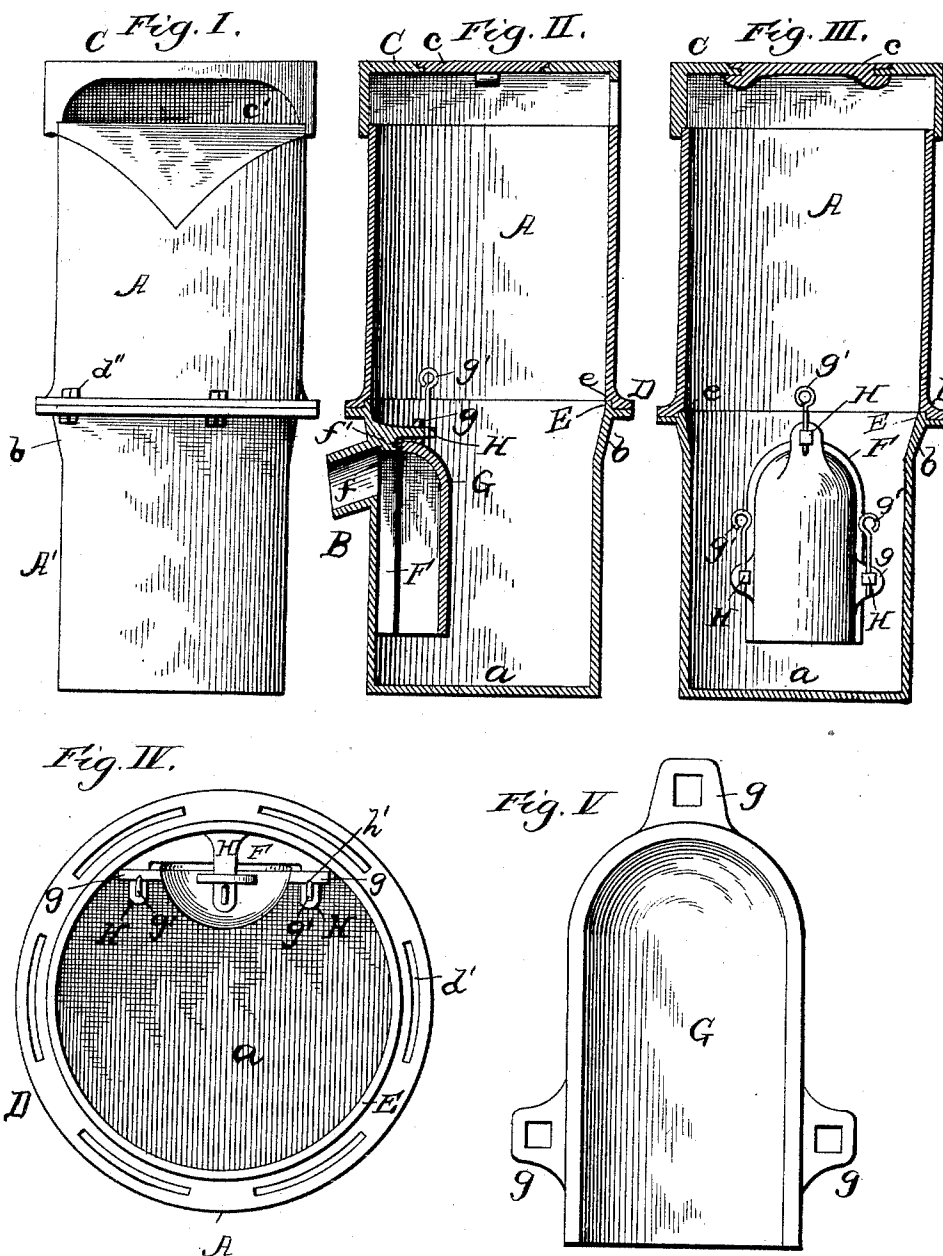


(No Model.)

J. E. SHAPLEY.
CATCH BASIN.

No. 468,157.

Patented Feb. 2, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES E. SHAPLEY, OF BINGHAMTON, NEW YORK, ASSIGNOR TO JOHN S. WELLS, WILLIAM M. SHAPLEY, AND JAMES E. SHAPLEY, OF SAME PLACE.

CATCH-BASIN.

SPECIFICATION forming part of Letters Patent No. 468,157, dated February 2, 1892.

Application filed August 11, 1891. Serial No. 402,389. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. SHAPLEY, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Street Receivers or Catch-Basins; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in street receivers or catch-basins, and it has for its object to provide suitable means to prevent the escape of impure air or gases from the sewer through the receiver; and a further object is to improve the construction of the receiver to make it cheaper of manufacture, simple in arrangement, and effective in operation.

