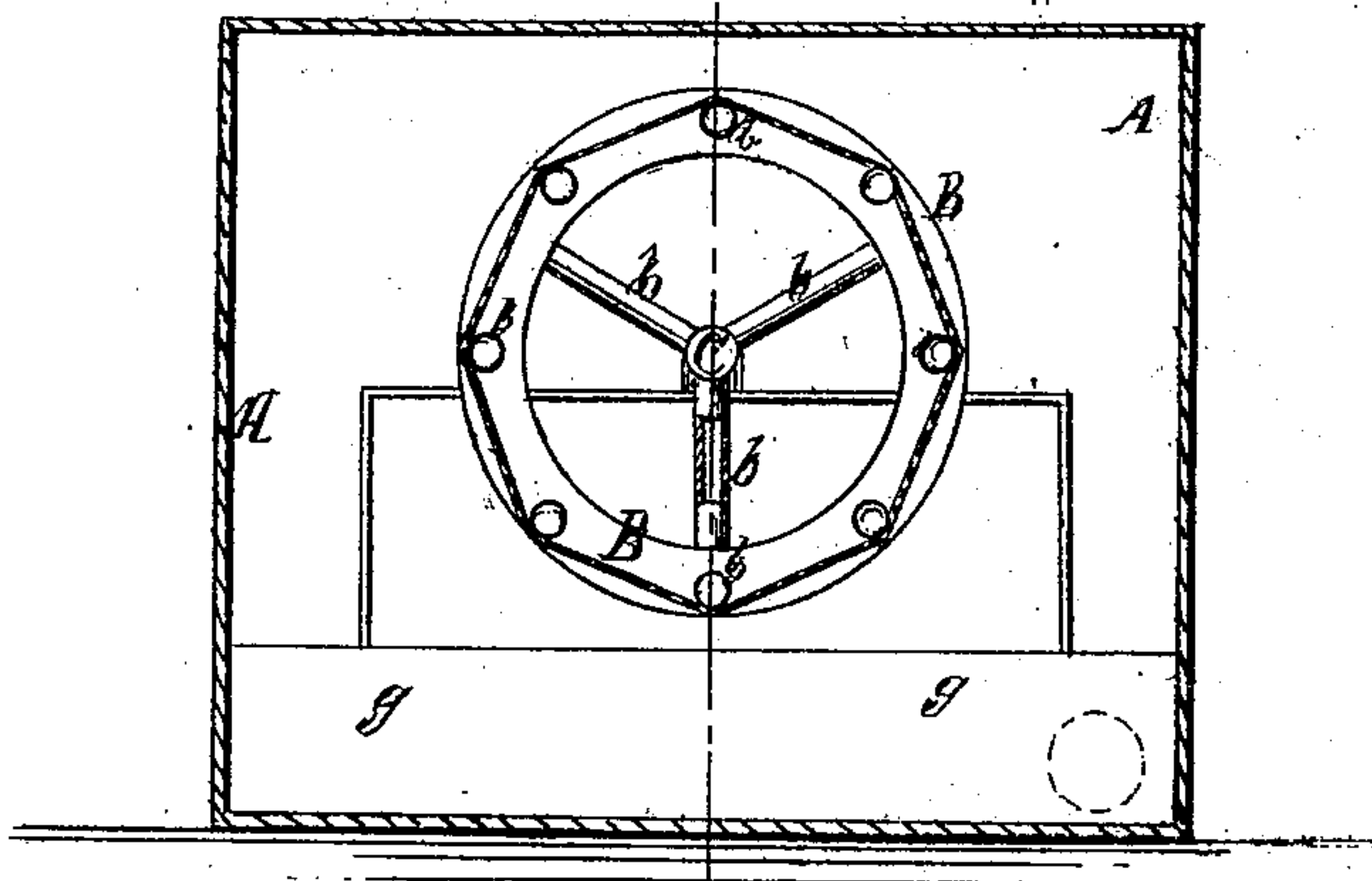
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*Fig. 1.*



*Fig. 2.*



*Witnesses*

*A. Scott,  
John McIntyre*

*Inventor.*

*J. E. Winants,  
by his att.  
J. M. C. Carter*



# United States Patent Office.

JOSIAH E. WINANTS, OF BROOKLYN, NEW YORK, ASSIGNOR TO HIMSELF  
AND JOHN F. GRIFFIN.

