Aug. 18, 1925. 1,549,813

A. SPRING ET AL

HEAD FOR CHIMNEYS, SMOKE PIPES, AND THE LIKE

Filed March 31, 1921

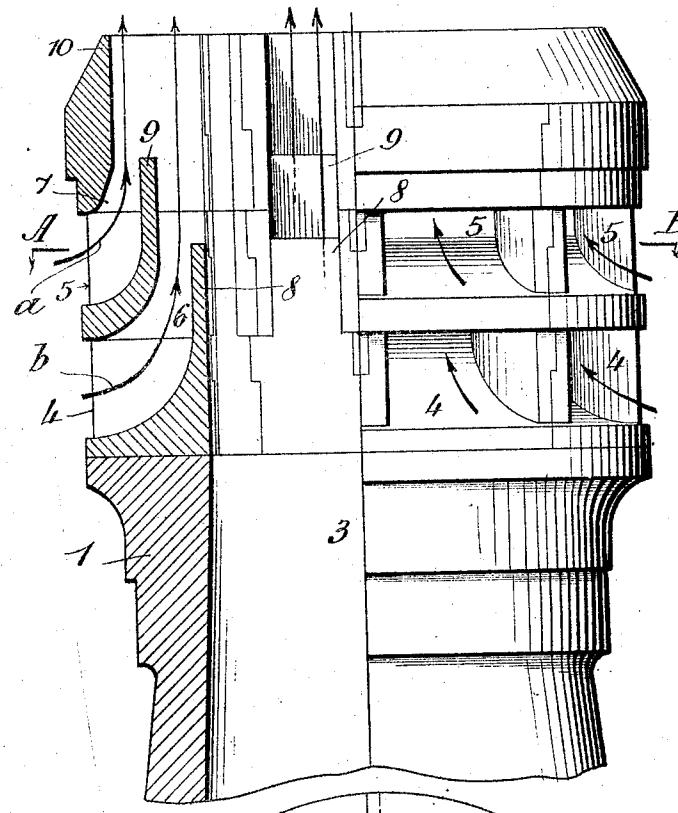


Fig. 1

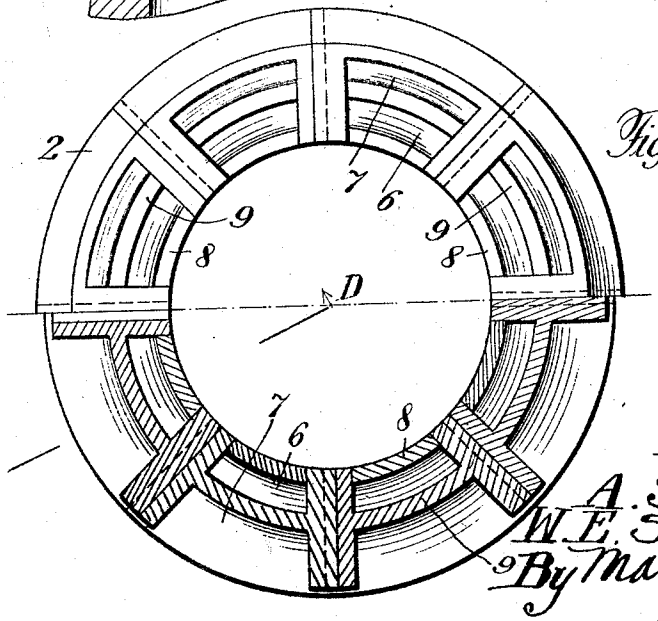


Fig. 2

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UNITED STATES PATENT OFFICE.

ARTHUR SPRING AND WALTER ERNST SPRING, OF THUN, SWITZERLAND; SAID ARTHUR SPRING ASSIGNOR OF HIS ENTIRE RIGHT TO GOTTLIEB BURGER-INDER-MÜHLE, OF THUN, SWITZERLAND.

HEAD FOR CHIMNEYS, SMOKE PIPES, AND THE LIKE.

Application filed March 31, 1921. Serial No. 457,453.

(GRANTED UNDER THE PROVISIONS OF THE ACT OF MARCH 3, 1921, 41 STAT. L., 1313.)

To all whom it may concern:

Be it known that we, ARTHUR SPRING and WALTER ERNST SPRING, citizens of the Republic of Switzerland, residing at Thun, Switzerland, have invented certain new and useful Improvements in Heads for Chimneys, Smoke Pipes, and the like (for which we have filed application in Switzerland May 17, 1919, Patent No. 86,340); and we do hereby declare the following to be a clear, full, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The invention relates to heads for chimneys, smoke pipes and the like. It is already known to arrange channels for supplying an air current to the upper ends of chimneys for instance in chimney-heads. Generally these channels conduct a current of air caused by a side wind in an inclined direction upwards towards the centre of the chimney or they conduct the air current to special channels adapted to generate a suction action on the smoke which are arranged laterally of the shaft of the chimney.

The object of the present invention is a head for chimneys, smoke pipes and the like, especially suitable to chimneys of ships, locomotives and the like where a high side wind is encountered. This head for chimneys shows the feature that in the upper end of the chimney lateral channels for conducting the wind are provided the upper portions of which are arranged parallel to the axis of the chimney and the ends of said channels being arranged in steps, one above the other from the inside to the outside of the chimney. In this manner the adverse wind is utilized for generating a rarefaction of air in the upper part of the chimney, which can be registered by a draught gauge for the purpose of regulating the draft in accordance with said registration.

A constructional example of the invention is shown in the accompanying drawing, in which:

Fig. 1 is a side view of the head for the chimney, partly shown in section along line C—D of Fig. 2;

Fig. 2 is a plan view, the lower half being a section along line A—B of Fig. 1.

The head is built on the chimney 1 by specially shaped bricks 2. 4 and 5 denote lateral channels arranged one above the other for conducting the wind, these channels end in channels 6 and 7 arranged parallel to the axis of the chimney. The inner walls 8 and 9 and the edge 10 of the chimney end in steps arranged one above the other from the inside to the outside of the chimney, whereby these conduits for the wind end within the shaft 3 of the chimney. In consequence of this arrangement wind that enters into the channels 4 and 5 in a lateral direction is diverted in the direction indicated by the arrows to flow parallel to the axis of the chimney. Thereby a rarefaction of the air is caused in the upper part of the head of the chimney and the air envelopes the pillar of smoke. The shape of the walls of the channels 4 and 5 may be any suitable one and the head of the chimneys may be constructed of different materials for instance concrete, sheet iron and the like.

We claim:

A chimney formed with a central vertical smoke shaft, a cap thereon having a central vertical shaft aligned with the smoke shaft, said cap having its walls formed with a plurality of superposed annular air passages having horizontal outer air receiving ends, said air passages having air discharge inner ends disposed vertically and parallel to the cap shaft and terminating one above the other, said discharge ends lying laterally outside the cap shaft whereby to produce an annular column of air to surround and withdraw the column of smoke in the chimney shaft.

In testimony that we claim the foregoing as our invention, we have signed our names.

ARTHUR SPRING.
WALTER ERNST SPRING.