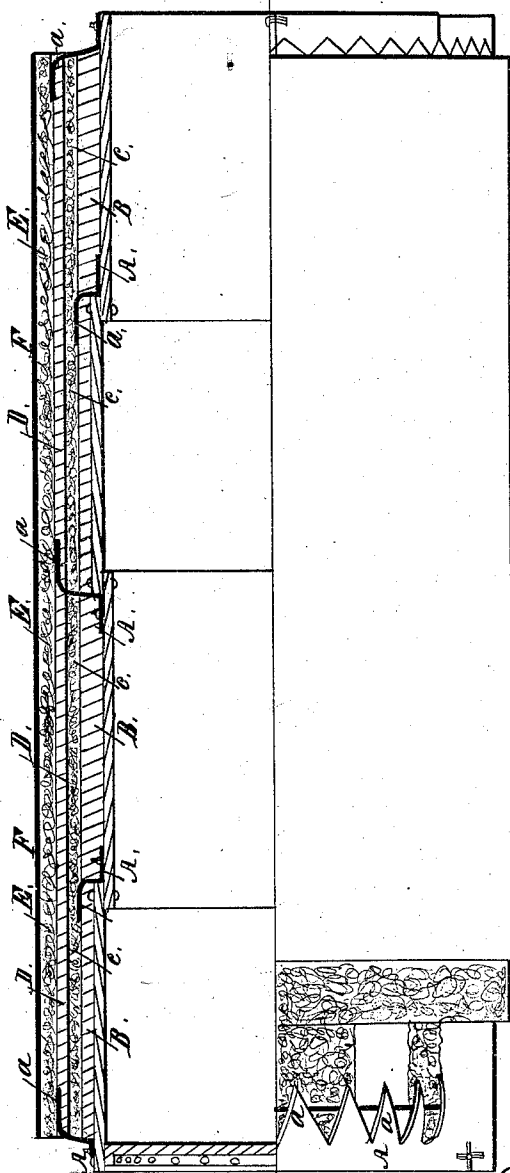


E. H. Ashcroft,
Steam-Boiler Covering.
N^o 70,388. Patented Nov. 5, 1867.



Witnesses:

Jos. L. Coombs
Theodore Lang

Inventor:

E. H. Ashcroft
by S. S. Rahnestock
att'y

United States Patent Office.

EDWARD H. ASHCROFT, OF LYNN, MASSACHUSETTS.

Letters Patent No. 70,388, dated November 5, 1867.

IMPROVED METHOD OF COVERING STEAM-GENERATORS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, E. H. ASHCROFT, of Lynn, in the county of Essex, and State of Massachusetts, have invented certain new and useful Improvements in Covering for Steam-Boilers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which represents, partly in section and partly in elevation, a steam-boiler constructed in accordance with my invention, the lower part of the same being cut away at one end.

My invention has for its object, so constructing steam-boilers, pipes, &c., that they will more effectually retain heat than those now in use, and thus economize fuel; and it consists in covering the outside of steam-boilers, pipes, &c., with certain materials to be hereafter described, the same being held by means of bands of sheet iron or other material, provided with points which may be bent in the form of hooks, and the whole is surrounded by a frame of sheet iron, or other suitable substance.

To enable others to make and use my invention, I will now proceed to describe the same by reference to the accompanying drawing.

A A are the bands encircling the boiler, provided with points *a a*, bent over, hook fashion, to which the cement B, (cement and hair) surrounding the boiler adheres. The cement I prefer using is hydraulic, or plaster of Paris. This, combined with hair, makes the layer B. Underneath this, and next to the boiler, I may place a layer of vulcanized rubber. Over this cement is a covering of hair-felting C, having a coating of glue which sticks the hair together. Then comes another layer of cement D, (cement and hair,) held by the hooks *a*, and covered by hair-felting E, the whole being surrounded by the sheet-iron frame F. The last layer of felt gives a good elastic basis for a close and tight fit for the sheet-iron frame, and also serves to give better protection to the boiler by helping to retain its heat.

The above arrangement is for locomotive boilers. For steamship boilers, I dispense with the outside covering of felt in order to give greater security against fire, but if felt is put on an additional covering of cement should be added. I may dispense with the two upper layers.

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

1. The combination and arrangement of bands A, hooks or points *a*, and cement layer B, substantially as shown and described, and for the purpose set forth.

2. The combination and arrangement of covering F, alternate layers E D C B, and bands A, constructed and operating in the manner substantially as shown and described, and for the purpose set forth.

E. H. ASHCROFT,

Witnesses:

EDWIN J. WRIGHT,

CHARLES E. ASHCROFT.