July 31, 1923. 1,463,298

E. SPICER

COVERING FOR BOILERS, PIPES, AND THE LIKE

Filed Nov. 23, 1921

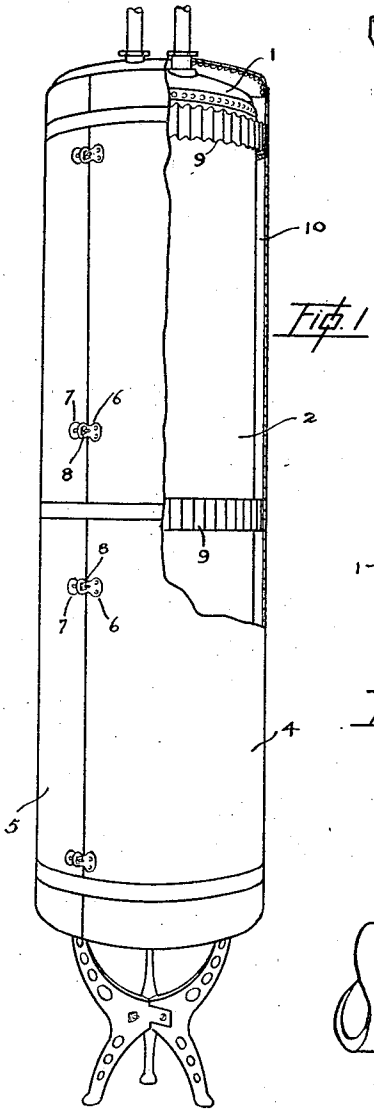


Fig. 1

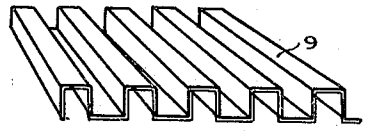


Fig. 7

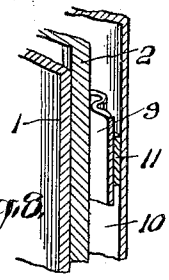


Fig. 8

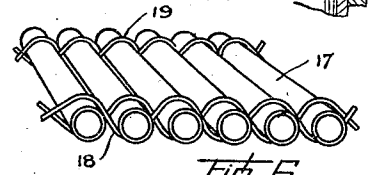


Fig. 6

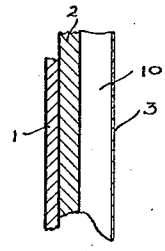


Fig. 5

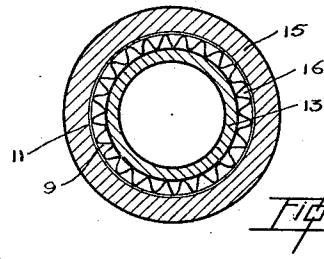


Fig. 4

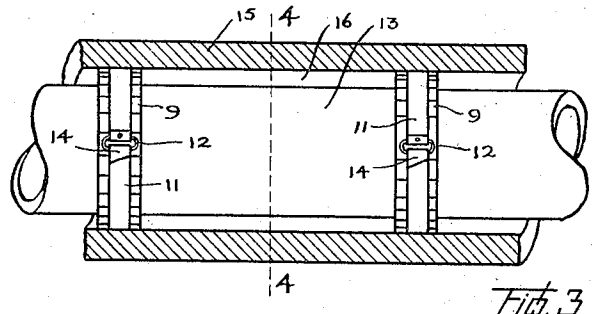


Fig. 3

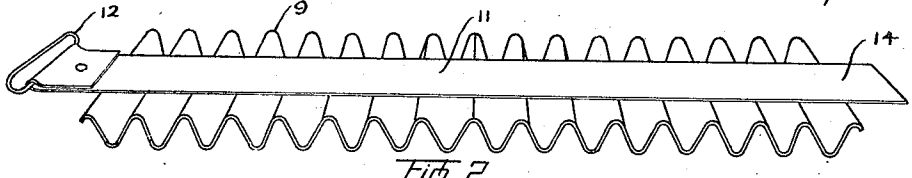


Fig. 2

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UNITED STATES PATENT OFFICE.

EDWARD SPICER, OF VANCOUVER, BRITISH COLUMBIA, CANADA.

COVERING FOR BOILERS, PIPES, AND THE LIKE.

Application filed November 23, 1921. Serial No. 517,301.

To all whom it may concern:

Be it known that I, EDWARD SPICER, a subject of the King of Great Britain, and a resident of the city of Vancouver, in the Province of British Columbia, Canada, have invented certain new and useful Improvements in Coverings for Boilers, Pipes, and the like, of which the following is a specification.

My invention relates to improvements in covering for boilers or other analogous purposes, and the object of my invention is to provide a covering so constructed and arranged that its outer surface is maintained at all times cool while at the same time a finished and attractive appearance is rendered possible.

