C. DOINO.

HEAT INSULATING COVERING FOR PIPES.

APPLICATION FILED JULY 14, 1920. RENEWED SEPT. 27, 1921.

1,411,960. Patented Apr. 4, 1922.

Fig. 1.

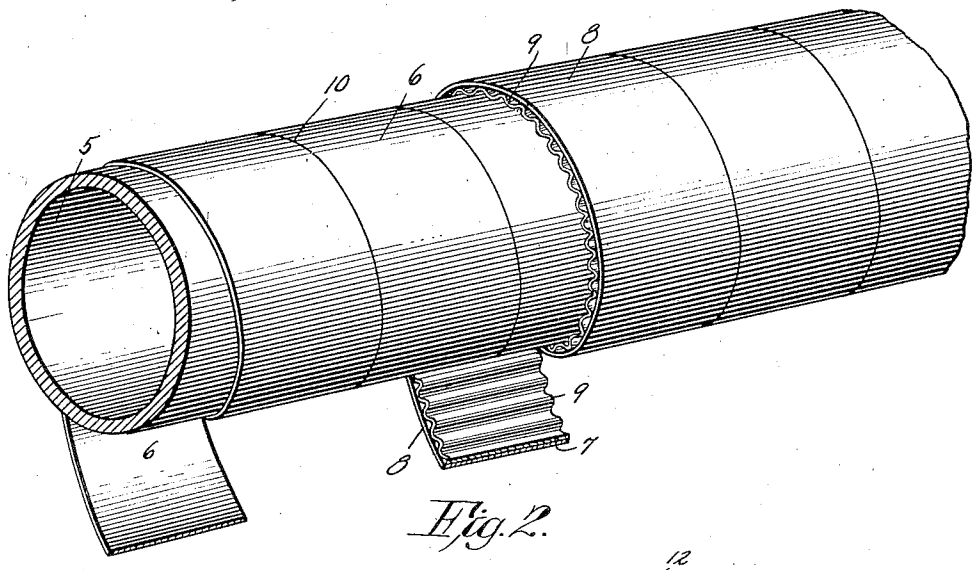


Fig. 2.

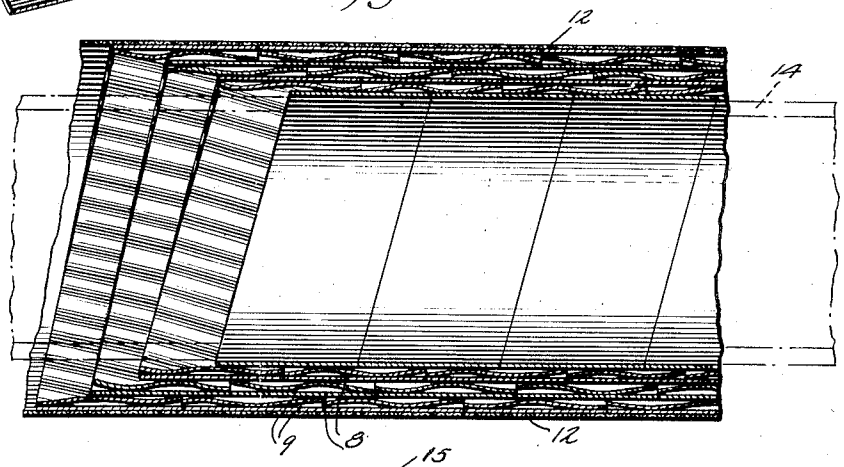
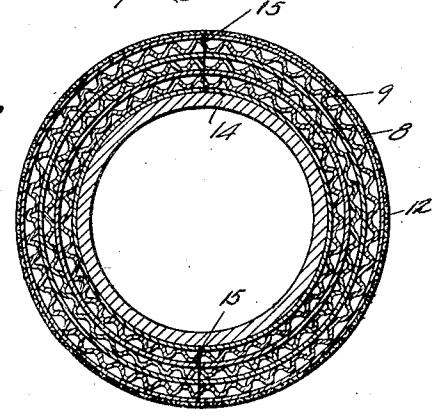


Fig. 3.



