

(No Model.)

J. S. BRIEAN.  
NON CONDUCTING COVERING.

No. 302,823.

Patented July 29, 1884.

FIG. 1

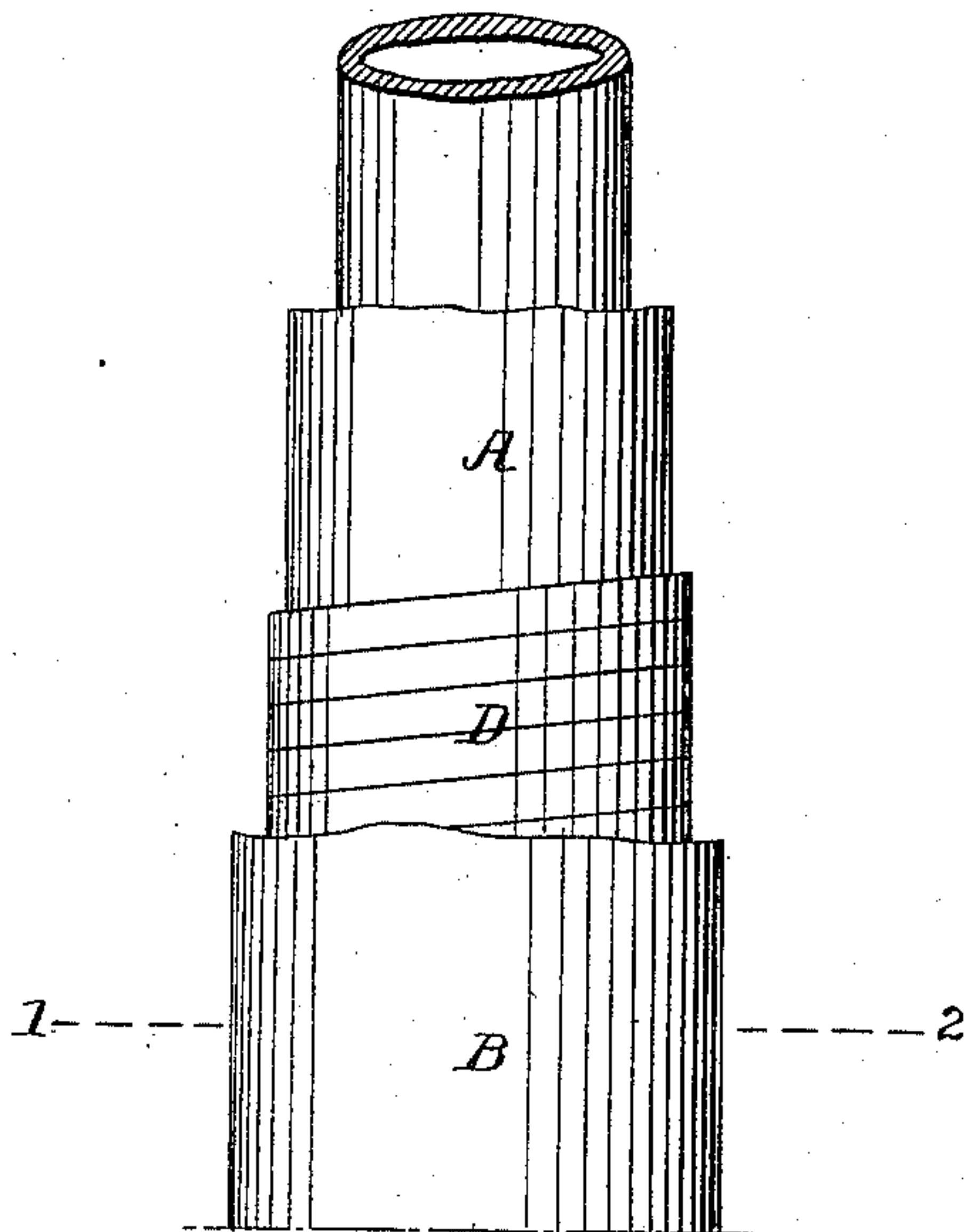
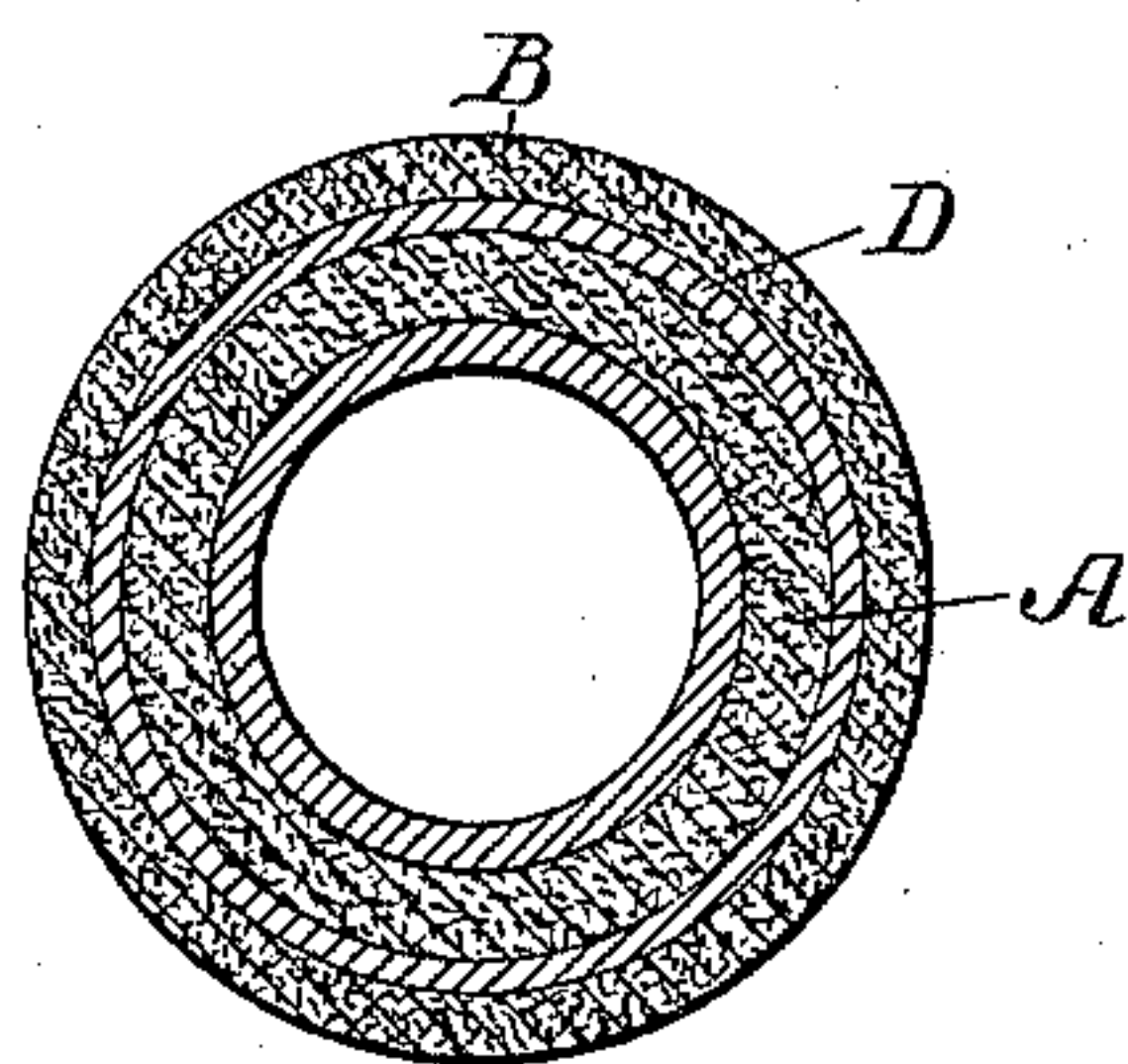


