I. L. MARSH.

PIPE COVERING.

APPLICATION FILED JAN. 2, 1920.

1,355,083. Patented Oct. 5, 1920.

Fig. 1

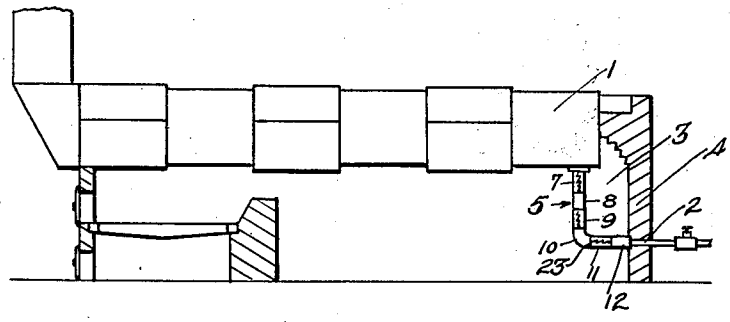


Fig. 2

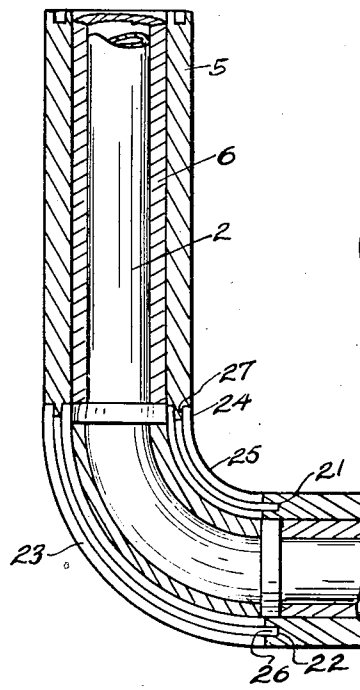
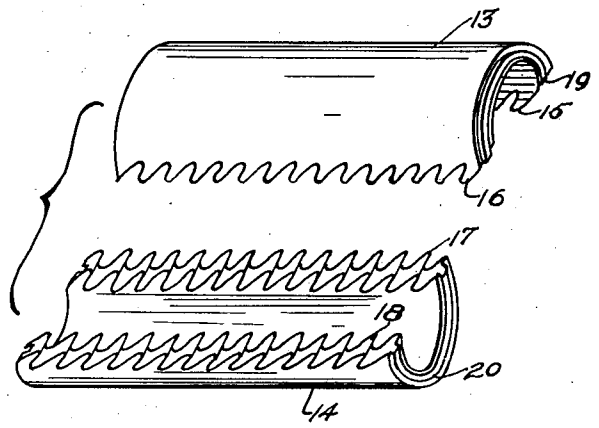
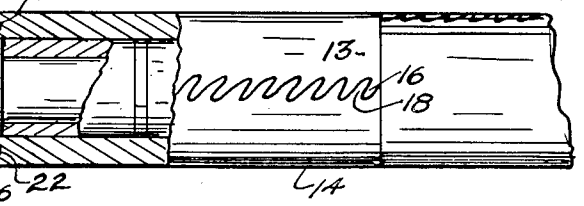


Fig. 3





INVENTOR.

I. L. Marsh

BY

Hazard & Miller

ATTORNEYS

UNITED STATES PATENT OFFICE.

ISOM L. MARSH, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF TO ALLAN A. ANDERSON, OF LOS ANGELES, CALIFORNIA.

PIPE-COVERING.

1,355,083. Specification of Letters Patent. Patented Oct. 5, 1920.

Application filed January 2, 1920. Serial No. 349,110.

To all whom it may concern:

Be it known that I, ISOM LEE MARSH, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Pipe-Coverings, of which the following is a specification.

This invention relates to pipe coverings and consists of the novel features herein shown, described and claimed.

Broadly, my invention relates to a pipe covering wherever a pipe covering is needed.

Specifically, my object is to make a fire proof pipe covering for the blow-out pipes of steam boilers.

Figure 1 is a fragmentary sectional elevation of a steam boiler and furnace showing a pipe covering embodying the principles of my invention applied to the blow-out pipe.

