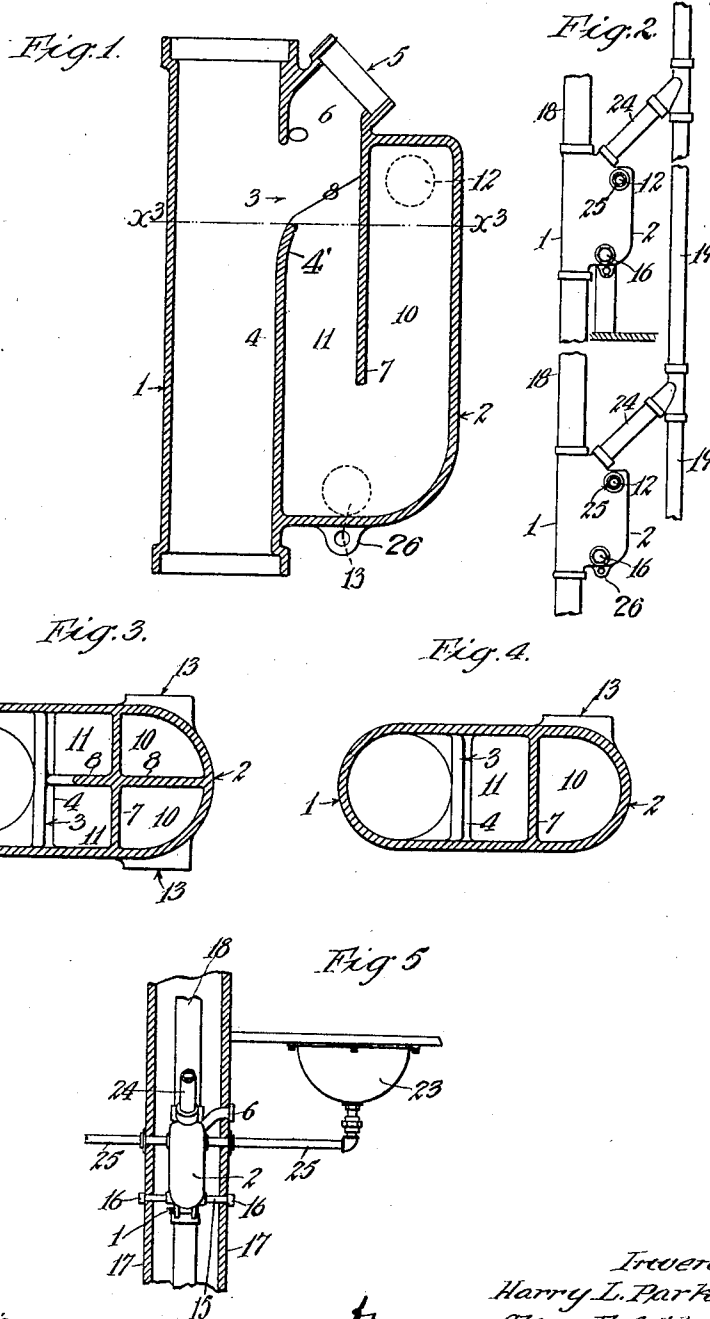


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COMBINATION TRAP FITTING.
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904,082.

Patented Nov. 17, 1908.



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UNITED STATES PATENT OFFICE.

HARRY L. PARKER AND ALTON E. COBB, OF LOS ANGELES, CALIFORNIA.

COMBINATION TRAP-FITTING.

No. 904,082.

Specification of Letters Patent.

Patented Nov. 17, 1908.

Application filed February 17, 1908. Serial No. 416,381.

To all whom it may concern:

Be it known that we, HARRY L. PARKER and ALTON E. COBB, both citizens of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Combination Trap-Fitting, of which the following is a specification.

This invention relates to a combined trap and drainage fitting presenting in a single fitting the functions of a trap and of a section of a drain pipe or soil pipe, so as to eliminate the cost of a special trap fitting and the expense of connecting the same.

The main object of the invention is to provide a trap of this character which can be disconnected from the sink, bowl or other fixture, draining thereinto without the liquid contents of the seal escaping.

In the accompanying drawings:—Figure 1 is a vertical section of the fitting embodying the invention and adapted to connect with inlets at both sides. Fig. 2 is a side elevation of two of the fittings connected to soil and vent pipes. Fig. 3 is a horizontal section on line x^x — x^x in Fig. 1. Fig. 4 is a section similar to Fig. 3, showing the application of the invention to a single fitting, adapted for connection to an inlet at one side only. Fig. 5 is an end elevation of the fitting as connected to a bowl, showing a portion of the containing wall in section.

Referring to Figs. 1 and 2, the fitting comprises a tubular or pipe section 1 and a trap chamber 2 formed as an extension on the side thereof. The trap chamber opens into the pipe section 1 by an opening 3 in the wall 4 separating them. Said chamber 2 also has an opening 5 at its top to receive or communicate with a vent pipe and is also preferably provided with a clean-out duct 6 leading from the upper portion thereof. The edge of the wall 4 at the bottom of the opening 3 is inclined outwardly from the pipe section 1 into the chamber 2, as shown at 4', so as to prevent the contents of the pipe from entering the chamber as it passes downward. A partition 7 extends downwardly from the top of chamber 2 to a level below the lower edge of the opening 3, this partition being parallel to the wall 4; and a partition 8 at right angles, or transversely to wall 4 and partition 7 extends upwardly from the bottom of chamber 2 to, or above, the level of the lower edge of opening 3, said partition 8 extending upwardly between

partition 7 and the outside wall of chamber 2 to the top of said chamber, thus forming two separate trap or seal chambers, each having a down-take portion 10 and an up-take portion 11, but both having a common discharge outlet through the opening 3, the said two portions being connected at their lower ends. An inlet connection or opening 12 leads into each down-take chamber 10 at the side thereof, said inlet opening being above the bottom of partition 8 and above the lower edge of opening 3, so that the inlet opening will be above the level of the water seal in each trap chamber. At or near the bottom of each trap chamber an opening 13 is preferably provided for emptying the trap, this opening being closed by a cap or being connected to a duct or dead end 15 closed at the end by a plug or cap 16.

