

W. H. YOUNG.
PREPARING PETROLEUM FOR LUBRICATING.
No. 62,798. Patented Mar. 12, 1867.

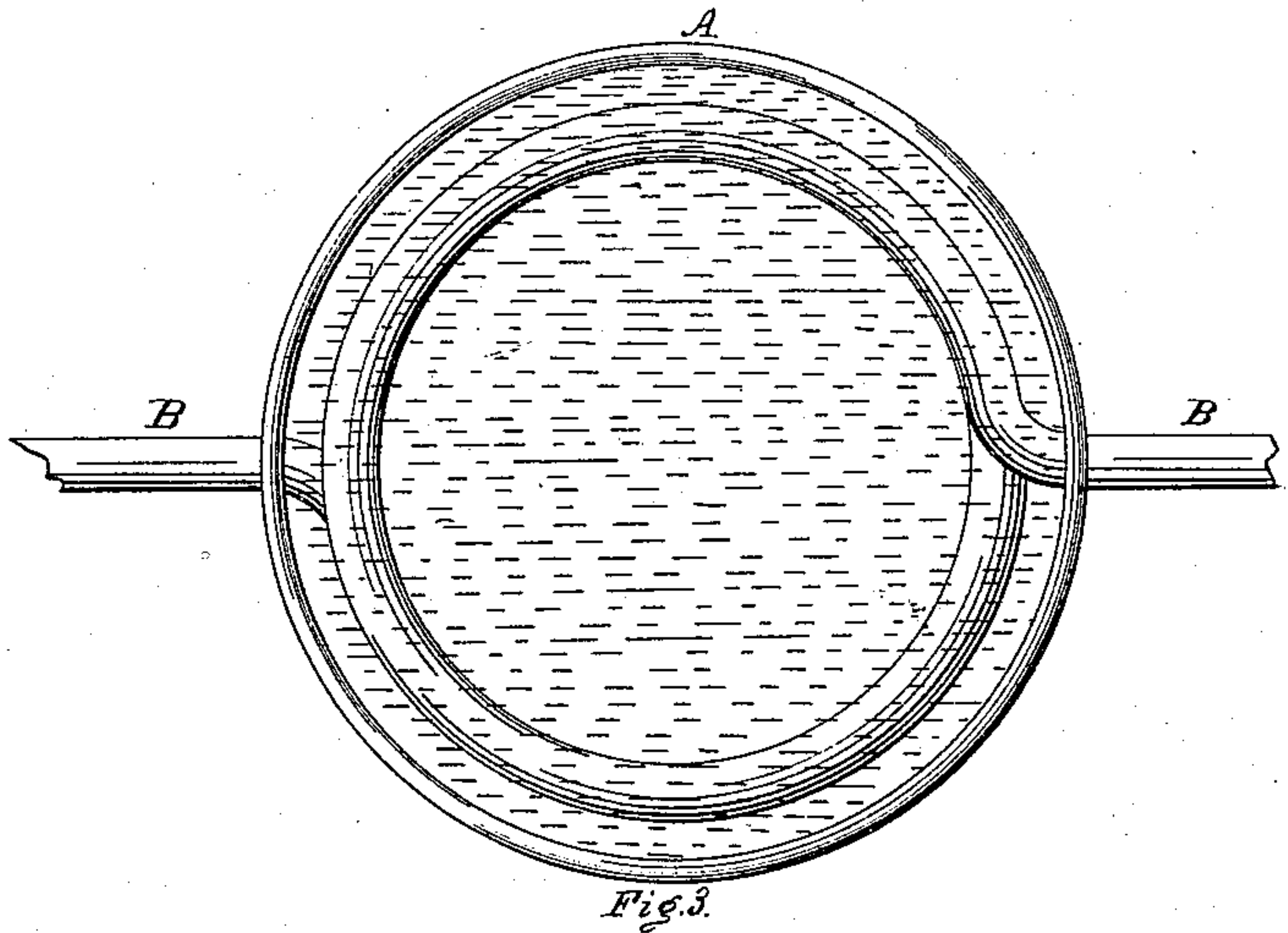


Fig. 3.

