

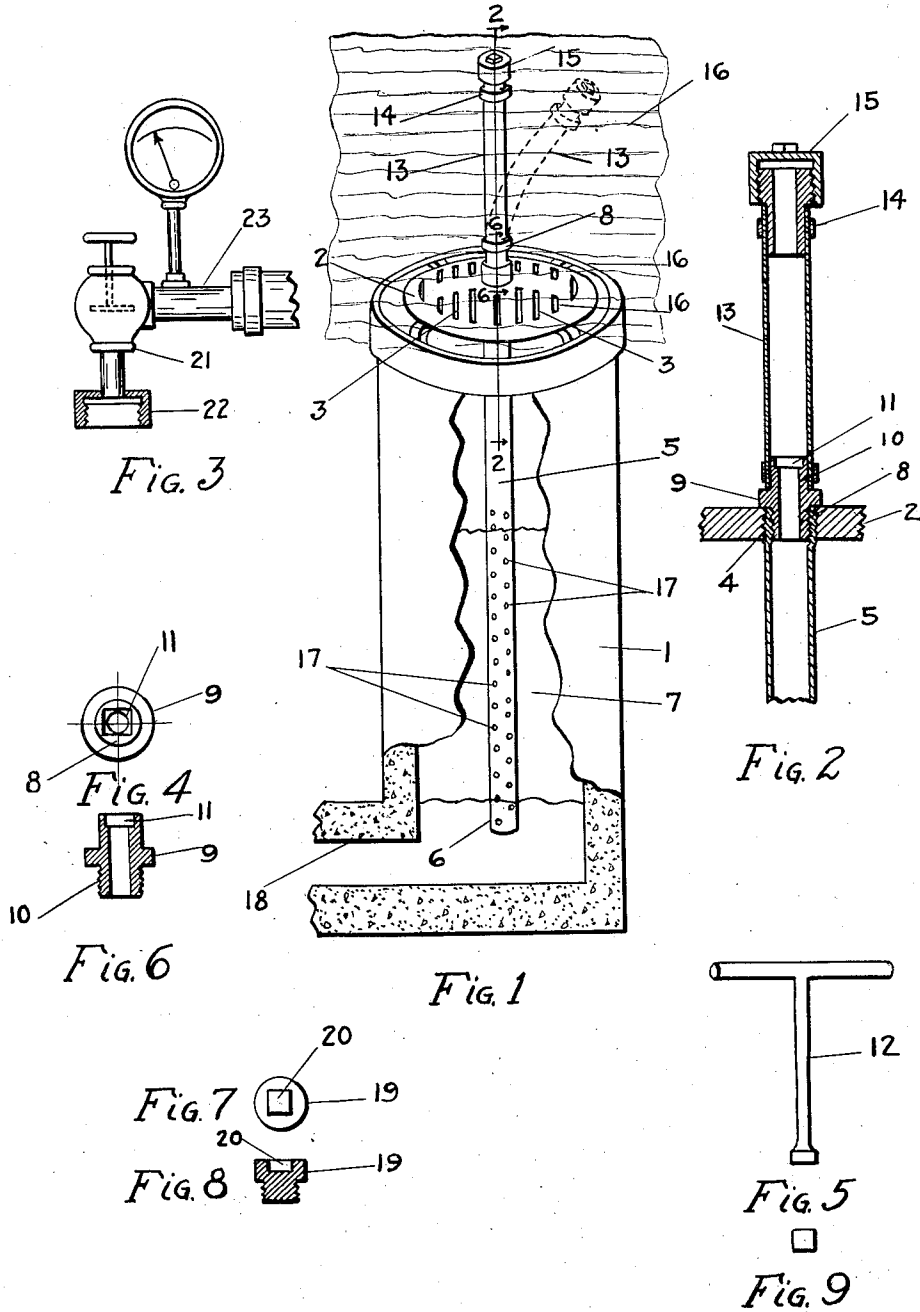
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APPARATUS FOR CLEARING CESSPOOLS OF ICE

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APPARATUS FOR CLEARING CESSPOOLS
OF ICE

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10 Claims. (Cl. 182—2)

This invention relates to a method and apparatus for clearing cesspools of ice and an important object is to provide ready means for introducing live steam below any ice formed within the cesspool at inaccessible points and thereby melting the ice and freeing the cesspool of the frozen obstruction.

