No. 883,629. PATENTED MAR. 31, 1908.

A. F. DENLER.

DRAIN.

APPLICATION FILED DEC. 6, 1907.

Fig. 1.

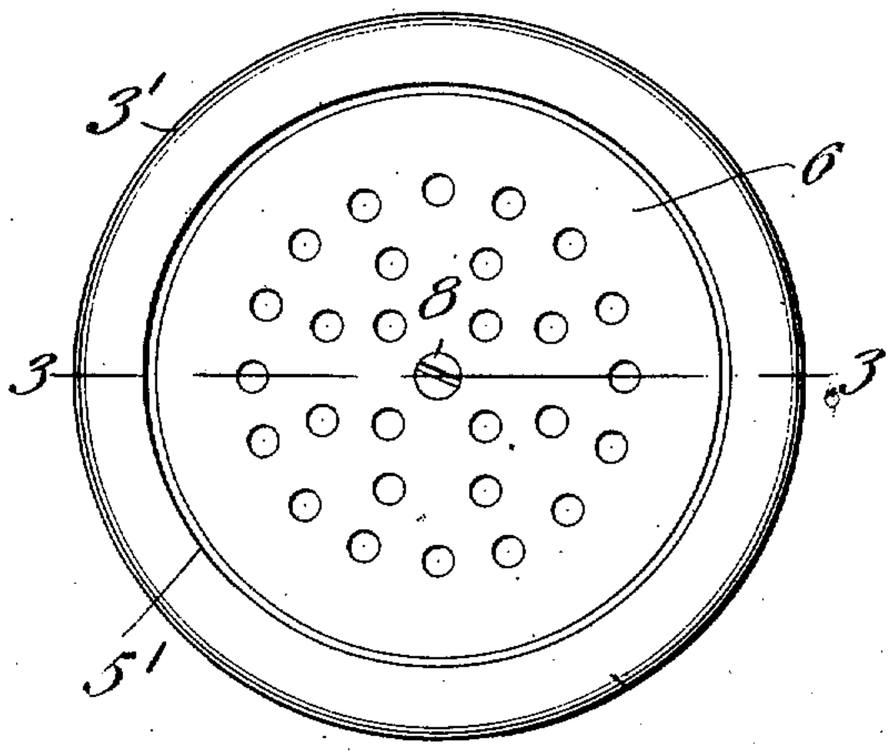


Fig. 2.

