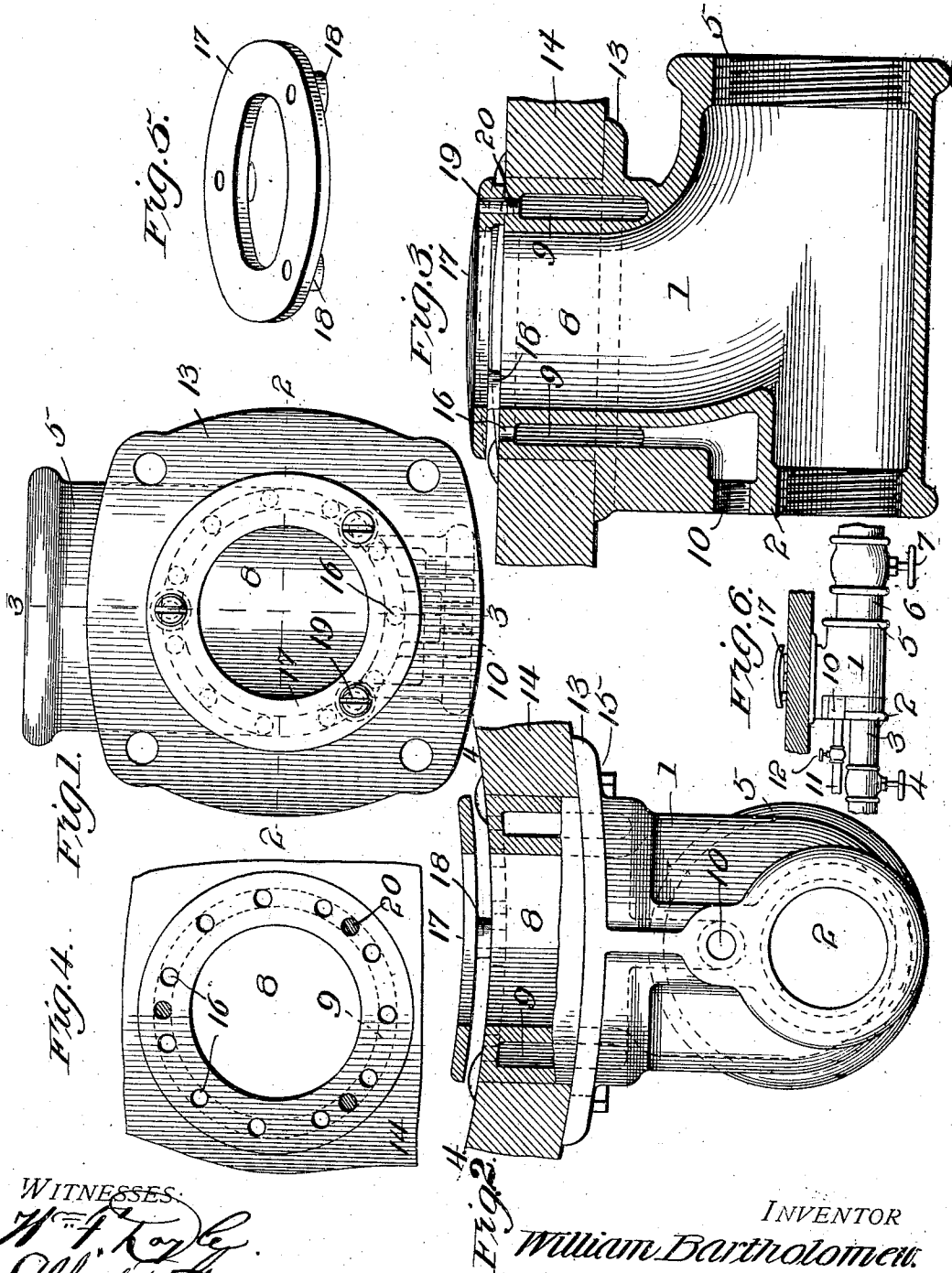


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PATENTED APR. 2, 1907.

W. BARTHOLOMEW.
PIPE COUPLING.

APPLICATION FILED FEB. 21, 1906.



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PIPE-COUPLING.

No. 848,873.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed February 21, 1906. Serial No. 302,238.

To all whom it may concern:

Be it known that I, WILLIAM BARTHOLOMEW, a citizen of the United States, residing at New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Pipe-Couplings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a pipe-coupling, and particularly to an elbow or T comprising a combination waste-water and steam connection in a single part.

The invention has for an object to provide an improved construction and arrangement of elbow or T coupling whereby steam to be conducted to a tank or receptacle may be passed through a chamber in said coupling and introduced adjacent to the water-passage therethrough.

A further object is to provide an improved construction and arrangement of baffle-plate adapted to lie above the steam-inlet openings to effect a lateral spreading of such steam when brought into contact with the liquid within the receptacle.

Other and further objects and advantages of the invention will be hereinafter fully set forth and the novel features thereof defined by the appended claims.

In the drawings, Figure 1 is a top plan of the coupling. Fig. 2 is an end view thereof with parts in section on the line 2 2, Fig. 1. Fig. 3 is a vertical section on the line 3 3, Fig. 1. Fig. 4 is a horizontal section on the line 4 4, Fig. 2. Fig. 5 is a perspective of the baffle-plate, and Fig. 6 is an elevation showing the connections for the coupling.

