Sept. 28, 1926. 1,601,571

W. KNAPP

COOLER BOX

Filed April 7, 1925

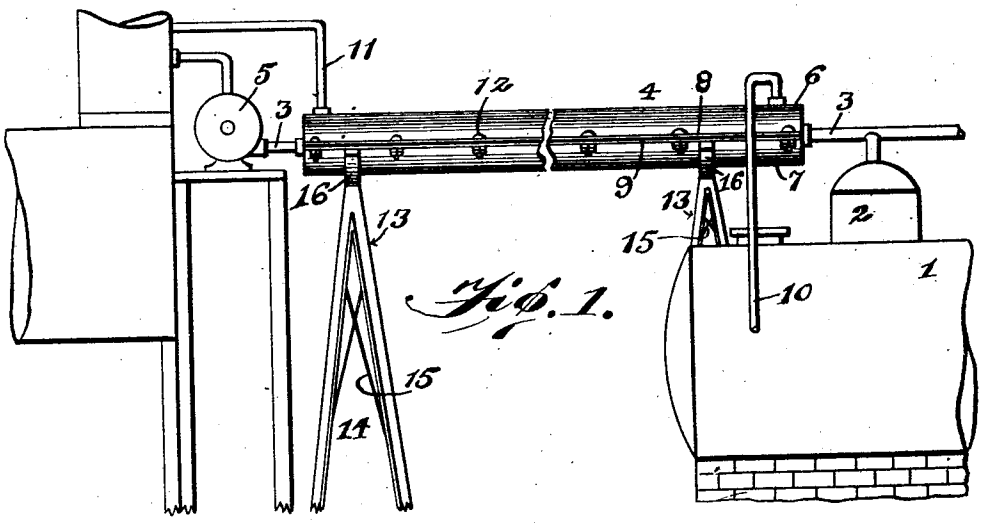


Fig. 1.

Fig. 2.

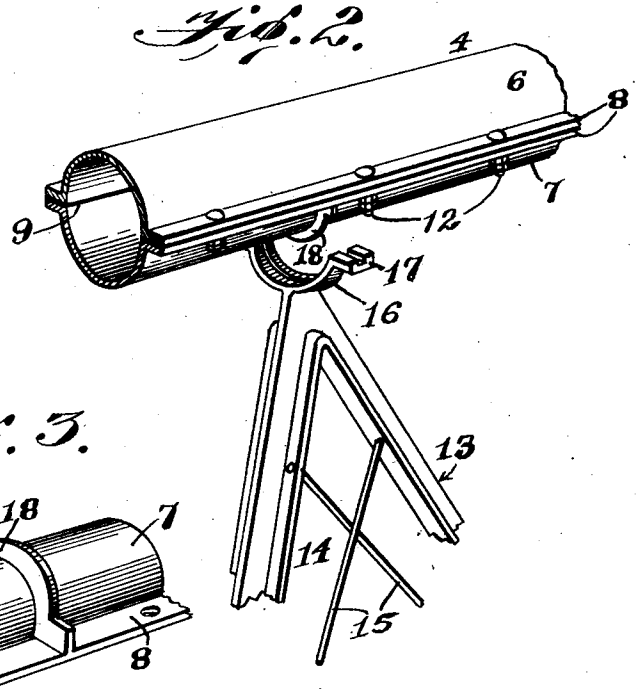
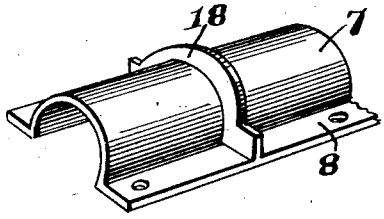


Fig. 3.



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UNITED STATES PATENT OFFICE.

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COOLER BOX.

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This invention relates to a distilling apparatus, and more particularly to a cooler box structure therefor.

The object of the invention is the provision of simple and efficient means for cooling the vapors before they enter a pump, thereby preventing the pump from getting overheated or too hot. I find from experience that this invention is of great value in handling oils.

With this and other objects in view, my invention comprises certain novel combinations, constructions and arrangements of parts as will be hereinafter described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

In the drawings:

Figure 1 is a view in elevation of an apparatus constructed in accordance with the present invention, showing the manner in which one form of my device may be constructed.

Figure 2 is a fragmentary perspective view of the preferred form of my invention.

Figure 3 is an inverted fragmentary perspective view of one of the sections of the cooler box.

This apparatus is generally shown in my co-pending application Ser. No. 701,533, "a steam-jacketed still," and it will not be necessary for me to describe in detail the apparatus shown in said co-pending case, but it is to be understood that the still 1 is provided with dome 2 from which extends pipe 3, which pipe 3 extends through the cooler pipe or casing 4. Pipe 3 is connected, at one end, to the pump 5, and it is to cool the vapors coming from the still 1 to the pump 5, that I have interposed in combination my cooler box structure.

My cooler box structure may be a pipe or a casing, constructed in accordance with the present invention, but in the drawings, I have illustrated the preferred embodiment as a sectional casing; this sectional casing includes the upper section 6 and the lower section 7. The casing is closed at both ends, with pipe 3 extending through said ends.

Each section is preferably provided with flanges 8 and interposed between these flanges is a suitable packing 9 for preventing water from leaking out of the box, which water is supplied through the inlet 10 and is drained or otherwise discharged from box or casing 4, through the outlet pipe 11. Ordinary bolts 12 extend through the flanged edges of the sections, holding the same tight together.

To support the cooler box structure, I preferably provide piers 13. Each pier comprises an angle inverted V-shape body 14 braced by guy rods 15. On the upper end of each of the bodies 14 is a U-shape saddle 16 that is provided with outwardly extending ears 17, which ears bear against the flanges 8 on the lower section 7. The saddle 16, and its ears 17 are provided with a receiving groove, which groove receives the depending flange or rib 18 formed upon section 7. This groove and rib structure lock the pier and box together quickly, obviating the necessity of riveting or bolting the parts together. As soon as the operator drops the box into the saddles 16, it will cause the ribs to settle in the grooves of the saddles, whereupon my cooler box structure will be efficiently retained in its given position with respect to the still and the pump.

It is to be understood that my structure is to cool the vapors, so that said vapors will not heat the pump so hot, and that this invention does not deal with a condenser in any sense.

While I have described the preferred embodiment of my invention, and have illustrated the same in the accompanying drawings, certain minor changes or alterations may appear to one skilled in the art to which this invention relates, during the extensive manufacture of the same, and I therefore, reserve the right to make such alterations or changes as shall fairly fall within the scope of the appended claims.

What I claim is:

1. In an apparatus of the class described, the combination of a pier provided in its upper end with a saddle, said saddle provided with ears, said saddle and ears provided with a receiving groove, a casing provided on its under face only with a rib, and said rib seated in said groove of said saddle and ears.

2. In an apparatus of the class described,

the combination of a pier comprising an inverted V-shape body provided with guy rods, said pier provided at its upper end with a grooved saddle and ears, a sectional casing, each section of said casing provided with flanges, one section of said casing provided with an outstanding rib formed on its outer face and on its flanges, and said rib seated in the groove of said saddle and ears, substantially as shown and described.

In testimony whereof I hereunto affix my signature.

WILLIAM KNAPP.