The trap is substantially flat and connected as shown in Fig. 5, being inclosed between two parts of a wall 17 so as to stand edgewise within the wall, thereby enabling the trap to be used within a comparatively thin wall and avoiding the use of any outside exposed trap. When a series of the fittings are provided on different floors, they may be connected as shown in Fig. 2, the soil pipe 18 being connected to include the sections 1, and the vent pipe 19 being connected to vent openings 5 by pipes 24. To facilitate this connection, the opening or bell mouth 5 for the connection of the vent pipe preferably extends at an angle, or obliquely upward and outward. To facilitate access, the clean out duct 6 and the emptying pipe 15 may extend to the outside of the wall. The clean out 6 is located so close to the wall of the pipe at the top of the opening 3 that when a cleaner is inserted it can be passed down upon either side of the wall 4, and especially where the top of the wall is inclined as heretofore described, thereby enabling the operator to clean out the trap or the pipe with equal facility. The vent 5 is preferably in the form of a Y so that the pipe leading therefrom to the pipe 19 will lie in the plane of the chamber 2 and can be inclosed by the walls 17 of the building. A bowl or other fixture, indicated at 23, is connected by its drainage pipe 25 with the inlet opening 12 at the side of one of the down-take chambers 10 of the trap fitting, and a similar connection may be made to a fixture at the other side of the trap fitting, the two sides operating prac-

tically independently but providing for drainage of two fixtures at substantially the cost of one fitting.

The drainage from either bowl or fixture will run through the pipe 25 through the inlet 12 into the upper portion of the down-take chamber 10, and passing down through the water seal connecting the down-take chamber 10 with the up-take chamber 11, will overflow over the lower edge of opening 3 into the soil pipe section 1. The water thus flowing into either side of the fitting is kept separate from the water at the other side so as to preserve the full force and pressure of the liquid, so that in flushing, for example, the fitting will be cleared by the flow.

In case a single fitting is desired, that is, one that is adapted for connection at one side only, the partition 8 is omitted, as shown in Fig. 4, so that a single down-take 10 and a single up-take 11 is provided, separated by the partition 7 and connected at their lower ends.

26 designates a lug on the bottom of the trap chamber for attachment or connection of any suitable standard or brace to aid in supporting the trap fitting.

What we claim is:—

1. A trap fitting comprising a pipe section having an opening in one side and a chamber formed exteriorly on said side, the wall of the section at the bottom of the opening being inclined outwardly into the chamber, a partition in said chamber extending from its top downwardly to a point below said opening, the top of the chamber being provided with an inlet, a vent and with a clean out opening, said inlet being higher than the bottom of the opening in the side of the pipe section, and the clean out opening being so close to said side that a cleaner can be inserted through the clean out into the pipe section or into the chamber.

2. A trap fitting comprising a pipe section having one side flattened and provided with an opening near its top, and a flat chamber formed exteriorly upon said side of the section, the edge of the wall at the bottom of said opening being inclined outwardly from said section into said chamber, a flat partition extending downwardly from the top of the chamber parallel with the first mentioned wall to a point below said opening, the top of said chamber being provided with an inlet, a vent opening and a clean out opening, said vent opening forming with the pipe sec-

tion a Y which lies in the plane of the casing, the clean out being located so close to the opening in the side of the pipe section that a cleaner inserted through the clean out can be passed down upon either side of said wall, and the inlet being higher than the bottom of the opening in the side of the pipe section.

3. A trap fitting comprising a pipe section, a trap chamber formed therewith and communicating therewith by an opening at a point above the level of the bottom of the chamber, said chamber having a partition extending from the upper part of the chamber downwardly below the level of the said opening and dividing the chamber into down-take and up-take portions communicating at their lower ends, the said up-take portion communicating at its upper end through the said opening with the pipe section, and the down-take portion extending above the said opening and provided with an inlet above the level of the bottom of said opening, and a partition extending transversely to the first named partition and dividing the down-take and the lower part of the trap chamber into separate chamber portions.

4. A trap fitting comprising a pipe section, a trap chamber formed therewith and communicating therewith by an opening at a point above the level of the bottom of the chamber, said chamber having a partition extending from the upper part of the chamber downwardly below the level of the said opening and dividing the chamber into down-take and up-take portions communicating at their lower ends, the said up-take portion communicating at its upper end through the said opening with the pipe section, and the down-take portion extending above the said opening and provided with an inlet above the level of the bottom of said opening, and a partition extending transversely to the first named partition and dividing the down-take and the lower part of the trap chamber into separate chamber portions, said last named partition extending to or above the level of the bottom of the opening into the pipe section.

In testimony whereof, we have hereunto set our hands at Los Angeles, California, this 8th day of February 1908.

HARRY L. PARKER.
ALTON E. COBB.

In presence of—

A. P. KNIGHT,
FRANK L. A. GRAHAM.