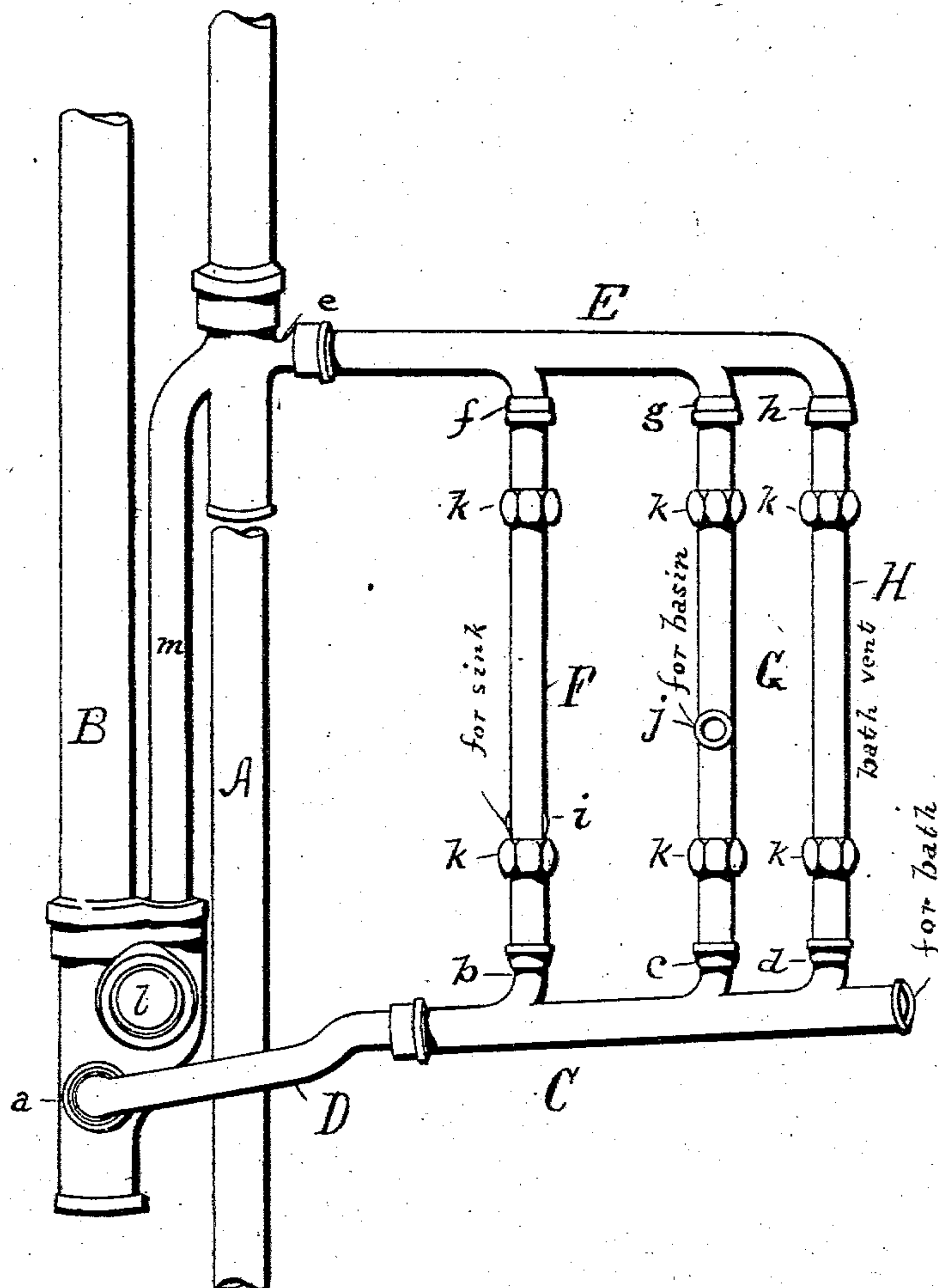


No. 740,412.

PATENTED OCT. 6, 1903.

J. L. FRUIN.
WASTE AND VENT SYSTEM.
APPLICATION FILED OCT. 29, 1902.

NO MODEL.



