(No Model.)

LA FAYETTE ALDRICH.

STEAM PIPE AND BOILER COVERING.

No. 340,691. Patented Apr. 27, 1886.

Fig. 1

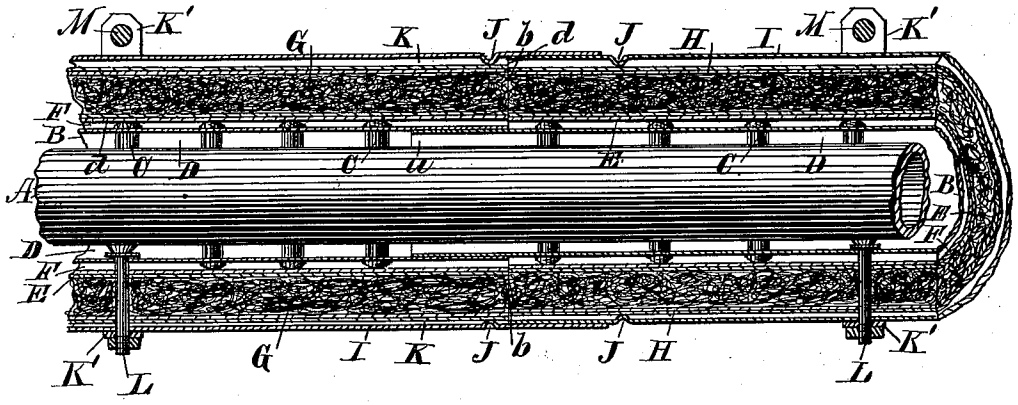
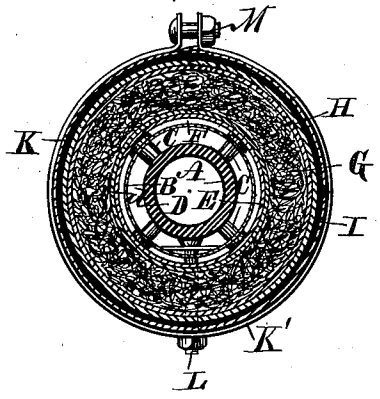


Fig. 3



Fig. 2



Witnesses
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LA FAYETTE ALDRICH, OF MILWAUKEE, WISCONSIN.

STEAM-PIPE AND BOILER COVERING.

SPECIFICATION forming part of Letters Patent No. 340,691, dated April 27, 1886.

Application filed June 25, 1885. Serial No. 169,728. (No model.)

To all whom it may concern:

Be it known that I, LA FAYETTE ALDRICH, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Steam-Pipe and Boiler Coverings; and I do hereby declare the following to be a full, clear, 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.

My invention relates to improvements in steam-pipe and boiler coverings; and it pertains to the devices for supporting the covering at a distance from the surface of the boiler or pipe, the peculiar arrangement of the several layers of the covering, and the manner of forming the several separate non-circulating or dead-air spaces between the pipe or boiler and the exterior surface of the covering.

My improvements are explained by reference to the accompanying drawings, in which Figure 1 represents a longitudinal section of the covering surrounding the pipe. Fig. 2 is a cross-section through the pipe and covering, and Fig. 3 one of the supporting-studs.

Like parts are represented by the same reference-letters in all the views.

A is a steam-pipe. B is a sheet-metal plate, which is bent to conform to the exterior shape of the pipe or boiler which it surrounds, and the same is supported at a slight distance from the pipe by the elongated heads of the studs or rivets C, which are secured in holes formed therein at suitable distances apart in said sheet metal B by riveting or upsetting them slightly, as shown, thereby forming an air-space, D, between the pipe and said first sheet-metal plate B. Upon the outer ends of the rivets C, between the sheet metal E and felt, one or more sheets of lining, preferably of asbestus paper *d*, is placed. Between the sheet E and the plate B a second air-space, F, is formed. Upon the asbestus paper *d* is placed next in order a thick packing of felt, G, which in turn is surrounded with thick paper H, and upon the paper H is an exterior cover, I, formed of tin, zinc, or other sheet metal, which covering I is preferably provided with inward-projecting corrugations J, which rest upon the paper H and support the cover I at a slight distance from the paper, thus forming a third air-space, K, between the pipe and exterior covering.

The inner section of the sheet-metal covering B is overlapped by the outer section at *a*. The ends of the sheets of felt are joined at *b* at the end of the outer section, B. The inner section of the outer sheet metal, I, is overlapped by the outer sheet at *d* on a line with the contiguous ends of the felt. By thus overlapping and breaking the joints of the sheet metal and felt a more perfect and substantial joint is formed, which prevents the escape of the heated air from the several air-spaces.

The several sheets of metal, paper, and the felt packing are held together by the metallic bands K′ and bolts L.

When the covering is all arranged and secured together, it is placed around or upon the pipe or boiler, and thus securely fastened by the bands K′ and bolts M, and as the nuts are turned down on said bolts M the exterior edges of the sheet-metal cover overlap each other until the contiguous edges of the felt and paper are brought into close contact, thus forming a closely-fitting joint at the junction of the sides of the covering, as well as at its ends.

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

1. In a boiler-covering, the combination, with the first sheet-metal wall surrounding the boiler or steam-pipe, of the studs C, having elongated heads extending inward toward and resting upon the surface of the boiler or pipe, and bodies of less diameter extending through said sheet metal and riveted down against its exterior surface, substantially as and for the purpose set forth.

2. In a covering for steam-pipes or boilers, the combination of the sheet-metal plate B, supporting-studs C, adapted to rest upon the boiler or pipe and support said plate B at a distance therefrom, sheet E, resting upon the outward ends of said studs, asbestus paper *d*, felt G, sheet H, and exterior cover, I, substantially as set forth.

3. The combination, with the steam-pipe A, of the covering consisting of the several sheets of metal, paper, and felt, the supporting-studs C, secured in the inner sheet-metal plate and supporting the same at a distance from the pipes or boilers, bolts L, securing the several parts of the covering together, bands K' K', secured to said covering by said bolts L, and bolts M, as adapted to draw the ends of said bands together and secure the covering in place around the pipe, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

LA FAYETTE ALDRICH.

Witnesses:
JAS. B. ERWIN,
C. T. BENEDICT.