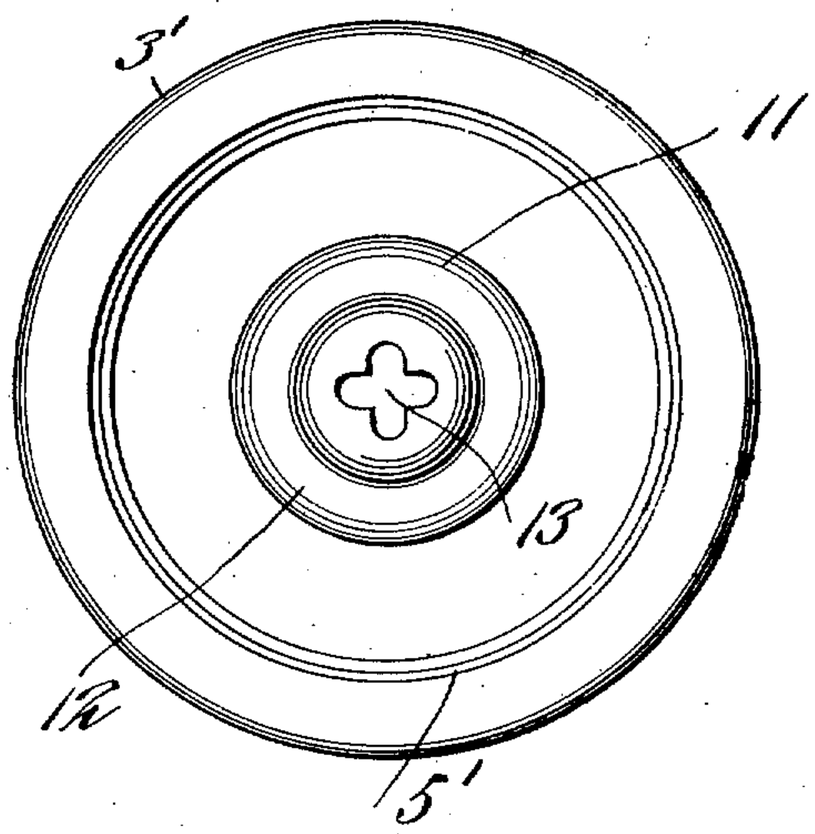


Fig. 3.

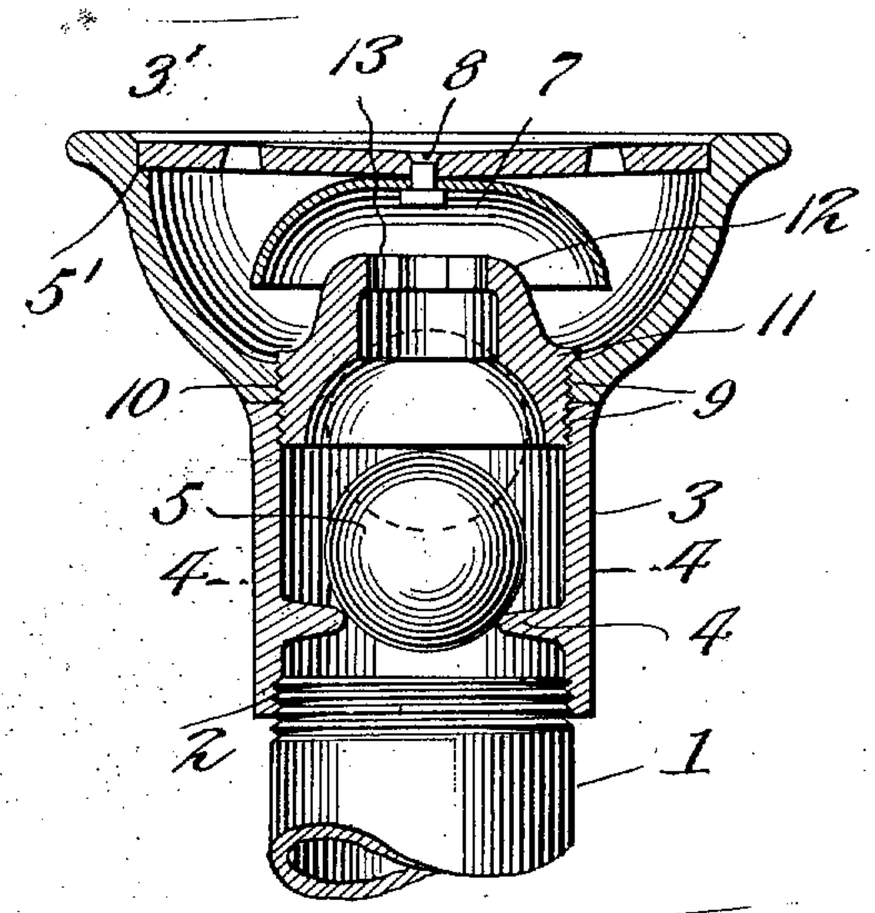
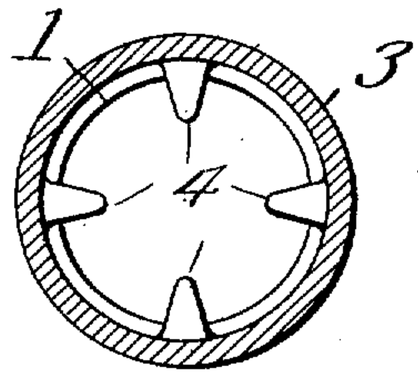


Fig. 4.