Witnesses
L. H. Fowler
David Dege

John L. Fruin Inventor
By his Attorney W. P. Peck Jr.

UNITED STATES PATENT OFFICE.

JOHN L. FRUIN, OF NEW YORK, N. Y.

WASTE AND VENT SYSTEM.

SPECIFICATION forming part of Letters Patent No. 740,412, dated October 6, 1903.

Application filed October 29, 1902. Serial No. 129,213. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. FRUIN, a citizen of the United States, and a resident of Brooklyn borough, New York city, State of New York, have invented certain new and useful Improvements in Waste and Vent Systems, of which the following is a specification.

The object of my invention is to provide a system of waste-pipes and vent-pipes by means of which the various devices—such as basins, bath-tubs, sinks, and closet-bowls, which are usually located in the same or adjoining compartments—can all be discharged and vented through a simple and compact arrangement of piping without any danger of having the emptying of one of these devices siphon out the trap of any of the other devices.

To this end my invention consists in a waste and vent system which is composed of a discharge-pipe leading from a bath-tub or other article to be discharged and vented having a series of openings along its side or top, a vent-pipe having a similar series of openings, and a number of connecting-pipes, each adapted to extend from an opening in the waste-pipe to the corresponding opening in the vent-pipe, one of said connecting-pipes serving as a vent and the other connecting-pipes each having an opening whereby it may communicate with a sink, basin, or other article to be discharged and vented.

One form of my invention is shown in the accompanying drawing.

A is the main vent-pipe, and B the main waste-pipe, forming part of the plumbing system with which my invention is intended to be used.

C is a waste-pipe adapted to serve as a waste common to all the sinks, basins, and bath-tubs which it is desired to have assembled as parts of one waste and vent system. One end of this pipe C communicates, preferably, with the bath-tub, while the other end, by means of the waste-sweep D, communicates with the main waste-pipe B, as shown at *a*. The waste-pipe C is provided with a series of openings or branches *b c d*, being preferably one more than the additional devices—such as sinks, basins, &c.—which are to be vented in addition to the bath-tub.

E is a vent-pipe communicating at *e* with

the main vent A and provided with a series of openings or branches *f g h*, corresponding to those of the waste-pipe C. Connecting the openings of the pipes C E are the pipes F G H. One of these, F, has an opening *i* for communication with a sink. Another, G, has an opening *j* for communication with a washbasin, while the other, H, has no side opening, as it serves as a vent for the bath-tub. All these parts are preferably made of cast-iron adapted to be screwed together, and the connecting-pipes are preferably provided with nut-like projections *k k*, by means of which they can be readily turned in coupling and uncoupling.

One advantage of my improvement lies in the fact that the waste-pipe C and the vent-pipe E being each a continuous length of pipe with the openings or branches formed integral therewith at the proper intervals, the system can be coupled together with great rapidity by reason of dispensing with the various joints heretofore employed, and the structure being thus a unit is very strong and durable, there being no joints in the horizontal or vent pipes to get displaced or broken.

As a rule three connecting-pipes only will be required, as shown; but my system can be applied to any larger or smaller number of tubs, sinks, basins, &c.

The opening *l* in the main waste-pipe is for communication with the closet-bowl, and the closet is vented by the vent-pipe *m*, leading to the main vent A.

When set up for operation, the venting of the waste-pipe C through the various vents prevents the siphoning out of any of the traps, owing to the fact that whatever suction is caused by the emptying of either tub, basin, or sink will exhaust itself upon air drawn through one of the vents without exhausting the water from any of the traps.

I claim—

A waste and vent system which consists of a main waste, a main vent, a continuous pipe length leading to the main waste from a bath-tub or other article to be discharged and vented, and having a series of branches along its side or top, a continuous pipe length leading to the main vent, and having a similar series

of branches turned toward the other series,
and a number of continuous pipes, each con-
necting a branch of one series with the oppo-
site branch of the other series; one of said
5 connecting-pipes serving as a vent connec-
tion, and each of the others having a branch
opening whereby it may communicate with a

sink, basin or other article to be discharged
or vented.

JOHN L. FRUIN.

Witnesses:

W. P. PREBLE, Jr.,
A. H. VAN HORENBERG.