

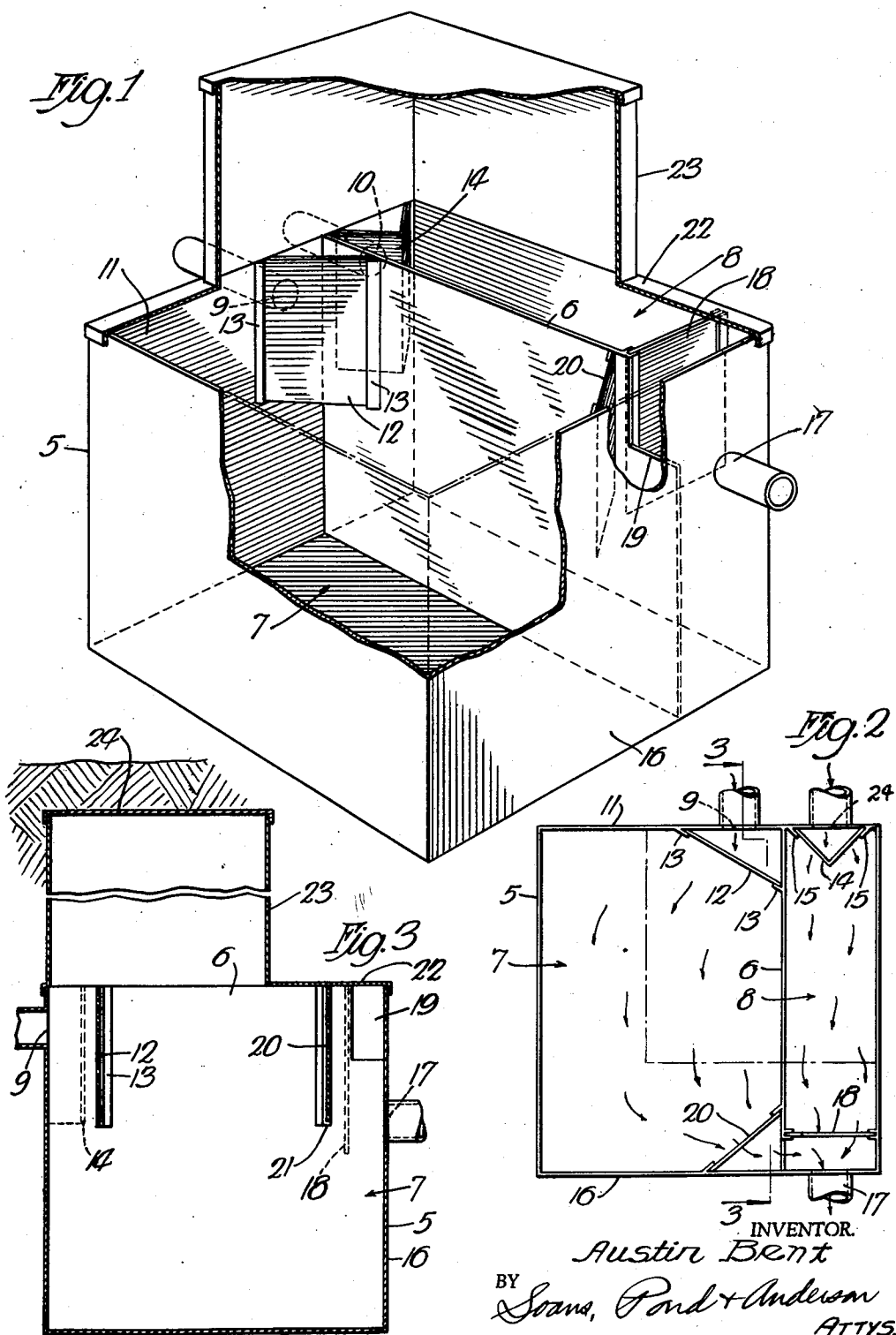
April 14, 1942.

A. BENT

2,279,813

COMBINED SEPTIC TANK AND GREASE TRAP

Filed Aug. 28, 1940



UNITED STATES PATENT OFFICE

2,279,813

COMBINED SEPTIC TANK AND GREASE TRAP

Austin Bent, Land O'Lakes, Wis.

Application August 28, 1940, Serial No. 354,504

3 Claims. (Cl. 210-6)

This invention relates to an improvement in the handling and disposal of sewage particularly in rural and other homes or buildings which are not served by municipal or other sewage disposal systems.

According to the conventional practice, grease traps and septic tanks are made separate units and they are separately installed most frequently by being completely buried in the ground. Such devices, although requiring but little attention, nevertheless must be cleaned occasionally since it is found in practice that stoppage quite often occurs at the in-take opening.

The main object of the present invention is to simplify the installation and maintenance of such devices as septic tanks and grease traps.

Other objects and advantages of the invention will be understood by reference to the following specification and accompanying drawing wherein there is illustrated a combined septic tank and grease trap embodying a selected form of the invention.

In the drawing:

Fig. 1 is a perspective of the improved combined septic tank and grease trap, certain portions being broken away to more fully illustrate the construction;

Fig. 2 is a plan with a cover unit removed; and

Fig. 3 is a section on the line 3-3 of Fig. 2.

The combined septic tank and grease trap shown in the drawing contemplates a main receptacle 5 which may be of sheet metal or other construction and of any suitable shape and in this instance it is shown as being of rectangular form. The main receptacle 5 is provided with a partition wall 6 which divides the receptacle into two compartments respectively designated 7 and 8, compartment 7 constituting a septic tank and compartment 8 a grease trap.

The receptacle 5 and partition 6 may be of suitable metal plates welded or otherwise joined together to insure a permanent, rigid structure.