Witnesses

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No. 883,629. Specification of Letters Patent. Patented March 31, 1908.

Application filed December 6, 1907. Serial No. 405,412.

To all whom it may concern:

Be it known that I, AUGUST F. DENLER, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Drains, of which the following is a specification.

This invention relates to drains for sewer pipes, and the object of the invention is to provide a drain having a valve so arranged as to allow the free passage of water into the sewer and to prevent the back pressure of the water within the sewer flowing outward through the drain, when such back pressure occurs.

Another object of the invention is to provide a casting composed of separate parts so arranged as to be easily connected with each other to provide a drain for sewer pipes.

With these and other objects in view the invention resides in the novel construction of parts and their arrangement in operative combination hereinafter fully described and claimed.

In the drawings, Figure 1 is a top plan view of a drain pipe constructed in accordance with my invention. Fig. 2 is a similar view with the perforated cover removed. Fig. 3 is a longitudinal section upon the line 3—3 of Fig. 1, and Fig. 4 is a horizontal section upon the line 4—4 of Fig. 3.

In the accompanying drawings the numeral 1 designates a section of an ordinary sewer pipe, adapted to be secured upon a main sewer, and having its upper end provided with the threads 2 by which it is adapted to be connected with my improved drain. While I have shown the sewer pipe 1 provided with threads, it will of course, be understood that I do not limit myself to this particular construction as the end of the pipe may be provided with the usual enlargement by which it is adapted to be calked to the drain, and this means of connecting the drain and pipe may, in some cases, be preferable.

My improved drain comprises a bowl shaped casting 3′ having a reduced pipe portion 3 connected with the casting and being provided with inwardly projecting teeth or fingers 4 adapted to act as a seat for a ball valve 5. The bowl shaped casting 3′ is provided with an annular shoulder 5′, adapted for the reception of a perforated cover or closure 6. The cover 6 is provided upon its under side with a deflector 7 secured to the cover by a bolt 8.

The interior upper portion of the pipe 3, and the lower portion of the casting 3′ are provided with the screw threads 9 adapted to register with the threads 10 of a bushing 11, whereby the bowl 3′ and the pipe 4 are secured together and to the bushing 11. The bushing 11 is provided with an upwardly extending portion 12 adapted to normally lie beneath the deflector 7 of the cover 6, and the bushing is provided upon its upper surface with an opening 13 of a cross sawed formation, as clearly illustrated in Fig. 2 of the drawings. The bushing 11 is hollow and is formed at its lower extremity with a semi-spherical portion, which is adapted to act as a seat for the ball valve 5 when back pressure within the sewer forces the ball valve upward and away from its seat upon the fingers 4 of the casting. The ball valve 5 is constructed of some light material so as to make it susceptible to the water rising within the casting, and is of a size lesser than the diameter of the pipe section 3 so as to offer no resistance to the water flowing into the sewer through the drain.

From the above description it will be noted that I have provided a simple and efficient drain for sewers which will effectively prevent the water of the sewer backing through the drain when rains or other causes result in the sewer being crowded beyond its capacity.

It will be further noted that with the construction for drains for sewer pipes illustrated and described a free inlet for water is presented, the shield or deflector provided by the cover effectively preventing the stoppage of the drain inlet to the sewer by sticks or other obstructions, and that the parts of the drain are so constructed and arranged as to be readily removable from each other and which provides means for the ready insertion or removal of the ball valve.

Having thus fully described the invention what is claimed as new is:

A drain for sewer pipe comprising a bowl-

shaped member having a pipe extension, fingers upon the interior of the extension, a ball valve upon said fingers, a hollow bushing having a valve seat connecting the bowl-shaped member and the pipe extension, and a perforated cover having a deflector removably secured to the mouth of the member.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUST F. DENLER.

Witnesses:
JOSEPH E. BACHMANN,
WILLIAM J. BACHMANN.