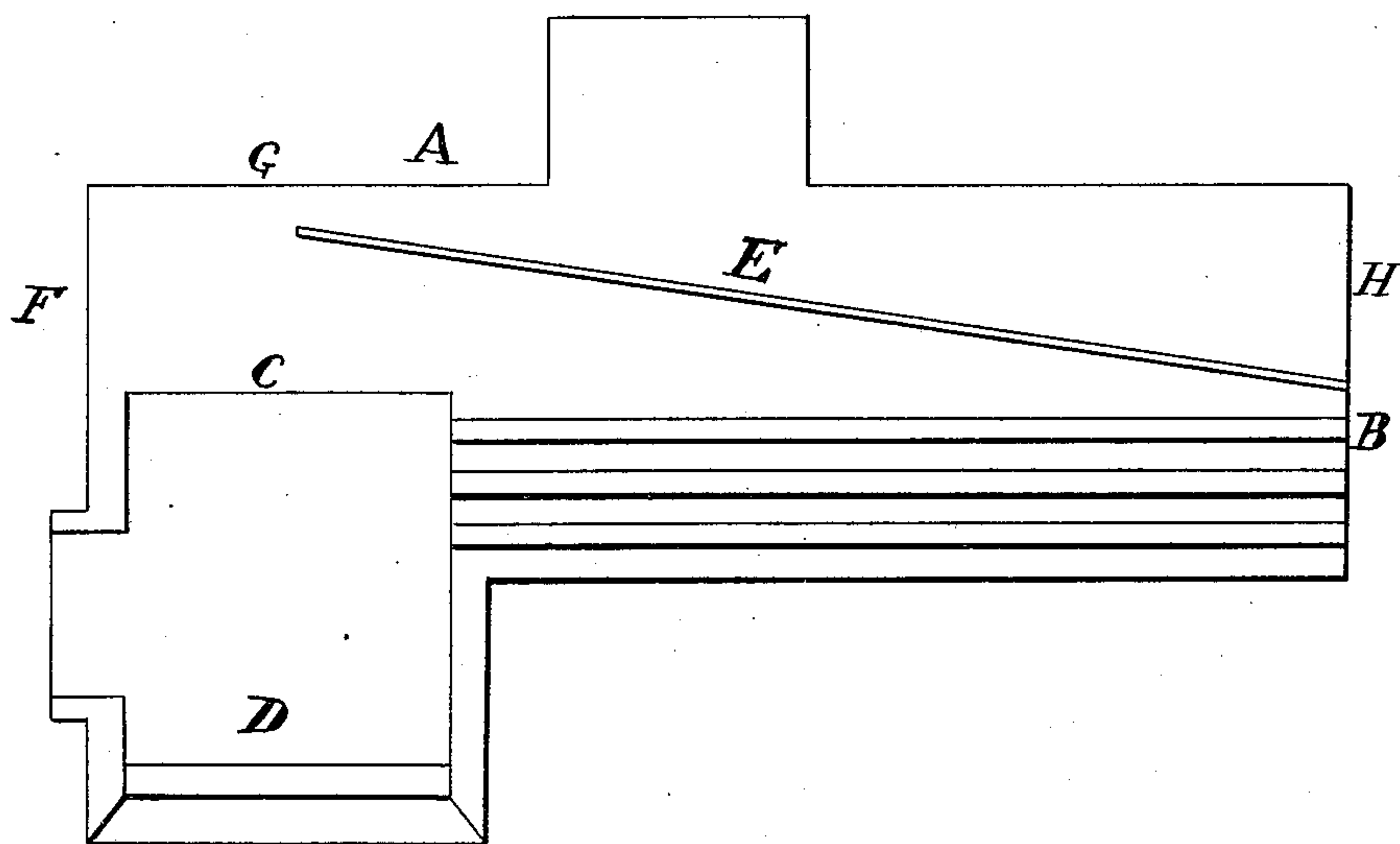


(No Model.)

J. BURNETT.
PORTABLE STEAM BOILER.

No. 262,568.

Patented Aug. 15, 1882.



WITNESSES:

William R. Brooks
Alonso Newton

INVENTOR:

Josiah Burnett

UNITED STATES PATENT OFFICE.

JOSIAH BURNETT, OF PHELPS, NEW YORK.

PORTABLE STEAM-BOILER.

SPECIFICATION forming part of Letters Patent No. 262,568, dated August 15, 1882.

Application filed April 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH BURNETT, a citizen of the United States, residing at Phelps, in the county of Ontario and State of New York, have invented a new and useful Improvement in Portable Steam-Boilers, of which the following is a specification, reference being had to the drawing hereto annexed.

My invention relates to that class of steam-boilers used with what are known as "portable" or "agricultural" engines mounted on wheels and moved from place to place about the country, and this being often done with fire in the furnace and steam up. When hills are being descended the inclination of the boiler causes the water to rush to the forward end thereof, frequently uncovering the crown-sheet, thus burning and greatly injuring the same, and often, it is believed, inducing explosions.

The object of my invention is to prevent or obviate this defect in such boilers as now constructed.

In the accompanying drawing, A represents in outline a sectional side view of the class of boilers referred to; B, the flues; D, the furnace; C, the crown-sheet.

My improvement consists of a partition plate or sheet, E, preferably inclined, as shown, starting at a point on the head H two or three inches above the forward end of the flues at B, and running backward and upward to a point over and about midway of the crown-sheet C, and within three to six inches (more or less) of the top sheet at G. The plate might be placed horizontal for a portion of its length, and then turn upward toward the front; but I prefer to incline it, as stated. This partition-plate may be of any suitable metal, and fastened to the head H and to the sides of the boiler as far as it extends, (being of the full width thereof,) either by rivets, screws, bolts, brazed or soldered, tongued, or by any other

suitable method to form a water-tight or nearly water-tight partition.

It will thus be readily seen that by this improvement whenever the boiler is inclined forward the water will be held back, and that by no ordinary pitching of the boiler can the crown-sheet be uncovered. It is believed also that the said partition adds to the efficiency of the boiler in its steam-making qualities. The boiler is also greatly strengthened thereby.

I am aware that partitions and separating-plates have been used in steam-boilers before.

The use of such, broadly, therefore I do not claim. Those used heretofore have been placed mainly in a horizontal direction through the boiler, fastened to it upon all sides, and provided with tubes and valves for communication. My invention, it will be seen, consists in the use of a smooth plate inclined at an angle in one direction with the boiler, with an open space at one end, and dispensing with tubes and valves.

I am also aware that a short inclined plate has been used in one end of the boiler to prevent the water foaming over into the steam-pipe; but such would be of no effect to prevent the uncovering of the crown-sheet. In my improvement the plate extends nearly the entire length of the boiler, and is efficient for the object aimed at.

What I therefore claim is—

In combination with a boiler, the smooth inclined partition plate or sheet E, extending nearly the entire length of the boiler, placed at an angle in one direction, fastened to the head H and to the sides of the boiler as far as it extends in a water-tight joint, substantially as and for the purposes herein set forth and described.

JOSIAH BURNETT.

Witnesses:

DOLPHIN STEPHENSON,
WILLIAM R. BROOKS.