

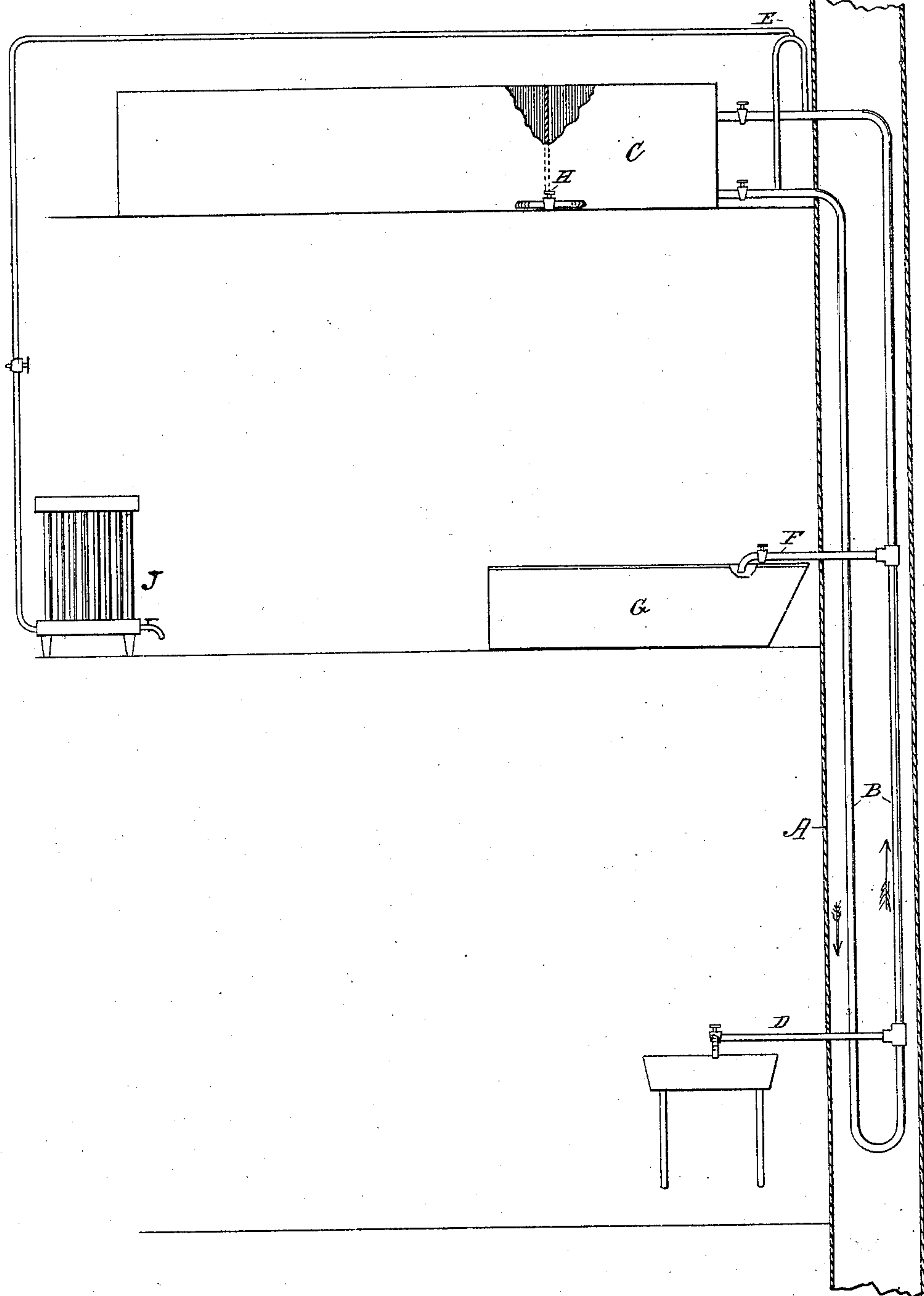
(No Model.)

H. M. WHEELER.

APPARATUS FOR UTILIZING THE WASTE HEAT OF STOVE PIPES AND
CHIMNEYS.

No. 284,106.

Patented Aug. 28, 1883.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HIRAM M. WHEELER, OF SMITHSON, INDIANA.

APPARATUS FOR UTILIZING THE WASTE HEAT OF STOVE-PIPES AND CHIMNEYS.

SPECIFICATION forming part of Letters Patent No. 284,106, dated August 28, 1883.

Application filed March 1, 1883. (No model.)

To all whom it may concern:

Be it known that I, HIRAM MOORE WHEELER, of Smithson, in the county of White and State of Indiana, have invented a new and useful Improvement in Domestic Boilers and Steam-Generators, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, forming part of this specification.

10 This invention relates to means for heating water or generating steam, which may be arranged in connection with an ordinary stove-pipe or chimney; and the invention consists of the novel construction hereinafter described and claimed.

The drawing is a section of a pipe or flue, showing the application of my invention.

15 A indicates a stove-pipe, flue, or chimney, and B is a water-pipe arranged in the flue A, and having its two ends communicating with the upper and lower parts, respectively, of a tank, C. In order to produce the necessary circulation of water through the pipe B, the pipe B is arranged to extend down the flue and then up to the tank again, so that the weight of the water and pressure of the air shall cause the pipe B to be filled, when the tank is properly supplied, and the heat will cause the water to pass up one arm of the said pipe and
20 down the other. My heating apparatus therefore provides for the location of the tank at a point above the source of heat, and is specially adapted for supplying hot water on any floor of a house not higher than the location of the tank. To provide for the supply of hot water on a floor below that on which the tank is placed, the pipe B is provided with a branch pipe, D, projecting through the stove-pipe or flue A at a point in the neighborhood of said
30 floor. By locating the tank at the upper part of the house and having the pipe B extend

down the chimney to or near the first floor, and providing a suitable number of cocks, hot water may be supplied on every floor. The capacity and heating-surface of the pipe B may be increased by forming coils therein.

E indicates an exhaust for the steam, and F is a branch pipe leading to a bath-tub, G. The tank may be divided into two or more compartments, communicating by suitable stops, H, in order that a portion of the water in the tank may be heated at a time.

If desired, the heating apparatus may be used as a steam-generator, suitable conducting-pipes being provided for distributing the same.

By connecting the two upper ends of pipe B by means of the exhaust E, and providing cocks between the exhaust and the tank, as shown in the drawing, steam may be generated in both ends of said pipe when the supply of water is limited by the lower cock, and if the upper cock is closed, the steam may be utilized for heating purposes by means of a radiator, J, to which the steam may be conducted by a suitable pipe, as shown.

I am aware that hot-water pipes have before been arranged in flues, and I do not claim this idea, broadly; but

What I claim is—

70 The combination of the water-heating pipe B, the exhaust E, connecting the ends of said pipe, the tank C, and cocks, located one in each branch of the pipe, between the exhaust and the tank, and the radiator J, connected to the exhaust E by a pipe, substantially as shown and described, and for the purpose set forth.

HIRAM M. WHEELER.

Witnesses:

JEROME WOOD,
HENRY BROTHERS.