

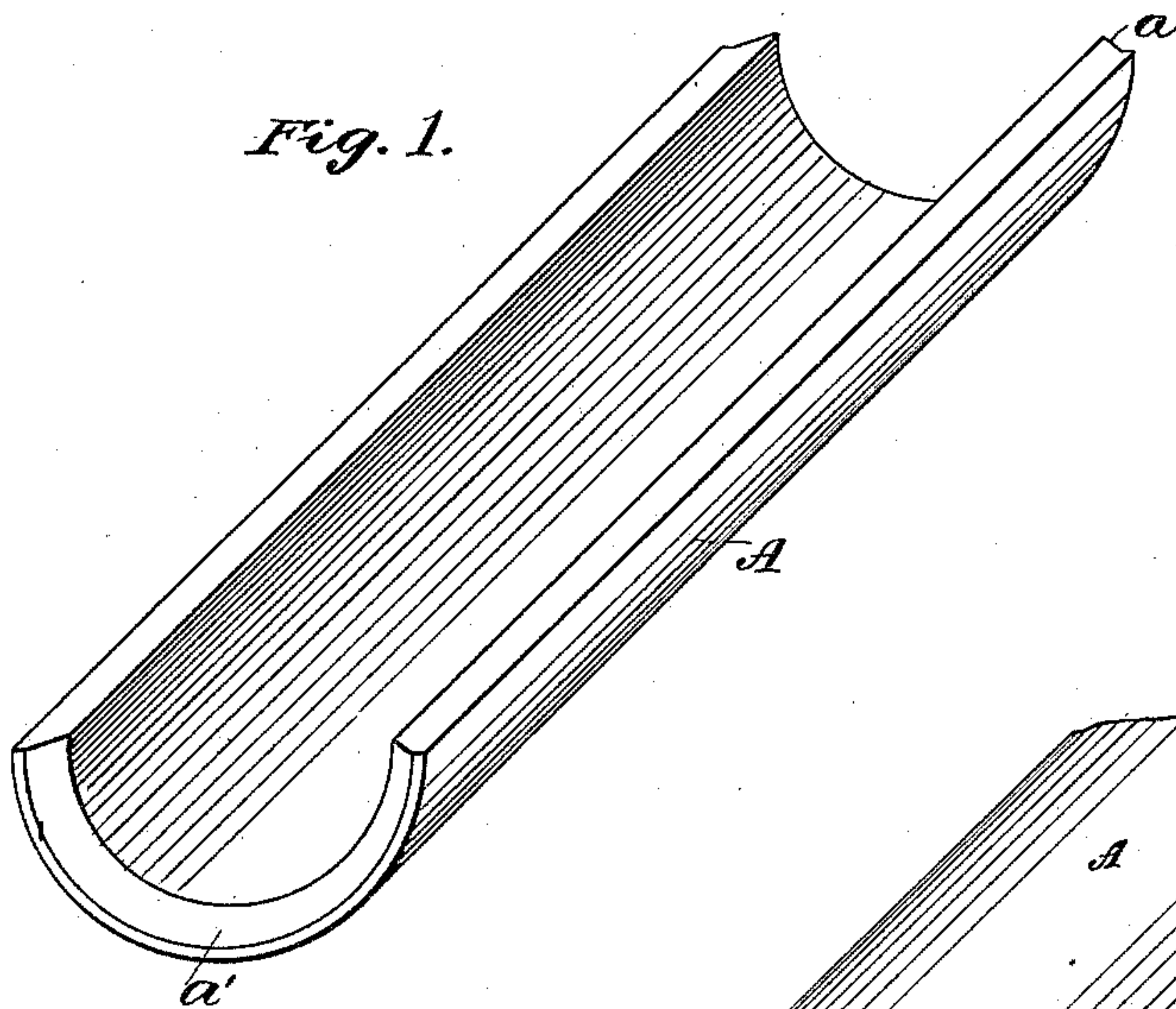
(No Model.)

