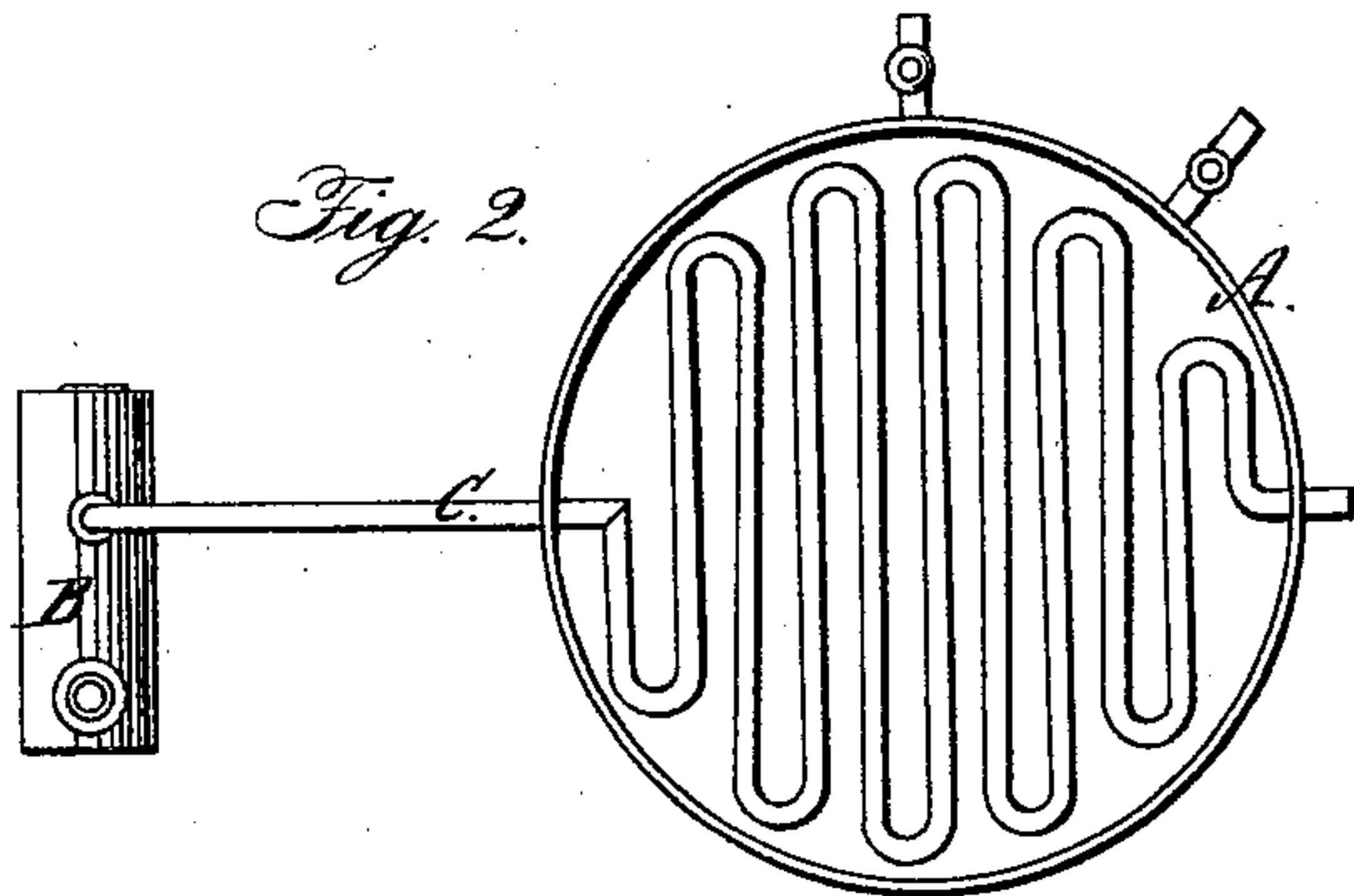
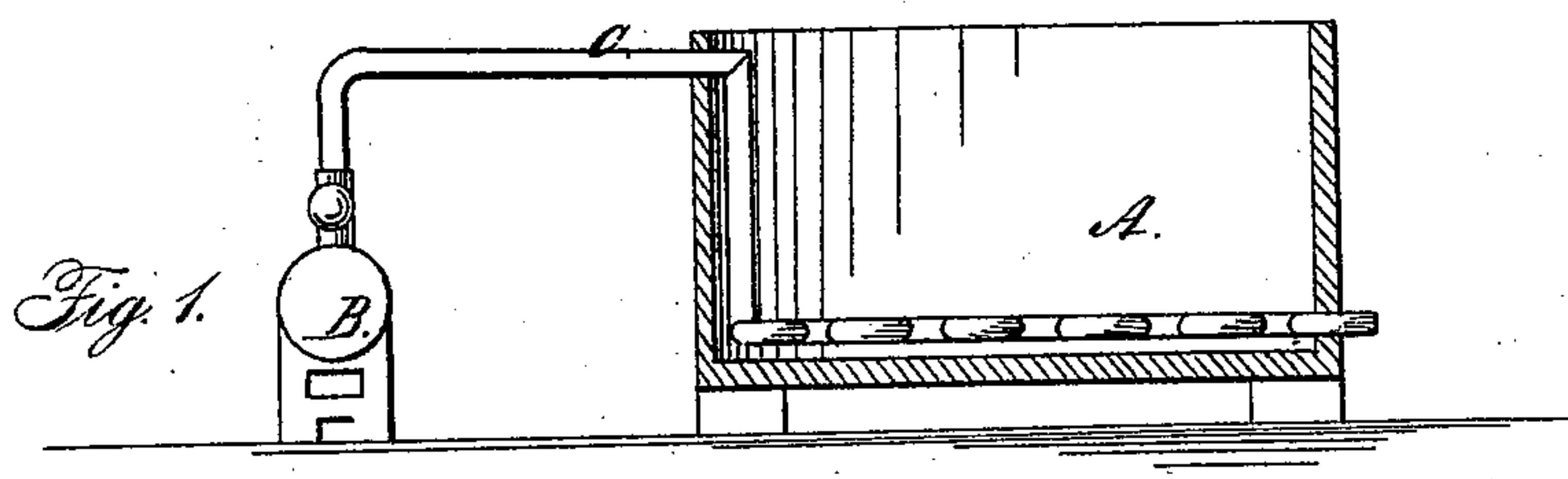