WITNESSES

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HEAT-INSULATING COVERING FOR PIPES.

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Application filed July 14, 1920, Serial No. 396,150. Renewed September 27, 1921. Serial No. 503,589.

To all whom it may concern:

Be it known that I, CARMINE DOINO, a citizen of the United States and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Heat-Insulating Covering for Pipes, of which the following is a full, clear, and exact description.

The present invention relates to new and useful improvements in coverings for pipes and it pertains more particularly to heat insulating coverings for steam, hot water, and similar pipes.

It is the primary object of the invention to so construct a covering for pipes of this character as to greatly facilitate the rapidity with which these coverings can be manufactured.

It is a further object of the invention to provide a covering for pipes which will be more easily manufactured than the coverings at present used, thus reducing the cost of manufacture thereof.

Referring to the drawings—

Figure 1 is a perspective view showing one of the steps in the manufacture of the device;

Fig. 2 is a longitudinal sectional view therethrough;

Fig. 3 is a transverse sectional view showing the device in its applied position.

Referring to the drawings, and more particularly to Fig. 1, the reference character 5 designates a suitable tube or mandrel about which the covering is formed, and this tube or mandrel is adapted to be rotated or driven in any desired manner. The reference character 6 designates the base of the covering and said base comprises a strip of suitable paper of sufficient thickness to lend body to the covering when wrapped. This paper is wrapped about the mandrel 5 in spiral form, as shown in Fig. 1.

The reference character 7 designates a corrugated paper formed of suitable heat-resisting material, such as asbestos, and it will be noted that this corrugated paper comprises a flat body 8 upon which a corrugated strip 9 is secured. In the present instance the strips 7 of corrugated material are so formed that the corrugations of the sections 9 thereof extend transversely of the strip, by which construction it will be apparent that as the strip is wound spirally around the paper body formed from the strip 6, the corrugations provide air spaces which extend longitudinally of the body portion of the covering.

In wrapping the strip 7 about the paper body 6, the strip 7 is so positioned as to overlap the joints 10 formed by the spiral winding of the strip 6 forming the body.

The covering may be built up of any number of thicknesses of corrugated strips 7, in the present instance the thickness comprising three strips 7. It is to be understood, however, that a greater or lesser number of strips may be employed as deemed desirable.

In winding the corrugated strips 7 about one another to build up the structure, the corrugations are preferably disposed inwardly in such a manner as at all times to present a smooth surface upon the outside of the pipe either for the successive corrugated strips to be wound thereon or for the finishing cover of the pipe.

After the structure has been built up to the desired thickness, an outer covering, such as cheese-cloth or other suitable material, is wrapped about the exterior layer, said outer covering being designated by the reference character 12.

It is further to be noted that in building up the device, each layer or section formed from a corrugated strip is secured to the preceding layer to which it is attached by means of an adhesive, such as silicate or the like, and that the finishing covering 12 is likewise secured to the outer strip in a similar manner.

After the covering has been completely formed, the same is split longitudinally as at 15, in order that it may be passed around a pipe, which latter is shown by dotted lines in Fig. 2 and indicated by the reference character 14, and in full lines in Fig. 3. After the covering has been placed around the pipe, it is secured thereto in any desired manner as by means of bands or any other suitable device.

What is claimed is:

1. A heat insulating covering for pipes comprising a body portion formed of corrugated strips spirally wound in lapped joint relation to each other, the corrugations of said strips extending transversely thereof.

2. A heat insulating covering for pipes comprising a body portion formed of a spirally wound strip of paper, a plurality of strips of corrugated paper wound about

the first mentioned strip in lapped joint relation thereto, the corrugations of said corrugated strips extending transversely thereof to provide air spaces extending longitudinally of the body portion of the covering.

3. A pipe covering comprising an inner tubular member formed from a strip of paper spirally wound, a plurality of layers of corrugated paper formed from strips, the corrugations of which extend transversely of the body portion, adhesive means for securing said layers together, and a covering means adapted to enclose the several wound strips forming the pipe covering.

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