FIG. 2.



Witnesses  
John M. Clayton  
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by his Attorneys  
Howson & Sons

# UNITED STATES PATENT OFFICE.

JOSIAH S. BRIEAN, OF BERLIN, NEW JERSEY, ASSIGNOR OF ONE-HALF TO  
GEORGE E. WHEELER, OF WILMINGTON, DELAWARE.

## NON-CONDUCTING COVERING.

SPECIFICATION forming part of Letters Patent No. 302,823, dated July 29, 1884.

Application filed June 16, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOSIAH S. BRIEAN, a citizen of the United States, residing in Berlin, Camden county, New Jersey, have invented certain Improvements in Non-Conducting Coverings, of which the following is a specification.

The object of my invention is to produce a cheap coating which will adhere firmly to the pipe or other object to which it is applied, will not be injured by the heat to which it is subjected, and will effectually prevent the loss of heat by radiation.

In the accompanying drawings, Figure 1 is a side view of a pipe with my improved non-conducting covering, and Fig. 2 a sectional plan on the line 1 2.

The covering comprises an inner coating, A, applied directly to the pipe, an outer coating, B, and an intermediate spiral wrapping of a strip of textile material, D. The outer coating, B, consists of mica, wood pulp, jute or flax, and wheat-middlings, in about the following proportions: wood pulp, two bushels; mica, one bushel; jute or flax, two quarts; wheat-middlings, four pounds. The inner coating, A, is the same as the outer coating, with the exception that one-half bushel of flue-soot is substituted for the wheat-middlings. The wood pulp is a cheap base for the composition, and with the mica and wheat-middlings forms a smooth homogeneous composition with good non-conducting qualities. The

wheat-middlings comprise about two-thirds ( $\frac{2}{3}$ ) flour and one-third ( $\frac{1}{3}$ ) bran, the flour serving, when moistened, to cement the mass together, while the bran, when the compound is dry, forms cells or dead air spaces throughout the covering. The jute or flax serves to bind the composition together, and prevents the cracking and breaking off of the same, which would result if the compound were in the form of a hard, brittle cement. The use of the soot in the inner coating, A, serves to increase the heat-resisting qualities of the compound, the employment of wheat-middlings in this coating being unnecessary, as the coating is protected by the spiral wrapping and outer coating, and hence is not subjected to any rough usage tending to fracture the same.

I claim as my invention—

1. A non-conducting covering consisting of wood pulp, mica, flax or jute, and wheat-middlings, combined in proportions substantially as set forth.

2. A non-conducting covering consisting of wood pulp, mica, flax or jute, and flue-soot, combined in proportions substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOSIAH S. BRIEAN.

Witnesses:

HARRY SMITH,  
HENRY HOWSON, Jr.