P. G. FINN.  
Refining Oils.

No. 64,855.

Patented May 21, 1867.



**Witnesses:**

*Thos. Truscke*  
*J. A. Service*

**Inventor:**

*P. G. Finn*  
*Per Munroe*  
*Attorneys*

# United States Patent Office.

P. G. FINN, OF ERIE, PENNSYLVANIA.

*Letters Patent No. 64,855, dated May 21, 1867.*

## IMPROVEMENT IN PUTTING UP OILS IN CASKS, &c.

*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, P. G. FINN, of Erie, in the county of Erie, and State of Pennsylvania, have invented a new and improved Method of Preparing and Packing Oil, and that the following description, taken in connection with the accompanying drawings, hereinafter referred to, forms a full and exact specification of the same, wherein I have set forth the nature and principles of my said improvements, by which my invention may be distinguished from all others of a similar class, together with such parts as I claim and desire to have secured to me by Letters Patent.

This invention relates to a new and improved method of preparing and packing coal oil for transportation and storage.

Barrels containing coal oil are, as is well known, liable to leak by the expansion of the oil, owing to the latter being barrelled at a low temperature, and expanding when exposed to the heat of the sun, or when stored in a place the temperature of which is higher than that of the oil when barrelled. For instance, if petroleum be barrelled at a temperature of 50° Fahrenheit, and afterwards heated to 110°, the expansion will be about two and a half (2½) gallons in a cask of fifty (50) gallons. This expansion exerts a tremendous pressure in the barrel, forcing it apart, opening the joints, breaking the linings, and stretching the hoops, causing great loss by leakage. The driving of the hoops further on the barrel will not remedy the difficulty in an appreciable degree, on account of the lining of the barrel being broken or ruptured. Various plans have been devised to obviate this difficulty, but without success, and the loss by leakage is estimated to be from fifteen (15) to twenty (20) per cent.

My invention consists in heating the oil, preparatory to the placing of it in barrels, to 110° Fahrenheit, which is as high a temperature as it will ever be exposed to, and the oil in this heated state is placed in the barrels and the latter instantly securely sealed or closed at the bung. As the oil cools it contracts, leaving a partial vacuum in the barrels, and when the oil expands in the barrels under a high temperature, there is abundant space for expansion, and instead of an internal pressure within the barrels, there is an external or outside atmospheric pressure which has a tendency to keep the parts of the barrels together. In the accompanying sheet of drawings—

Figure 1 is a side sectional view of the means I employ for carrying out my invention.

Figure 2, a plan or top view of the same.

The apparatus I employ for heating the oil consists of a large tank, A, to contain the oil, a steam boiler, B, and a pipe, C, extending from the boiler within the tank, and coiled or bent in serpentine form at the bottom of the same, the oil being heated by the passage of the steam through the coiled or serpentine portion of the pipe C in the tank.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent—

The barrelling and hermetically sealing of coal oil in a heated and expanded state, substantially as and for the purpose set forth.

The above specification of my invention signed by me this 30 day of March, 1867.

P. G. FINN.

Witnesses:

GEO. KELLOGG,  
WM. MARSH.