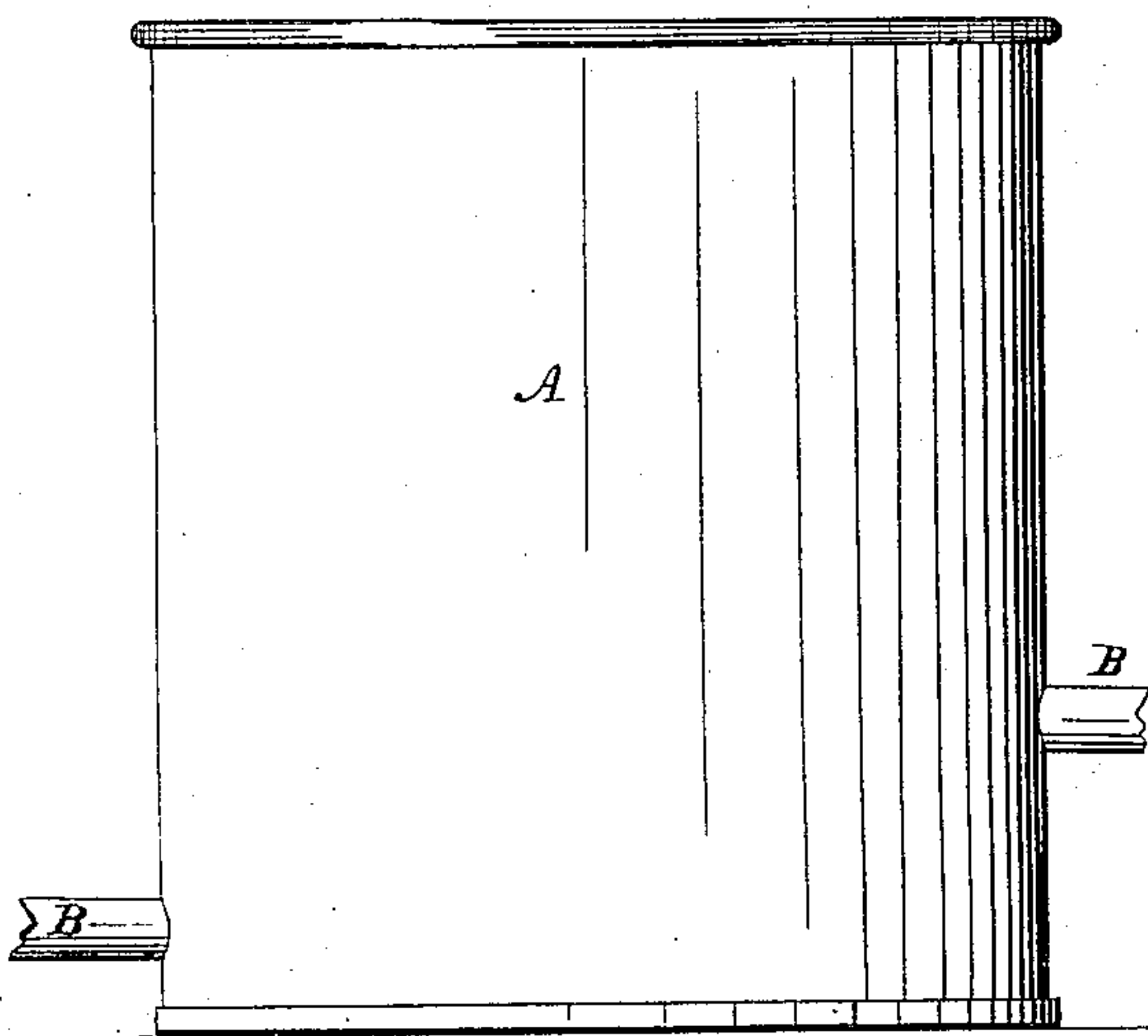


Fig. 1.

