

J. W. BRENKERT.
WATER FILTER AND SILT CONSERVING PIPE.
APPLICATION FILED JAN. 23, 1919.

1,355,073

Patented Oct. 5, 1920.

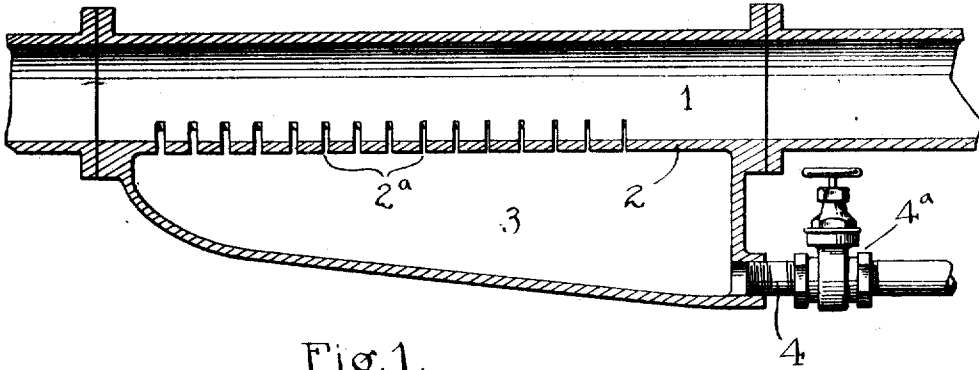


Fig. 1.

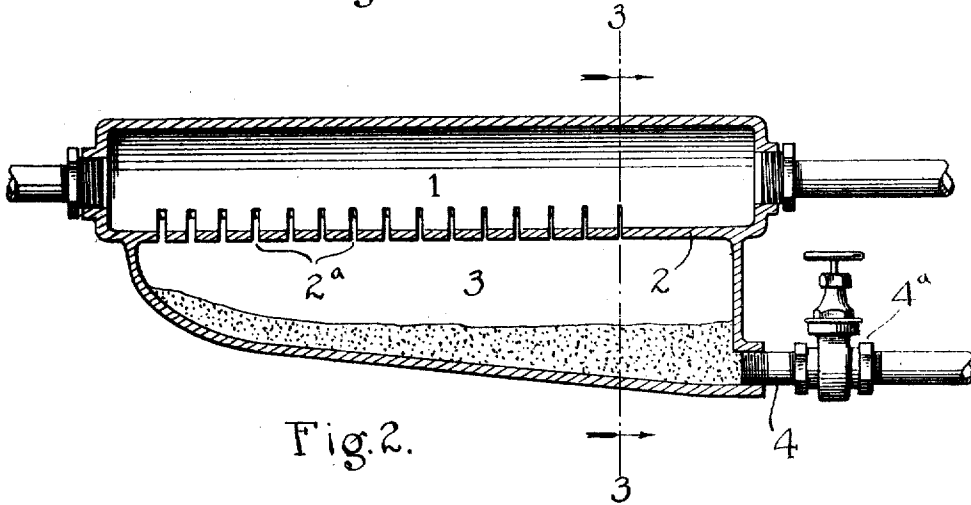


Fig. 2.

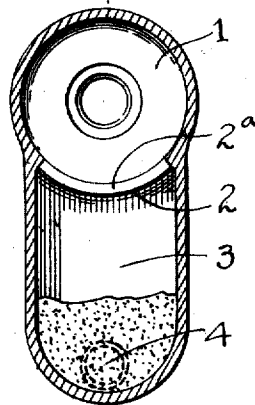


Fig. 3.

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JOSEPH W. BRENKERT, OF SAN DIEGO, CALIFORNIA.

WATER-FILTER AND SILT-CONSERVING PIPE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH W. BRENKERT, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Water-Filters and Silt-Conserving Pipes, of which the following is a specification.

My invention relates to a water filter and silt conserving pipe to be used in connection with main line and service water pipes for cleansing the water of silt, dirt and heavy particles and conserving the same for use for fertilizer and the like and the objects of my invention are first, to provide a device of this class for separating dirt, sand, silt and heavier materials from the water as it passes through conducting pipes of different kinds; second, to provide a pipe structure of this class which is made in two compartments, the one above the other, the lower one for the purpose of catching dirt, silt and the like from the water as it passes over a slotted partition between the two compartments in said pipe; third, to provide a device of this class which may be readily cleansed of the dirt by the pressure in the pipe and therefore will not clog and get out of order; fourth, to provide a device of this class which may be used either in connection with the small service pipe or in connection with a main line, and fifth, to provide a device of this class that is very simple and economical of construction, easy to install, positive in its action, and which will not readily deteriorate or get out of order.