H. M. HANMORE.  
COVERING FOR PIPES.

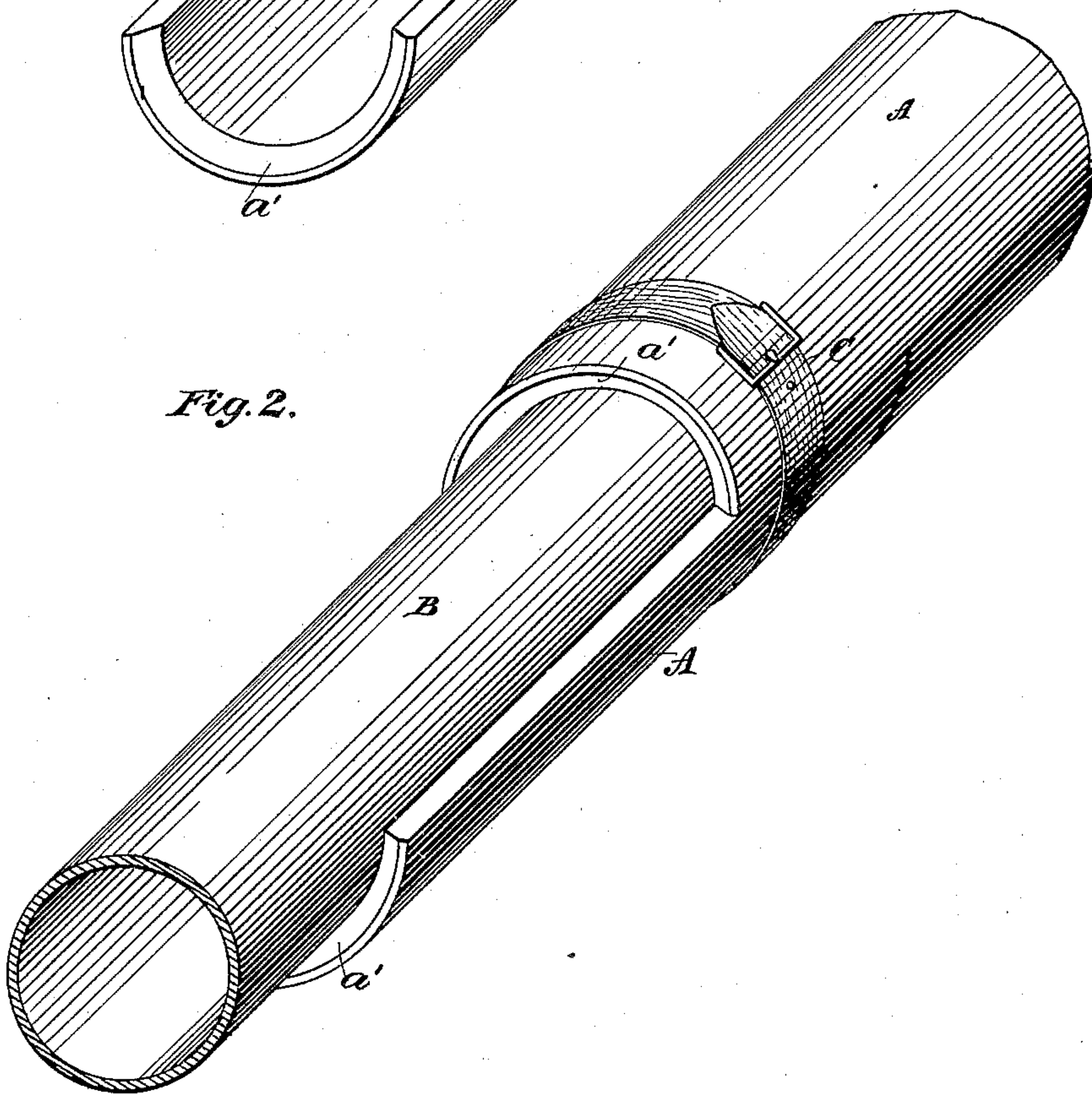
No. 432,162.

Patented July 15, 1890.

*Fig. 1.*



*Fig. 2.*



Witnesses:-  
O. H. Hayward  
O. Sundgren

Inventor:-  
Hiram M. Hanmore  
by his attorneys  
Brown & Griswold

# UNITED STATES PATENT OFFICE.

HIRAM M. HANMORE, OF SANTA CRUZ, CALIFORNIA.

## COVERING FOR PIPES.

SPECIFICATION forming part of Letters Patent No. 432,162, dated July 15, 1890.

Application filed March 4, 1890. Serial No. 342,575. (No model.)

*To all whom it may concern:*

Be it known that I, HIRAM M. HANMORE, of Santa Cruz, in the county of Santa Cruz and State of California, have invented a certain  
5 new and useful Improvement in Coverings for Pipes, &c., of which the following is a specification.

My improvement relates to coverings for pipes, boilers, and other articles which are  
10 employed as non-conductors of heat.

I will describe a covering embodying my improvement in detail, and then point out the novel features in the claim.

In the accompanying drawings, Figure 1 is  
15 a perspective view of a portion of a covering embodying my improvement. Fig. 2 is a similar view showing the method of applying the covering to a pipe.

Similar letters of reference designate corresponding parts in both figures.

In making my covering I take so-called "fossil-meal," which consists principally of silicate skeletons of the peat-plant and chalk, and preferably wash it to remove the chalk,  
25 or a large portion thereof. With the fossil-meal I mix carbonate of magnesia and water, thoroughly stirring the same and adding a fiber, which may be of any suitable kind, either mineral, animal, or vegetable—such,  
30 for instance, as cotton, jute, hair, or asbestos. When the fiber has been thoroughly mixed with the fossil-meal and carbonate of magnesia, I mold the mass into suitable forms for the purpose required. The forms are then  
35 dried. After being dried they are smoothed down by any convenient means, so as to present even and true edges and surfaces.

In the example of my improvement shown the covering is formed into semicircular sections A, one of the ends of which is provided  
40 with angularly-extending or bevel portions *a*, while the other ends are provided with undercut or beveled surfaces *a*. When the sections of the covering are placed together about a pipe B, the bevel portion *a* upon a section  
45 will extend into and contact with the undercut or bevel surface *a'* upon the next adjacent section. When the sections have been placed about a pipe, they may be secured in  
50 position by means of a strap C, passing about their exteriors, or otherwise, as desired.

A pipe or boiler covering made according to my improvement is hard and firm and presents sharp edges, which admit of the sections being fitted tightly together, thus preventing  
55 loss of heat between the joints. It may be sawed or cut in any desired manner and possesses non-heat-conducting properties to a high degree. I have found that a good proportion for the mixture is, say, about seventy  
60 pounds washed fossil-meal, twenty pounds carbonate of magnesia, and ten pounds of fiber, with a suitable quantity of water to make a pasty mixture.

What I claim as my invention, and desire  
65 to secure by Letters Patent, is—

A covering for pipes, boilers, and similar articles, made of fossil-meal, carbonate of magnesia, and fiber, substantially as specified.

HIRAM M. HANMORE.

Witnesses:

F. W. MAKINNEY,  
H. E. MAKINNEY.