With these and other ends in view my invention consists in constructing the receiver of two or more sections of any desired shape in cross-section, the lower section having a closed bottom and the top section surmounted by a suitable cover. These sections are joined together by bolts or other devices, which are fitted in flanges on the adjoining ends of the sections, and a shoulder is provided on the lower section which is arranged to fit on an annular seat or groove on the upper section. At the water-surface the lines of the receiver incline, and over the usual sewer-outlet a hood or trap is firmly clamped against a ridge or projection on the inner surface of the receiver, and an elastic packing is inserted in a groove in said ridge or projection, which makes an air-tight joint and prevents the escape of impure air or gases. The hood or trap is provided with projecting lips arranged to fit over lugs on the receiver, and it is locked in place by tapering pins or wedges inserted in the lugs.

My invention consists, further, of certain details of construction and arrangement of parts, as will more fully appear hereinafter.

To enable others to more readily understand my invention, I have illustrated the same in the accompanying drawings, in which—

Figure I is an elevation of my improved street receiver or catch-basin. Fig. II is a central vertical sectional view thereof. Fig. III is a transverse sectional view on the line xx of Fig. I. Fig. IV is a detail view of the hood or trap, and Fig. V is a top plan view of the lower section with the hood or trap removed.

Referring to the drawings, in which like letters of reference denote corresponding parts in all the figures, the street receiver is composed of two or more sections A A', and B is the sewer which leads from the lower section. The upper section is provided with a suitable top C, and a removable cap c is arranged to fit tightly in the central opening therein in any desired manner. The sections forming the receiver may be of any shape in cross-section, but they are preferably cylindrical, as shown in the drawings, and the lower section has a closed bottom a and the inclined sides b at the water-line to prevent fracture from freezing. At the juncture of the two sections of the receiver outwardly-projecting flanges are formed, by means of which they are secured together. The flange D on the upper section is provided with bolt-holes and the flange d on the lower section has a series of slots d' , and the bolts d'' are passed through the holes and slots in the flanges and secured in place by nuts or other desirable means. The slots in the lower section permit the upper section to be adjusted or revolved a limited distance to bring the top C and the receiving-opening c' at the proper position on the street, and this adjustment is desirable, as the lower section is firmly embedded in the ground and could only be removed with much labor, while the upper section is practically free to move with very little trouble. To form a firm and tight joint between the two sections I provide an upwardly-projecting shoulder E on the lower section above the flange thereon, which is arranged to fit in an annular seat e in the upper section, but the relative position of this shoulder and seat may be changed as desired. On the inner surface of the lower section I provide a ridge F, substantially U-shaped in form, which curves around above the sewer and extends down

near to the bottom of the section on either side of the sewer. This ridge is provided at its median line with a groove f , which extends throughout its length, and packing f' , of rope, oakum, rubber, or any other suitable material, is fitted in the groove. The hood or trap G is arranged to fit closely against this packing f' , and it has its lower end open to permit the water and sewage to pass into the sewer. At the top and on either side of the ridge are projecting lugs H , and the hood or trap is provided with corresponding lips g , having openings arranged to fit over the lugs H , and the hood or trap is firmly clamped against the shoulder by means of tapering pins or wedges g' , which fit in openings h in the lugs H , and are guided or retained from displacement by grooves h' in the lips, in which the pins fit. By this arrangement of the hood or trap and the manner of securing it in place a perfectly air-tight joint is formed, which will prevent the escape of impure air and gases from the sewer, the lower end of said hood or trap being below the water-line, and the sewer prevents the gas from escaping. The peculiar manner of fastening the hood or trap in place is also advantageous, as it provides an easy method of forcing the hood or trap against the packing in the groove, and at the same time the pins can be readily pulled out to remove the hood or trap.

I am aware that changes in the form and proportion of parts and details of construction can be made without departing from the spirit or sacrificing the advantages of my invention, but I prefer to construct the receiver of iron, and reserve the right to make such

changes as fall within the scope of my invention.

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

1. In a street receiver or catch-basin, the combination of the sewer, the ridge extending around the sewer and having the groove in the front edge thereof, the packing fitted in the groove, and the hood or trap adapted to be clamped tightly against said packing to form an air-tight joint, substantially as described.

2. The combination, with the receiver, of the U-shaped ridge on the inner face thereof, the lugs around said shoulder, the hood or trap having the projecting lips arranged to fit over the lugs, and the pins, substantially as described.

3. The combination, with the receiver, of the U-shaped ridge on the inner face thereof, the groove in said ridge, the packing in said groove, the outwardly-projecting lugs around said ridge, the hood or trap having the projecting lips integral therewith arranged to fit over the lugs, the pin-holes in the lugs and the grooves in the lips, and the pins having the tapering points fitted in the holes in the lugs and tightly clamping the hood or trap against the packing, substantially as described.

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

JAMES E. SHAPLEY.

Witnesses:

CHESTER F. WELLS,
H. C. REGAN.