Inlet openings indicated at 9 and 10 are provided in the wall 11 of the main receptacle and communicate respectively with the upper portions of the septic tank compartment 7 and the grease trap compartment 8. If desired, provision may be made for facilitating the connection of suitable drain tile or other piping to said inlet openings. A baffle plate 12 is removably mounted in the septic tank in front of the inlet opening 9, such plate being so mounted in this instance by being slidably fitted within guide members 13 which may be suitably secured to the wall 11 and parts 6 as indicated. Suitable provision

is, of course, made for engaging the bottom edge of the baffle plate 12 to prevent its dropping down to the bottom of the septic tank, said plate being of considerably less depth than the septic tank, as clearly shown in Figures 1 and 3. The baffle plate does, however, extend downwardly substantially below the inlet opening 9 so as to effectively direct sewage downwardly into the septic tank.

A removable baffle plate 14 is associated with the inlet opening 10 in the grease trap compartment 8, such baffle plate being in this instance of angular form as clearly indicated in Figures 1 and 2, and being slidably mounted so as to be removable by means of guides such as indicated at 15 carried by the wall 11 of the receptacle. Suitable means is also provided for engaging the bottom edge of the baffle member 14 to prevent its dropping downwardly to the bottom of the grease trap, said baffle member 14 being of considerably less depth than the depth of the grease trap but nevertheless extending downwardly substantially below the inlet opening 10.

An outlet opening is provided in the wall 16 of the receptacle, such outlet opening being indicated at 17 and communicating directly with the grease trap compartment 8. The outlet opening 17 is located at a level somewhat below the level of the inlet openings 9 and 10 and a baffle plate 18 is provided in the grease trap in front of the outlet opening 17 to prevent the floating grease from reaching the outlet opening 17.

The septic tank compartment 7 communicates with the outlet opening 17 through an opening 19 provided in the upper corner of the partition wall 6 adjacent the wall 16 of the receptacle. To prevent solid matter which normally floats in the septic tank compartment 7 from reaching the outlet 17 there is provided a baffle plate 20, the same extending downwardly somewhat below the bottom of the opening 19 and to about the same extent as the in-take baffle 13.

The baffle plates 18 and 20, like the baffles 12 and 14, are preferably removably mounted in the respective compartments by being slidable in suitably formed guides as indicated, and, of course, suitable stop means is provided for supporting the baffle plates 18 and 20, in the illustrated positions. For example, the guide members for the baffle plates may have their lower end portions turned under as indicated at 21.

The combination septic tank and grease trap structure thus described may be provided with any suitable form of cover and buried in the

ground to the desired depth and completely covered so as to be wholly concealed. I prefer, however, to provide an extension top arrangement which includes a cover portion 22 for the main receptacle 5 and an upwardly extending body 23 which constitutes, in effect, an upward extension of the main receptacle 5. The extension 23 is in turn provided with a removable cover 24. Suitable peripheral flanges may be provided on the covers 22 and 24 to maintain them in proper position on the receptacle and extension, respectively. The extension 23 may be of considerably reduced transverse dimensions as compared with the dimensions of the main receptacle while nevertheless providing adequate room to facilitate cleaning of the septic tank and grease trap and removal of the baffle plates 12 and 14 when required for cleaning purposes. As a general rule, removal of the baffle plates 18 and 20 is not necessary but it will be apparent that the extension top may be lengthened so as to extend over said baffle plates 18 and 20 to permit their removal if desired.

The improved structure with its extension 23 may be buried in the ground and the cover 24 of the extension covered to a relatively thin depth which will nevertheless be sufficient to adequately conceal the structure while at the same time requiring no excessive amount of digging to gain access to the top 24. However, if desired, the extension 23 may be of such length that the cover 24 will be disposed on the surface of the ground so as to be readily accessible without any digging.

It will be apparent that the described structure simplifies the matter of installation and maintenance of septic tanks and grease traps in that it requires the burying of but a single unitary structure and in that it provides for access for cleaning or other purposes to both the septic tank and grease trap through a single opening.

Changes in the shape and arrangement of the combined structure and in the various described details may be made without departing from the spirit of the invention as defined in the following claims.

I claim:

1. In a device of the class described, a receptacle having a partition wall separating the

receptacle into a pair of compartments, said receptacle having a pair of relatively independent inlet openings respectively communicating with said compartments, and an outlet opening communicating with one of said compartments in spaced relation to the inlet opening thereof and at a level lower than that of said inlet opening, a baffle plate in said last mentioned compartment spaced from said outlet opening and depending from a level above said outlet opening to below the same, said partition having an opening intermediate said baffle plate and the wall portion having said outlet opening and above the latter, and a baffle plate in the other of said compartments overlying said partition opening and extending downwardly to a level below the same.

2. In a device of the class described, a receptacle having a partition wall separating the receptacle into a pair of compartments, said receptacle having a pair of relatively independent inlet openings respectively communicating with said compartments, a baffle plate in each of said compartments overlying the respective inlet openings and depending below the same, and an outlet opening communicating with one of said compartments in spaced relation to the inlet opening thereof, and at a level lower than that of said inlet opening, a baffle plate in said last mentioned compartment spaced from said outlet opening and depending from a level above said outlet opening to below the same, said partition having an opening intermediate said baffle plate and the wall portion having said outlet opening and above the latter, and a baffle plate in the other of said compartments overlying said partition opening and extending downwardly to a level below the same.

3. A structure according to claim 2 wherein the receptacle is provided with a cover having an upwardly extending manhole of substantially smaller area than said receptacle but of such size as to overlie the entire area thereof occupied by said inlet opening baffle plates, the latter being removably mounted in the receptacle and adapted to be removed therefrom through said manhole, and a removable cover for said manhole.

AUSTIN BENT.