Fig. 2 is a fragmentary sectional detail upon an enlarged scale showing the pipe covering applied to the blow-out pipe.

Fig. 3 is a perspective showing two mating sections of the pipe covering ready to go together.

Usually, in a steam plant the boiler 1 has a blow-out pipe 2 extending downwardly from the bottom of the boiler through the back of the furnace chamber 3 and outwardly through the furnace back 4. The blow-out pipe 2 is necessarily in the heated area of the chamber 3 and it is necessary to protect the pipe from being highly heated and thus rapidly destroyed. It has been usual to build a wall of fire brick to protect this pipe, but this wall takes up considerable space in the furnace. The chamber 3 is hard to build and maintain and is otherwise objectionable.

The specific object of my invention is to apply the fire proof pipe covering 5 to the blow-out pipe 2 so far as it extends into or through the chamber 3, and the details of the fire proof covering 5 are as follows:

The blow-out pipe 2 is covered with the usual pipe covering 6, said pipe covering 6 being especially designed to insulate the pipe and prevent or reduce radiation, and not well calculated to exclude heat. The fire proof pipe covering 5 is, or may be applied around the covering 6; the special function of the covering 5 being to exclude heat and protect the covering 6 and protect the pipe 2.

The fire proof pipe covering 5 is formed in lengths 7, 8, 9, 10, 11, 12 and so on. The lengths 7, 8, 9, 11 and 12 are substantially alike and are constructed as shown in Fig. 3. Each length is formed in two sections 13 and 14 meeting on diametrical longitudinal lines, each piece being substantially half a circle in cross section. Teeth 15 and 16 are formed along the straight edges of the section 13 and mating teeth 17 and 18 are formed along the straight edges of the section 14. The teeth 15 and 16, and 17 and 18 are oppositely inclined and fit together like gear teeth so that the sections go together with oblique movement, and so that when the sections are held from endwise movement upon each other the sections are interlocked.

These sections 13 and 14 are cast of fire clay and are thick enough and strong enough to stand the high heat of the furnace. Arcuate tongue beads 19 and 20 extend from corresponding ends of the mating sections 13 and 14, and grooves 21 and 22 are formed in the opposite ends of the sections so that the tongues of one section will fit in the grooves of the end of an adjacent section, and when the opposite sections have been intermeshed and the lengths applied to the pipe and pushed endwise together to bring the tongues and grooves together, the tongues and grooves will be used for holding the sections from separating laterally.

The length 10 is an elbow and is made in two mating side sections 23 and 24 fitting together sidewise, the meeting faces 25 of the sections 23 and 24 being tongue and grooved. The elbow sections are made right and left and have a tongue 26 on one end and a groove 27 on the other end.

In applying the pipe covering as in Fig. 1, the elbow sections are first applied then the sections of the lengths 9 and 11 are applied and pushed toward the elbow sections, and when the tongue 26 enters the grooves 21 and 22 of the length 11 and the tongues 19 and 20 of the length 9 enter the groove 27, the lengths 9 and 11 hold the elbow sections together.

After the fire proof pipe covering 5 has been applied it may be held from endwise

reciprocation in any suitable way and this will hold the covering securely in place.

Various changes may be made without departing from the spiirt of my invention as claimed.

I claim:

1. A pipe protective covering comprising sections of protecting tubing, each section consisting of separable halves meeting on longitudinal diametrically opposite edges; the longitudinal edges of the halves of each section being provided with teeth arranged transversely and bodily inclined toward one end of the section.

2. A pipe protective covering comprising sections of protecting tubing, each section consisting of separable halves meeting on longitudinal diametrically opposite edges; the longitudinal edges of the halves of each section being provided with teeth arranged transversely and bodily inclined toward one end of the section; the coördinate sections having interlocking means on their contiguous ends to prevent lateral separation of the halves of the sections.

3. A pipe protective covering comprising sections of protecting tubing, each section consisting of separable parts meeting on longitudinal edges; the longitudinal edges of the parts of each section being provided with teeth arranged transversely and bodily inclined toward one end of the section.

In testimony whereof I have signed my name to this specification.

ISOM L. MARSH.