Another object is to provide an external flexible locating tube attached to the cesspool cover and adapted to be left on the surface of the ground and to become imbedded in accumulated snow or ice in cold climates during the winter season, whereby upon breaking through the snow and ice and finding the flexible tube the cesspool may be readily located and steam fed therein below the ice accumulation.

Another object is to provide connecting means for readily attaching and detaching the flexible locating tube from the cesspool cover.

Still another object is to provide depending tubular means for diffusing the steam in the interior of the icy area and means for permitting the water from the melted ice adjacent to the depending tube within the cesspool to enter the tube and pass therefrom, thereby preventing clogging.

With these and other objects in view the invention consists in the novel features of construction, combination of elements and arrangement of parts as hereinafter described and pointed out in the appended claims.

In the accompanying drawing,—

Figure 1 is a vertical elevation of a cesspool having its wall broken away so as to show the interior, and showing a preferred form of my invention applied thereto.

Figure 2 is a vertical cross-section on the line 2—2 of Fig. 1, showing the locating tube and attaching means.

Figure 3 is a view of the connection to the steam pipe line.

Figure 4 is a plan view of the key-plate of the attachment coupling.

Figure 5 is a view of the tool for turning the key-plate of the attachment coupling.

Figure 6 is a vertical cross-section of the locating hose coupling on the line 6—6 of Fig. 1.

Figure 7 is a plan and Figure 8 is a vertical cross-section of the closure plug for the coupling

(Fig. 2), when the locating hose is disconnected.

Figure 9 is a plan of the tool head for operating the coupling key-plate (Fig. 4).

In the drawing 1 designates a cesspool provided at its top with a cover 2 having inlet openings 3 and a central circular opening 4 therein. Within

the central opening 4 is screwed an elongated metal inlet tube 5 (Fig. 1), which remains permanently attached to the cover and has its lower end 6 extending below or into the ice 7, as shown in Fig. 1. In the upper end of the tube 5 is secured a tubular coupling member 8 provided with a central flange 9 having an extension 10 leading upwardly therefrom and provided at its upper end with a rectangular key-way 11 (Figs. 4 and 5), adapted to receive the lower rectangular end of the tool 12 shown in Figs. 5 and 6, when being attached or detached from the cover 2. Attached to the extension 10 is a rubber locating tube 13 having secured to its upper end a tubular terminal member 14, which is provided with a closure cap 15. The locating tube 13 is adapted to extend into the layer of snow or ice 16 above the cover 2 and remain there until it is desired to clear the cesspool of ice. This locating tube 13 provides a simple and very efficient means for readily locating the cesspool, which is an important consideration in saving time and labor. Further the locating tube 13 being flexible, durable and relatively long will lie in the snow or ice without hindrance by motor cars or other vehicles passing over it and may be readily located near the cesspool cover 2.

The depending inlet tube 5 is provided with a series of spaced and staggered openings 17, which serve as means to direct and convey steam through the entire length of the vertical center of the ice 7 so as to permeate it thoroughly within its mass, thereby hastening its melting and also providing ready drainage of the water from the melted ice to the outlet pipe 18 at the bottom of the catch basin 1 and thus prevent clogging. This is an important feature especially in cold climates where accumulations of water in a cesspool rapidly freeze, causing it often to become choked with ice, which may result in entirely closing the outlet pipe and consequent overflow to the street of additional water entering therein. Thus the distribution of steam through the staggered openings 17 of the inlet tube 5 directly to the core of the ice 7 results in melting the ice more rapidly than by applying steam at other points, for example above or below the ice.

In the warm season the locating tube 13 with the attachment coupling 9 is detached and a threaded closure plug 19 with a tool socket 20 substituted therefor and operated by the tool 12, is screwed into the threaded opening 4 of the cover 2.

In clearing the cesspool of ice the closure cap 15 is removed from the end of the locating tube

13 and a steam line connector employed (Fig. 3) which is provided with an attaching cap 22 adapted to be connected to the locating tube 13 and steam entering by the steam pipe 23 flows through the locating tube 13 to the depending inlet tube 5, passes through its numerous openings 17 to the core of the ice 7, which diffuse the steam throughout the entire length of the ice, as well as to the area below. By this means the steam is effectively applied to the ice both within and below its mass, the water from the melted ice passing freely through the openings 17 down the inlet tube to the bottom of the cesspool.

