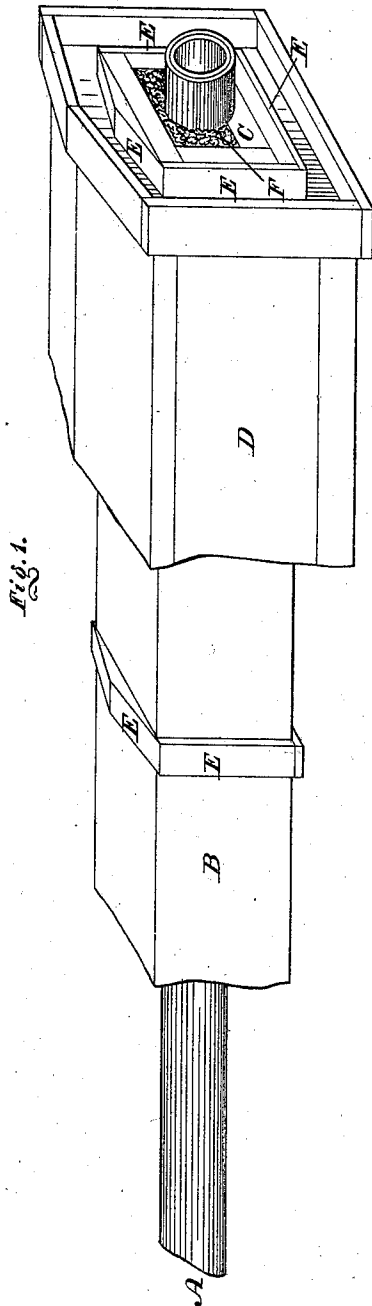
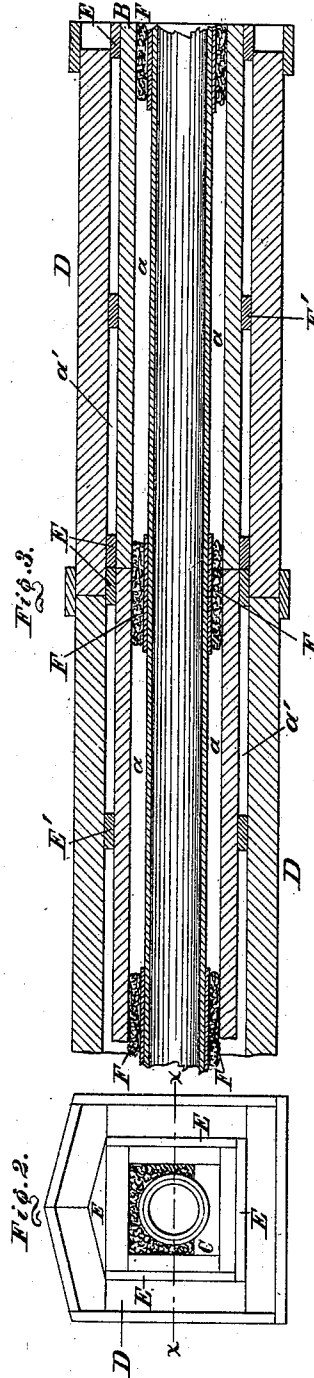


J. BROSIUS.
Steam-Conducting Pipe.

No. 226,834.

Patented April 27, 1880.



Witnesses:

J. A. Burtt.

H. F. Fischer

Inventor:

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UNITED STATES PATENT OFFICE.

JACOB BROSIUS, OF BELLEVILLE, ILLINOIS.

STEAM-CONDUCTING PIPE.

SPECIFICATION forming part of Letters Patent No. 226,834, dated April 27, 1880.

Application filed February 9, 1880.

To all whom it may concern:

Be it known that I, JACOB BROSIUS, a citizen of the United States, residing at Belleville, in the county of St. Clair and State of Illinois, have invented a new and useful Improvement in Insulating Steam-Conducting Pipes, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a perspective view of steam-conducting pipe laid according to my invention. Fig. 2 is an end view thereof. Fig. 3 is a horizontal section in line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to improvements in the method of insulating pipes adapted for conveying steam for power, heating, and other purposes; and it consists of the pipe, placed in a box which is formed in sections, the ends of which are packed so as to insulate each section and prevent the circulation of air in a current along the pipe, thus preserving the heat of the pipe.

It also consists of the pipe-inclosing box and an auxiliary surrounding box, with an air-space between them, which space is closed at intervals, or at the ends of the sections of the box, thus preventing circulation of air in said space and assisting to preserve the heat of the pipe.

Referring to the drawings, A represents lengths of pipe or tubing for conveying steam from the generator to any desired place for purposes of power, heating, &c., the same being inclosed in a wooden or other box, B, formed in sections and laid on cleats C on the floor of the box, there being an air-space, *a*, between the pipe A and box B.

Inclosing the sectional box B is a secondary box, D, with an air-space, *a'*, between them, and formed in sections at the ends of which are strips or blocks E, which surround the box B and fit snugly against the inner sides of the box D, so as to close the air-spaces at the ends of the sections of said box D, the bottom pieces of said blocks serving to support the inner box on the floor of the outer box.

Additional strips or blocks E' may be placed between the two boxes, intermediate of their

ends, so as to further divide the air-spaces *a'* of each section.

Surrounding the pipe A, at places coincident with the ends of the sections of the box B, is packing F, which closes the air-space *a* at intervals, or at the ends of the sections of the box B.

It will be seen that when the pipe and boxes are properly laid and the steam or heat is passed through the pipe, while the boxes are preserved by the air-spaces, radiation of heat is prevented, and moisture and cold are restrained, in a great measure, from reaching the pipe, all of which advantages are set forth in the Letters Patent of the United States No. 223,314, granted to me on the 6th day of January, 1880.

The following advantages are obtained from the present construction, viz: The air is prevented from circulating in the space *a* along the length of pipe A, and also in the space *a'*, thus preserving the heat of the pipe A, first, of such as enters the box B, and, next, that which escapes into the box D, instead of causing the carrying off of the same, as is otherwise occasioned, all the advantages of the two air-spaces, however, remaining.

The packing F is of hair-felt or other sufficiently compact but elastic substance, which forms tight joints at the ends of the sections of the box B, and conforms to the surface of the pipe A during the expansion and contraction of the same.

It is evident that the blocks E' employed between the ends of the sections may serve as additional partitions in the space *a'* for preventing circulation of air therein.

In order to protect the felt or packing from scorching the pipe A is wrapped or covered with asbestos or other suitable material at the contiguous places of the packing.

By these provisions of compartments or sections insulated one from the other the pipe A will be found to be reliable and serviceable for the purpose intended, and may be cheaply and quickly laid.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The sectional box B, inclosing the pipe

A, with the air-spaces *a* between them, and provided with closing - packing F, placed around the pipe at or about the ends of the sections of the box, so as to insulate the air-spaces *a* of the several sections one from the other, substantially as and for the purpose set forth.

2. The sectional box D, inclosing the box B, with the air-space *a'* between them, and provided with closing-blocks E at or about the ends of the sections of the boxes, so as to insulate the air-spaces *a'* of the several sections

one from the other, substantially as and for the purpose set forth.

3. The sectional box B and inclosed pipe A, with intermediate air-space *a*, and the closing-packing F, in combination with the sectional box D, with intermediate air-space *a'*, and the closing-blocks E, substantially as and for the purpose set forth.

JACOB BROSIUS.

Witnesses:

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