*Letters Patent No. 72,254, dated December 17, 1867.*

## IMPROVED APPARATUS FOR MELTING AND STRAINING CRUDE TURPENTINE.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOSIAH E. WINANTS, of city of Brooklyn, county of Kings, in the State of New York, have invented certain new and useful "Improvements in Apparatus for Melting and Straining Crude Turpentine;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to a new and useful improvement in apparatus for melting and straining the crude material in the manufacture of turpentine. Previous to my invention numerous contrivances have been suggested and used, (all more or less complicated, and subject to serious objections in practice,) to effect the partial distillation or extraction from the crude material or crude turpentine, in which the material was either discharged directly from the barrel into a heating-chamber, provided with stationary strainers, from whence it passed to other straining and heating-devices, or was emptied from the barrels into a heating-hopper, from which it passed, as it melted, to a series of strainers and superheaters. But in all such contrivances there is much complication of mechanism, and the necessity for much manual labor in keeping the strainers and other parts of the apparatus in working order.

My invention has for its object to provide a simple and economic apparatus, with which the crude material may be melted and strained of all dirt, chips, &c., and which shall be automatic in its operation; and to these ends my invention consists in the employment of a cylindrical sieve or strainer, provided with steam-radiators, and mounted so as to rotate on an oblique axis within a suitable receptacle, in such manner that the crude material may be run into it at one end, and the chips and dirt discharged at the other end, while the liquid portion is strained through the body of the cylinder, all as will be hereinafter more fully explained.

To enable those skilled in the art to make and use my invention, I will proceed to describe the construction and operation of my improved apparatus, referring by letters to the accompanying drawings, in which—

Figure 1 is a longitudinal section of the apparatus, and

Figure 2 a cross-section of the same.

In the different figures the same parts are designated by the same letters of reference.

A is a rectangular tank, within which is mounted, in a slightly inclined (or oblique) position, a rotatory cylindrical sieve or screen, B, which may be formed of wire gauze, or in any suitable manner, and the framework *b b* and shaft C of which are hollow, to admit of a supply thereto of steam. The shaft C is mounted in suitable bearings in each end of the tank or receiver A, and is provided with a pulley, *d*, by which it is to be rotated through the medium of a driving-belt. The ends of shaft C must of course be fitted in suitable stuffing-boxes, so that a supply of steam may be supplied to said shaft, (as indicated by the arrows,) and exhausted therefrom. The frames *b' b* of the sieve B are made hollow, as shown, and communicate with the hollow shaft C, so that they, together with said shaft, operate as steam-radiators to heat the interior of the cylinder B, (as also the whole interior of the closed tank A,) and melt out the crude material. *f* is the pipe, through which the crude material is run into the higher end of the melting and straining-cylinder B, and this supply-pipe *f* may be fed from a hopper or otherwise. The tank or receiver A is divided by a vertical partition, *g*, into two compartments, one, *o*, extending along immediately beneath the cylinder B, the other, *p*, beyond the lower end of said cylinder, in such a manner that while the former compartment shall receive the liquid material that percolates through the cylinder B, the latter shall receive the dirt, chips, &c., which, being unable to pass through the perforations of the cylinder, are carried along during its entire length and tumbled out at the end of said cylinder. Each of the compartments of the tank A is provided with an outlet, (*m* and *n*,) through which the contents may be removed at pleasure.

The operation of my improved apparatus may be thus explained: The enclosed cylinder B being put into motion, and its hollow shaft C and framework *b b* supplied with steam, a supply of the crude material is furnished through the pipe *f*, from whence it descends into the open upper end of the perforated cylinder B, within which it is heated (and melted) and thoroughly strained, the liquid portion falling down, during the entire length of the cylinder, into the receptacle *o*, and the chips and other foreign substances being tumbled out at the lower end of the cylinder into the receptacle *p*.

It will be seen that, by means of this simple and economic apparatus, the crude material will be rapidly and thoroughly melted and strained.

In lieu of steam, some other heating-medium may be applied to the cylinder, but I have found it to work successfully with steam.

Of course the details of construction may be varied very much, without departing from the spirit of my invention, the gist of which rests in the idea of the perforated radiator, rotatory screw, or straining-cylinder.

The proportions of the parts, temperature of steam, &c., will be regulated by the experienced manufacturer without difficulty.

The cylinder B should be inclined sufficient only to effect the passage or tumbling of the dirt and chips gradually toward and not at its lower end, while the liquid portion of the material fed into the cylinder will be all melted and strained out.

Having described my improved apparatus for melting and straining crude turpentine, so that one skilled in the art can make and use it,

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

The employment of a rotatory heating and straining-cylinder, substantially in the manner and for the purposes set forth.

In testimony whereof, I have hereunto set my hand and seal, this 24th day of October, 1867.

J. E. WINANTS. [L. S.]

Witnesses:

WM. H. BISHOP,

A. DE LACY.