I attain this object by the construction illustrated in the accompanying drawings in which—

Fig. 1 is an outside elevation of a covered boiler, in part section.

Fig. 2 is a detail view of the spacing band.

Fig. 3 is a fragmentary view showing the covering applied to a pipe.

Fig. 4 is a cross sectional view taken through the line 4—4 of Fig. 3.

Fig. 5 is an enlarged fragmentary sectional view showing a portion of the boiler shell and the covering.

Figs. 6 and 7 are views illustrating modified constructions of the spacing band.

Fig. 8 is another enlarged fragmentary sectional view showing a portion of the boiler shell and covering; the outside cover spaced by strip of Fig. 2.

Similar figures of reference indicate similar parts throughout the several views.

In carrying out the invention, referring now to Fig. 1, in which the boiler is indicated by the numeral 1, an asbestos layer 2, of the designed thickness, is first applied to the boiler to cover the same, and then around this asbestos covering is placed a cover of rigid material, such as sheet metal, indicated generally by the numeral 3, formed out of two semi-circular portions 4 and 5 connected together by lugs 6 and 7 through which are passed bolts 8, on the inside of which semi-circular portions are secured corrugated metal bands 9, of similar construction to that shown in Fig. 2 with or without the connecting strip shown therein, or according to the modified construction illustrated in Fig. 7, from which it will be seen that when the cover 3 is placed in position the corrugated bands 9 will bear on the asbestos covering 2 and space the metal cover 3 from it so that an air space 10 is formed between the two coverings the provision of which air spaces ensures that the outer cover is maintained cool, since the heat from the boiler and the asbestos does not pass to it.

In pipe covering, such as is illustrated in Fig. 3, the corrugated bands 9 are mounted on and secured to a thin metal strip 11 the ends of which are extended beyond the corrugated strip, one end being provided with an eye 12 so that when the bands are placed around the pipe, indicated by the numeral 13, they may be secured in position by passing the free end 14 of the strip 11 through the eye 12, pulling the band tight, and then bending back the end 14 to grip the eye, as illustrated in Fig. 3. Thus when the outer covering 15, of magnesia, or asbestos, or any other analogous material is placed around the pipe it is spaced therefrom by the corrugated bands, on which it rests, so that an air space 16 is provided all round the pipe between it and the outer covering 15 which is thus maintained cool. In the case of an asbestos outer covering, which is softer than a covering of magnesia, the strip 11, in addition to providing a tightening and securing means for the corrugated band, also forms a support for the asbestos to prevent it squeezing into the corrugations of the band.

A modified construction of the spacing band is illustrated in Fig. 6 and which consists of a plurality of pipe sections 17 of any desired length and diameter connected together towards their opposite ends by crossed wires 18 and 19, there being as many sections wired together as will make up the length of band necessary to go around the boiler, or the pipe, as the case may be, and the bands of this construction are secured in position by twisting together the ends of the wires, which are left projecting a suitable distance beyond the last section at each opposite end.

From the foregoing it will be seen that I have devised a covering for boilers, pipes, or the like the construction of which is such that when assembled its outer surface is maintained cool at all times.

What I claim as my invention is:—

1. A covering for boilers comprising a

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layer of heat insulating material laid directly on and wrapped tightly around the boiler shell of a thickness designed to prevent heat radiation from the shell, flexible corrugated bands wrapped around said layer with the corrugations disposed longitudinally of it, and a metal casing surrounding the boiler and spaced from the heat insulating layer by the bands, said casing being capable of being tightened whereby the layer is frictionally held to the boiler shell and the layer, bands, and casing frictionally held one to the other.

2. For use in boiler or pipe covering, a corrugated strip capable of being formed into a band, and a flat strip secured to one side of the corrugated one projecting beyond the latter at its opposite ends, one of said ends being provided with an eye through which the opposite end may be passed.

3. The combination with a boiler and a casing therefor, of an interposed spacing band presenting inner and outer corrugated surfaces, and means interposed between the band and the casing to exclude the material of the latter from the spaces between the corrugations of the band.

4. The combination with a boiler and an inclosing casing of an interposed spacing band presenting inner and outer corrugated surfaces and a fastening strip for the band secured to the outer surface thereof, and serving to prevent pressing or squeezing of the casing into the corrugations of the band.

5. A structure according to claim 4, in which the said strip is divided and provided with means for securing the divided ends together to tighten and fasten the band in position.

6. A spacing spring for interposition between a boiler and a heat insulating covering comprising a transversely corrugated metal band and a metal strip applied to and extending around the outer corrugated side of the band.

Dated at Vancouver, B. C., Canada, this 15th day of November, 1921.

EDWARD SPICER.

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