

JOHN G. GUENTHER.

Improvement in Apparatus for Rectifying Spirits, etc.

No. 122,115.

Fig. 1.

Patented Dec. 26, 1871.

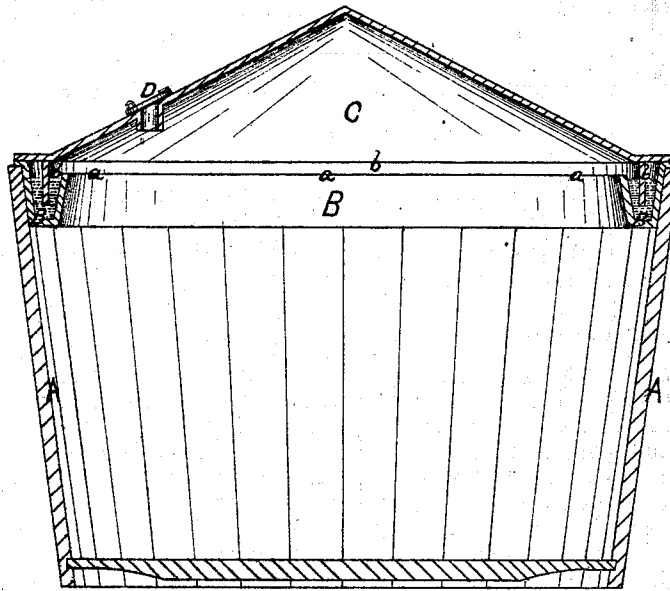
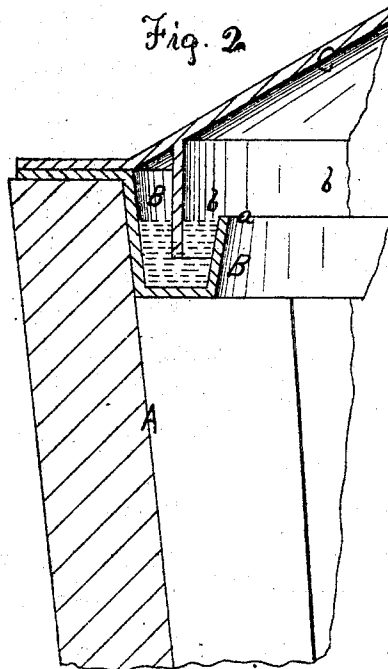


Fig. 2.



WITNESSES.

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UNITED STATES PATENT OFFICE.

JOHN GODFREY GUENTHER, OF BUFFALO, NEW YORK.

IMPROVEMENT IN APPARATUS FOR RECTIFYING SPIRITS, &c.

Specification forming part of Letters Patent No. 122,115, dated December 26, 1871.

SPECIFICATION.

I, JOHN GODFREY GUENTHER, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in "Rectifiers," of which the following is a specification:

Nature of the Invention.

The invention relates to the tubs or vats used in rectifying high-wines, &c.; and consists in forming a gutter or channel near the top and entirely around the tub or vat in combination with a conical or concave-shaped cover provided with a downwardly-projecting lip or flange which sets into the gutter, so that the steam from the liquor, condensing upon the cover, will run down and be caught in the gutter and thereby form a perfect "water-joint," as hereinafter fully described.

General Description.

In the drawings, Figure 1 is a vertical section of the whole. Fig. 2 is an enlarged sectional view of the joint.

A represents a rectifying-tub or vat provided with an annular gutter or channel, B, extending around the inside and near the top of the tub, and "luted" thereto to render the connection perfect, with the inner edge *a* made lower than the rim of the tub, for a purpose to be presently explained. C is a cover of concave or conical shape, as shown, its edge resting on the tub, and provided on its inner side with a vertical flange, *b*, which projects into the channel B and reaches nearly to the bottom. When this channel or gutter B is filled either with water or liquor it forms what is known as a water-joint or "seal," as clearly shown in Fig. 2, and entirely obviates the dependence on the outer joint between the sides and cover, which, from the unequal expansion of the two, it is impossible to keep tight. The liquor to be rectified is run into the tub through an opening, D, in the cover.

The vapor or volatile exhalations of the warm liquor as it rises upward is condensed against the cool cover C and runs down against the projecting lid *b* into the gutter B, keeping a constantly

water-packed joint, by which means none of the volatile portions escape into the air, as is common with other rectifiers. The overflow of the gutter is provided for by making the inner rim *a* lower than the outer, as before described, so that when the gutter is filled it overflows on the inside into the vat A.

By this device I obviate the defect common to most rectifying-stills, viz., of imperfect joints, by which much of the spirit escapes, and is, consequently, lost. I not only effect a considerable saving, but avoid the deleterious presence of intoxicating vapor in rectifying-rooms.

I am aware of the patent granted to F. HaecK December 4th, 1866, in which an inside rigidly-attached trough is secured to catch condensed fluid produced on the inside of the cover and convey the same out through an opening into a proper vessel. Such I do not claim.

In my invention the inside trough is removable, and is formed separately from the vessel, and has a flange which rests upon the top of the rectifying-vessel, while the inside wall *a*, being of a less height than the outside, causes the condensed fluid conducted therein to escape over the low wall *a* back into the vessel.

It will also be noticed that my cover is readily removed, it not being connected with complicated discharge-pipes.

Claim.

I claim as my invention—

In a rectifying-vat, a removable cover, C, provided with the vertical flange *b*, in combination with the annular gutter B, having the inner edge *a* lower than its outer edge, substantially as and for the purpose set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN G. GUENTHER.

Witnesses:

J. R. DRAKE,
C. N. WOODWARD.

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