While I have shown a preferred embodiment of my invention it is evident that changes and modifications in the construction herein shown and described may be made that would come within the scope thereof and it is not intended, therefore, to limit the invention to the precise details of constructions shown.

I claim:—

1. Apparatus for clearing a cesspool of ice including a cover for the cesspool, and an external flexible locating tube leading thereto and adapted to serve as means for locating the cesspool when the said tube is imbedded in ice adjacent thereto and for conducting steam to the interior of the said cesspool.

2. Apparatus for clearing a cesspool of ice including a cover for the cesspool, an external flexible locating tube leading thereto and adapted to serve as means for locating the cesspool when the said tube is imbedded in ice adjacent thereto and for conducting steam to the interior of the said cesspool, a terminal member at its free end, and a detachable closure cap attached thereto.

3. Apparatus for clearing a cesspool of ice including a cover for the cesspool, an external flexible locating tube leading thereto and adapted to serve as means for locating the cesspool when the said tube is imbedded in ice adjacent thereto and for conducting steam to the interior of the said cesspool, and means for attaching and detaching the flexible tube from the said cover.

4. Apparatus for clearing a cesspool of ice including a cover for the cesspool provided with an opening therein, an external flexible locating tube leading to the said opening and adapted to serve as means for locating the cesspool when the said tube is imbedded in ice adjacent thereto and for conducting steam to the interior of the said cesspool, and means for attaching and detaching the flexible tube from the opening in the said cover comprising a tubular coupling member inserted in the said opening and provided with a centrally disposed flange having a depending threaded portion secured in the said cover.

5. Apparatus for clearing a cesspool of ice including a cover for the cesspool provided with an opening therein, an external flexible locating tube leading to the said opening and adapted to serve as means for locating the cesspool when the said

tube is imbedded in ice adjacent thereto and for conducting steam to the interior of the said cesspool, and means for attaching and detaching the flexible tube from the opening in the said cover, comprising a tubular coupling member inserted in the said opening and provided with a centrally disposed flange having an upwardly extending threaded portion leading therefrom and provided at its upper end with a rectangular key-way.

6. Apparatus for clearing cesspools of ice including a cover for the cesspool provided with a central opening therein, and means for distributing steam within the cesspool comprising a depending inlet tube inserted in the said opening and leading into the center of the cesspool and provided with a series of spaced and staggered openings therein, whereby steam introduced to the said tube may be directed to the core of any ice within the cesspool.

7. A cesspool locating and thawing device comprising a flexible locating tube leading to the said cesspool and serving as means for locating the said cesspool when imbedded in ice, and means connected to the said locating tube for distributing steam within the cesspool comprising a depending inlet tube centrally disposed therein and provided with a plurality of openings, through which steam may be directed to any accumulation of ice within the said cesspool.

8. A cesspool locating and thawing device comprising a flexible locating tube leading to the said cesspool and serving as means for locating the said cesspool when imbedded in ice, and means connected to the said locating tube for distributing steam within the cesspool comprising a depending inlet tube centrally disposed therein and provided with a plurality of openings located at varying planes in the tube wall, through which steam may be directed to any accumulation of ice within the said cesspool.

9. A cesspool locating and thawing device comprising a cover for the same, a locating flexible tube connected to an opening in the said cover and serving as means for locating the said cesspool when imbedded in ice, and means connected to the said locating tube for distributing steam within the cesspool comprising a depending inlet tube centrally disposed therein and provided with a plurality of openings, through which steam may be directed to any accumulation of ice within the said cesspool.

10. A cesspool locating and thawing device comprising a flexible locating tube leading to the said cesspool and serving as means for locating the said cesspool when imbedded in ice, and a depending inlet tube inserted in the said opening and leading into the center of the cesspool and adapted to serve as means for distributing steam within the cesspool and provided with a series of spaced and staggered openings therein, whereby steam introduced to the said tube may be radiated in a plurality of directions to the core of any accumulation of ice within the said cesspool.

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