Like numerals of reference designate like parts throughout the several figures of the drawings.

This coupling is intended and adapted for use in connection with tanks or receptacles where the liquid is introduced through the coupling and then heated by the steam passing therethrough, while after the use of such liquid it is adapted to be withdrawn through the same coupling by a proper regulation of the valves carried by the conducting-pipes, thus rendering the invention particularly applicable for use in connection with washing-machines used for laundry purposes.

The numeral 1 indicates a casing or casting of any desired configuration or size provided

at one side with a liquid-intake opening 2, suitably threaded for connection with the conducting-pipe 3, provided with a controlling-valve 4, while at the opposite side a larger threaded opening 5 is provided and interiorly threaded to receive the discharge-pipe 6, provided with a controlling-valve 7, as shown in Fig. 6. At substantially right angles to these openings a conducting-passage 8 extends therethrough and is adapted to communicate with the receptacle to which the coupling is applied. Surrounding this passage a chamber 9 is provided in the casing 1, formed at its lower depending portion with a threaded connecting opening 10, adapted to receive the conducting-pipe 11, provided with the usual controlling-valve 12. The casing is also provided with a flange 13, adapted to abut against the body 14 of the receptacle and to be secured thereto in any desired manner—for instance, by bolts 15—while the portion containing the passage 8 extends through the receptacle. The steam-chamber 9 is provided with a series of discharge-openings 16, disposed at proper intervals, and for the purpose of preventing a jet or vertical flow of the steam into the liquid within the receptacle and in contact with the goods therein an annular baffle-plate 17 is provided to spread the steam and is spaced from the opening 16 by means of lugs 18 upon its lower surface, which are suitably apertured to receive the securing-screws 19, threaded into sockets 20 upon the face of the steam-chamber. This baffle-plate may be slightly curved, as shown in Figs. 2 and 3, to conform to the curvature of the inner face of the steam-chamber or of the receptacle, as found desirable.

In the operation of the invention when it is desirable to fill the receptacle with water and to heat the same the valve of the waste-pipe is closed and that of the feed-pipe opened, so as to permit a flow of liquid through the coupling into the receptacle, at which time the steam-pipe may also be opened, so as to heat the water to the desired temperature. After this temperature is secured the valve of the steam-pipe may be closed, and after using the liquid for the desired purpose it may be withdrawn through the same coupling by closing the valve of the inlet-pipe and opening that of the discharge-pipe. It will be seen that the invention comprises a combination-coupling for feeding

liquid and steam and also for withdrawing waste liquid through one inlet to the machine. The arrangement of the steam-chamber with its baffle-plate permits the inlet of the steam directly into the receptacle, and thus provides a heated passage for the water. Furthermore, the steam is spread by the baffle-plate so as to be thoroughly diffused through the liquid and does not flow in a direct jet, so as to come in contact with any material within the receptacle and injure the same.

Having now described my invention and set forth its merits, what I claim, and desire to secure by Letters Patent, is—

1. A coupling provided with an intake and discharge passage, and with a steam-chamber surrounding said passage and having discharge-openings adjacent to the open end thereof.

2. A coupling provided with an intake and discharge passage, and with a steam-chamber surrounding said passage and having discharge-openings adjacent to the open end thereof, and a baffle-plate disposed above said openings.

3. A coupling provided with an intake and discharge passage and with a steam-chamber surrounding said passage and having discharge-openings adjacent to the open end thereof, and an annular baffle-plate surrounding said passage and disposed above said openings.

4. A coupling provided with an intake and discharge passage and with a steam-chamber surrounding said passage and having discharge-openings adjacent to the open end thereof, an annular baffle-plate surrounding said passage and disposed above said openings, spacing-lugs upon the under face of said plate, and securing means extending through said lugs into the face of said steam-chamber.

5. A coupling provided at opposite sides with inlet and discharge openings, and a passage extending at an angle to said openings and provided with a surrounding steam-chamber having a feed-opening.

6. A coupling provided at opposite sides with inlet and discharge openings, a passage extending at an angle to said openings and provided with a surrounding steam-chamber having a feed-opening, and a baffle-plate spaced from the discharge-opening of said steam-chamber.

7. A coupling provided at opposite sides with inlet and discharge openings, a passage extending at an angle to said openings and provided with a surrounding steam-chamber having a feed-opening, an annular baffle-plate disposed above the discharge-openings from the steam-chamber, and spacing means disposed between said plate and a face of the steam-chamber.

8. A coupling provided at opposite sides with inlet and discharge openings, a passage extending at an angle to said openings and provided with a surrounding steam-chamber having a feed-opening, an annular baffle-plate disposed above the discharge-openings from the steam-chamber, spacing means disposed between said plate and a face of the steam-chamber, and a securing-flange carried by the coupling and surrounding said chamber.

9. A coupling comprising a casing provided at one side with an inlet-opening and at the opposite side with a waste-opening of greater diameter than the inlet-opening, and a passage extending through the casing at an angle to said openings and surrounded by an annular steam-chamber having at one side a depending inlet connection.

10. A coupling provided with an inlet and discharge passage, and a steam-chamber surrounding the same and having at one side a depending passage provided with pipe connecting means therewith.

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

WILLIAM BARTHOLOMEW.

Witnesses:

C. IRVING BELKNAP,
WM. KROGMAN.