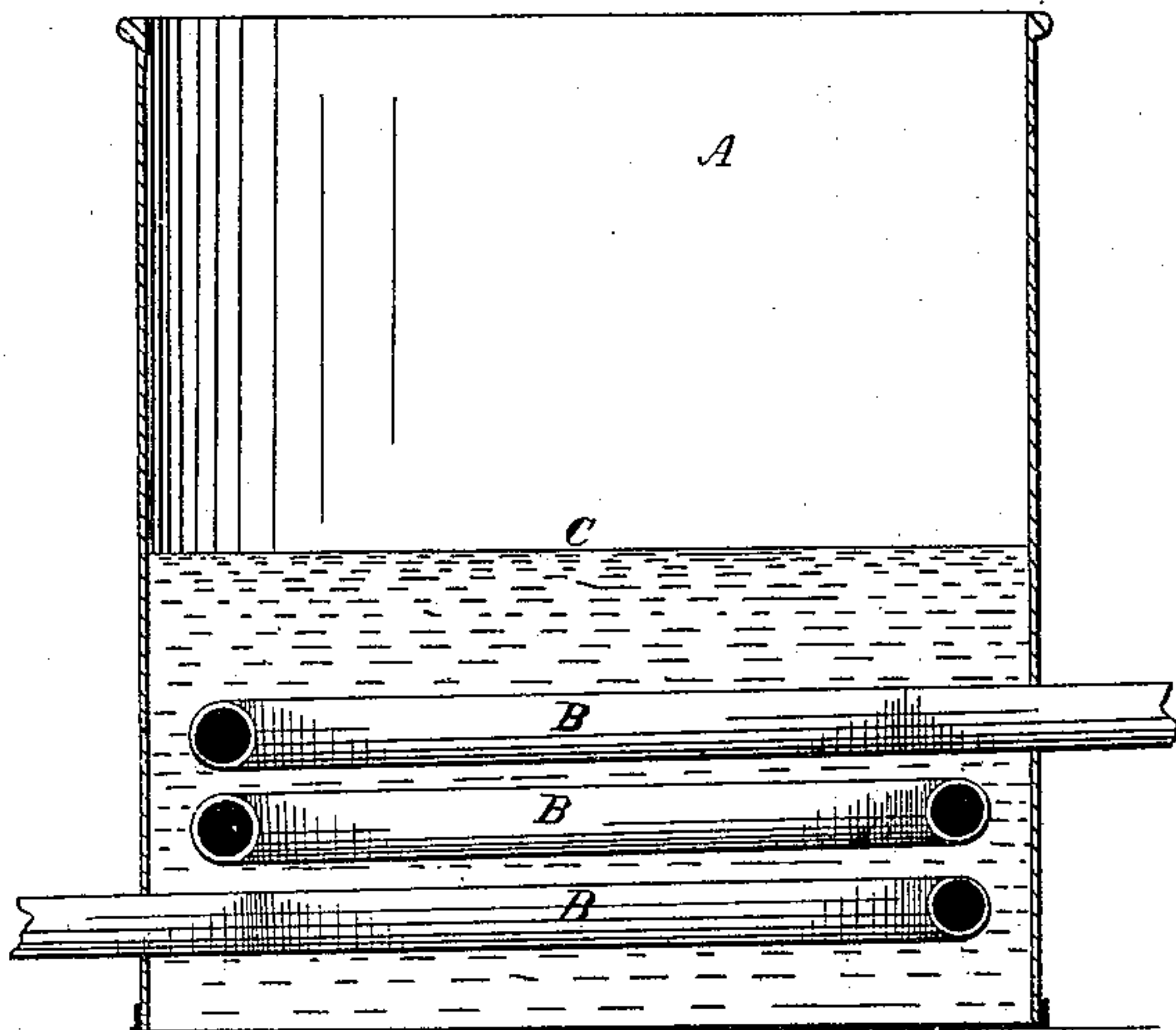


Fig. 2.

Witnesses:

J. J. Parker
A. Bloodgood

Inventor:

W. H. Young

United States Patent Office.

W. H. YOUNG, OF ATHENS, OHIO.

Letters Patent No. 62,798, dated March 12, 1867.

IMPROVEMENT IN PREPARING PETROLEUM FOR LUBRICATING.

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, W. H. YOUNG, of Athens, in the county of Athens, in the State of Ohio, have invented a new and improved Method of Cleansing Petroleum and other lubricating oils; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon. In the drawings—

Figure 1 is a side elevation.

Figure 2 is a central vertical section.

Figure 3, a plan view.

This invention consists in cleansing petroleum and other lubricating oils by means of heated water in a tank, in the manner hereinafter fully described.

A represents a tank of metal or other suitable material, of circular or other convenient form, and of any desirable size. B represents a metallic pipe, introduced into the tank A near its lower end, arranged spirally within it in any required number of coils, and passing out of it at any convenient point. C represents the surface of a stratum of water, situated in the lower part of the tank, and sufficient in quantity to cover the coils of the pipe. The oil to be cleansed rests in suitable quantity upon the water. From this description it will be perceived that when steam is passed through the pipe B, the surrounding water is heated, and, in turn, that portion of the oil immediately in contact with the water receives a portion of its caloric, and ascends to the surface, leaving whatever foreign matter it may contain to be taken up by the water. One portion of the oil having risen, of course another portion must descend, which coming also in contact with the heated water, in its turn rises, leaving behind also its impurities. In this way the whole body of oil is put in circulation and becomes purified, the water receiving all the matter gotten rid of by the oil.

Attempts have been made to accomplish the same result by pouring salt water over the surface of oil, which passing rapidly down through it, was supposed to be capable by virtue of its superior gravity of cleansing it of all matter held in suspension. It is found, however, that the work is but imperfectly done in this way. Scalding brine has also been poured upon oil for the purpose of heating it, and at the same time of clearing it of suspended matter as in the former instance, but it is found that by this method the surface oil is overheated and thus injured, while the brine, being cooled in its downward passage, so far from cleansing the lower strata of oil, actually increases their filth by adding to it that brought from above. Coils of steam pipe passing directly through the oil, have also been experimented with and found to produce an overheating, and a consequent injury of part if not all the oil. By my method, however, the oil is not liable to such detriment, as it does not communicate in any part with the steam pipes, and the heat is tempered by the water before reaching it.

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

The cleansing of oil, by means of an underlying body of heated water, substantially as described.

This specification signed and witnessed this 18th day of August, 1866.

W. H. YOUNG.

Witnesses:

J. F. MAHON,

W. H. HURST.