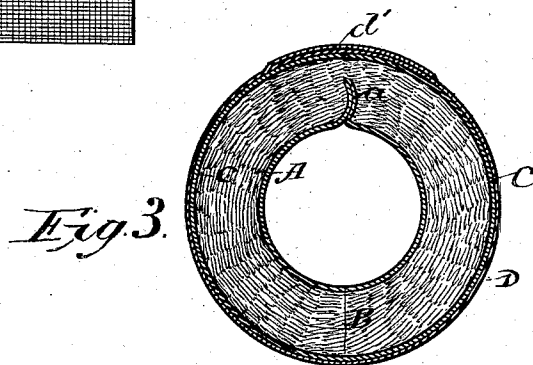
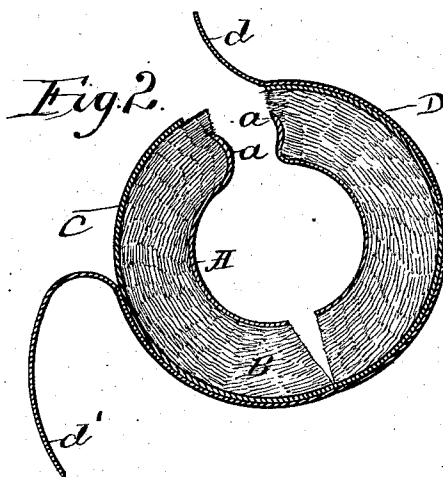
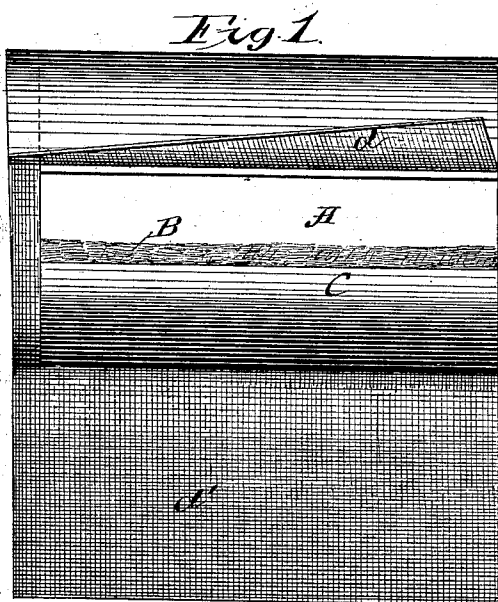


(No Model.)

T. MERRIAM.
Covering for Boilers.

No. 231,832.

Patented Aug. 31, 1880.



Witnesses:

E. Asmus
Charles F. Hunter

Inventor:

Thomas Merriam
by *S. S. Stout*
Attorney

UNITED STATES PATENT OFFICE.

TRUMAN MERRIAM, OF MILWAUKEE, WISCONSIN.

COVERING FOR BOILERS.

SPECIFICATION forming part of Letters Patent No. 231,832, dated August 31, 1880.

Application filed June 28, 1880. (No model.)

To all whom it may concern:

Be it known that I, TRUMAN MERRIAM, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Coverings for Pipes, Boilers, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to coverings for steam pipes and boilers, and is an improvement on the covering patented to me November 10, 1874.

In the drawings, Figure 1 is a top view; Fig. 2, a transverse section of a portion of the covering ready to be put on the pipe, and Fig. 3 a transverse section of it as if in place on the pipe and finished.

I make my covering in sections by first wrapping a piece of asbestos paper or board, A, about a former, through which I pass a current of steam or hot air. I now cover its exposed surface with cement, and leaving flanges *a a*, I cover the cemented surface of the asbestos with a layer of hair felt or mineral wool, B, of uniform thickness on all sides, and about this felt or paper I wrap a layer of heavy paper, C, cemented on its inside, the paper and asbestos clasping the felt or mineral wool between them, and as the felt or mineral wool is made to adhere to the paper and asbestos by the cement, there will be no danger of its falling down in upright pipes to pack in the lower parts and leave the upper parts empty. About the paper I cement a layer of heavy cloth, D, covered with cement from a point directly opposite the flanges *a*, about three-fourths of the circumference of the covering, leaving flaps *d d'*. I then place an outside former over the whole and allow it to remain until the section is dried, after which I take it off in perfect shape and in condition to be applied to the pipe by any intelligent workman, as follows: Draw the flanges *a a* sufficiently wide apart to admit the pipe between them, and slip the section onto the pipe. The elasticity of the covering will then cause the edges to close together again. Press down the flap *d*, and cement it over the joint, and then *d'* over that, when that section will be finished. The next section is put on in a like manner and the joint made air-tight by cement and cloth, and so on.

In covering for small pipe the asbestos, felt, or mineral wool should be cut clear through

to the paper, and in very large pipes or boilers the asbestos, felt, or mineral wool and paper should be made in distinct longitudinal sections and united on the pipe or boiler by the cemented cloth.

My improved covering may be used either with or without a dead-air chamber, and I find by experience that the heat of the pipe will cause the cement to permeate the asbestos and render it insoluble in water, and almost if not fully as durable as iron, while asbestos paper or board alone would separate and lose its cohesive qualities when exposed to dampness from leakage.

When I desire to use this covering with a dead-air chamber I construct a square cord of mineral wool incased in asbestos, and wrap it about the boiler spirally to support the covering out from it.

Paste of any kind may be substituted for the cement in my covering without departing from the spirit of my invention, and instead of felt or mineral wool alone I may use both together, and instead of cementing it on only one side, I can cement the asbestos on both sides.

What I claim as my invention is—

1. A covering for steam pipes, boilers, &c., consisting of an inner layer of asbestos paper or board and an outer layer of paper, both covered on their adjacent surfaces with cement and clasping between them hair felt or mineral wool, in combination with an outer covering of cloth cemented to the paper and having overlapping flaps, as described, the whole shaped upon a former and dried, as set forth.

2. The covering for steam pipes, boilers, &c., consisting of the inner layer of asbestos having flanges *a a*, in combination with the outer layer of paper, both cemented, as described, an intermediate layer of felt or mineral wool held in place by the cement on the paper and asbestos, and the outer covering of cloth having flaps *d d'*, the whole shaped and dried upon a former, through which is passed a current of hot air or steam, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of April, 1880.

TRUMAN MERRIAM.

Witnesses:

S. S. STOUT,
GUS LIPMAN.