With these and other objects in view as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims reference being had to the accompanying drawings and to the characters of reference thereon which form a part of this application in which:

Figure 1 is a longitudinal sectional view of my pipe device shown in position in a main pipe line which main line is shown fragmentarily and showing some of the parts of my device in elevation; Fig. 2 is a similar view showing the connection with smaller pipes and a differently constructed

connection which is preferable for service pipe connection and Fig. 3 is a sectional view through 3—3 of Fig. 2.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawings.

The main conducting pipe portion 1, partition portion 2, silt trap portion 3, silt outlet pipe 4, and valve 4^a constitute the principal parts and portions of my pipe structure.

The main conducting portion 1 is constructed similarly to the ordinary or conventional water pipe and provided with flanges or threads for connection with the conventional pipe sections and integrally connected with this portion 1 is the sand trap portion 3 which extends downwardly therefrom and the partition 2 between the portions 1 and 3 is provided with a plurality of slots 2^a therein which are adapted to permit silt, sand, dirt and other materials heavier than the water to pass down through said slots 2^a into the trap portion 3 and remain therein until emptied.

It will be here noted that the slots 2^a vary in width being reduced in width toward the outlet end thus adding to the efficiency of the trap and that these slots 2^a do not extend the full length of the partition 2 so that there is provided a dead end portion near the outlet end in said trap portion the length of which may be varied to suit the size of the pipe and the condition of the water which passes through the pipe. The lower wall of this trap portion 3, it will be noted gradually enlarges toward the outlet end which facilitates the thorough cleaning of the same by the pressure of water when the valve 4^a in the silt outlet pipe 4 is opened.

It is obvious that this pipe structure may be made any length desired to suit the condition of the water that passes through the pipe, that of the structure is too long to be molded in one piece conveniently that it may be made in sections and the separate sections connected together by means of flanges or other conventional manner. It is also obvious that the walls of the slots 2^a may be made downwardly diverging or converging or straight and varying in width and length as desired, that the connection of this pipe structure to the main

line or service pipe may be made either as shown in Figs. 1 or 2 or any conventional manner.

It is also obvious that with this construction there is provided a water pipe which may be placed in a main line or service pipe whereby particles heavier than the water will pass down through the slots into the trap as the water passes through the main conducting portion and that this structure may be made of sufficient length to thoroughly cleanse the water of dirt, silt, sand and other heavy materials and that this trap portion 3 may be thoroughly cleansed by opening the valve 4^a and permitting the water pressure to force said sand, dirt and so forth out and it may be conducted by the pressure to any place desired for use as fertilizer or otherwise.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a device of the class described, a pipe section comprising an upper water conducting channel portion, a lower silt trap portion and a partition separating said lower silt trap portion from said water conducting channel portion provided with a plurality of slots extending over a portion only of the surface of said partition, thus providing a dead end near the outlet end of said lower silt trap portion and an outlet means connecting with the dead end of said trap portion for cleansing said trap portion of sand, silt and the like.

2. In a device of the class described, a double pipe member consisting of an upper water conducting portion, a lower silt trap portion and a partition dividing said portions provided with a plurality of slots in said partitions in the portion toward the

inlet end only of said pipe whereby a dead end is provided near the outlet end of said trap portion.

3. In a device of the class described, a double pipe member consisting of an upper water conducting portion, a lower silt trap portion integrally connected therewith and a partition dividing said portions provided with a plurality of slots in said partition toward the inlet end of said pipe only, forming a dead end in the opposite end of said trap portion and means connected with the outlet end of said trap portion for opening and closing said trap portion whereby the silt may be readily removed from said trap portion.

4. A water filter and silt conserving pipe, including a cylindrical main water conducting portion provided with a plurality of slots of gradually narrowing width toward the outlet end therein dividing said pipe into upper and lower compartments, the upper one forming a water conductor and settler and the lower one forming a silt and dirt trap.

5. A water filter and silt conserving pipe, including a cylindrical main water conducting portion provided with a plurality of transverse slots in its lower side of gradually narrowing width toward the outlet end and extending over only a portion of the inlet end providing a dead end near the outlet end and an integral curved wall tapering bottom trap portion on the lower side thereof adapted to catch sand and silt that gravitates through said slots.

In testimony whereof, I have hereunto set my hand at San Diego, California, this 16th day of January, 1919.

JOSEPH W. BRENKERT.