

A. MULLER.

Manufacture of Asphalt Pipes.

No. 143,922.

Patented Oct. 21, 1873.

Fig. 1.

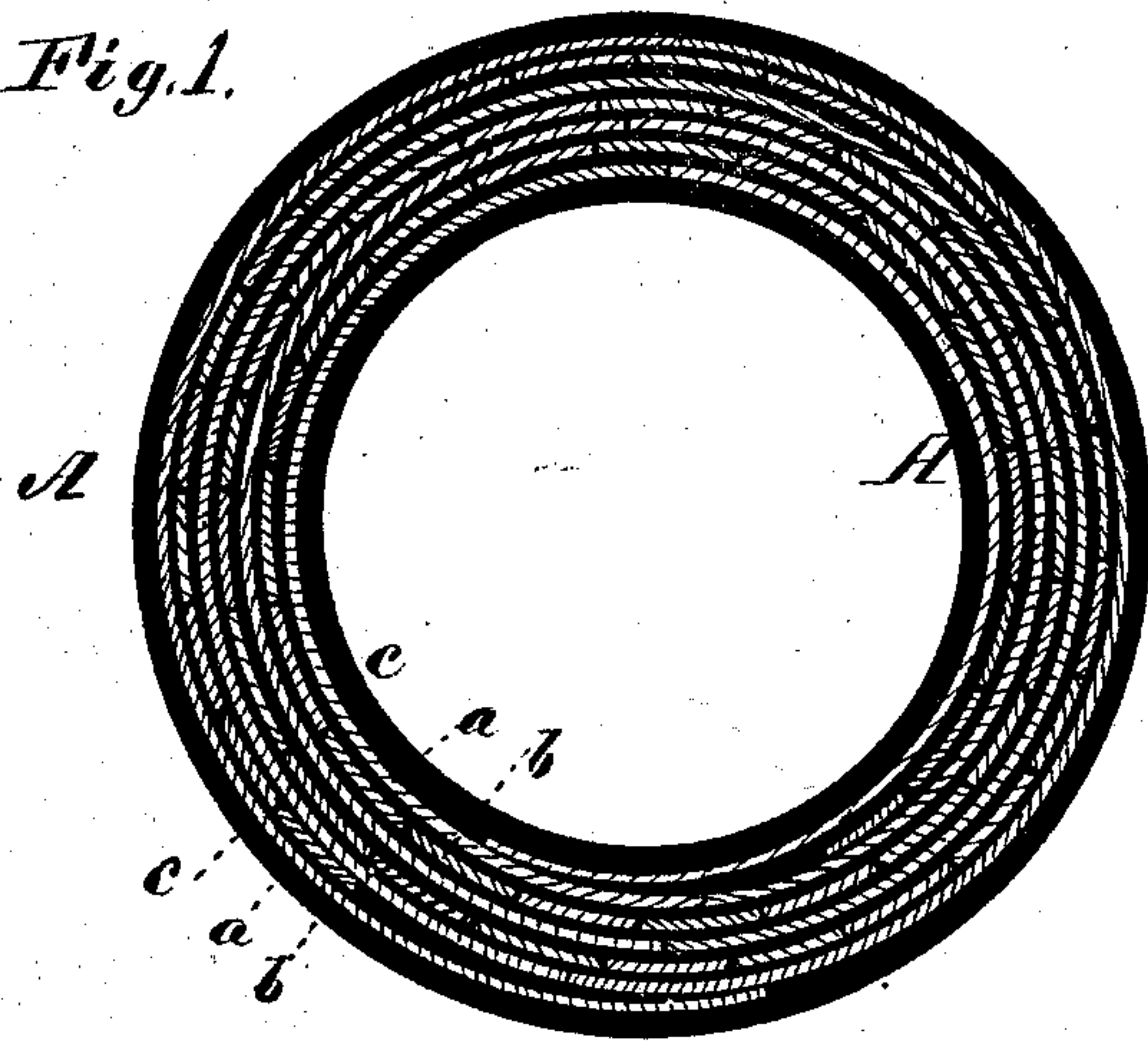
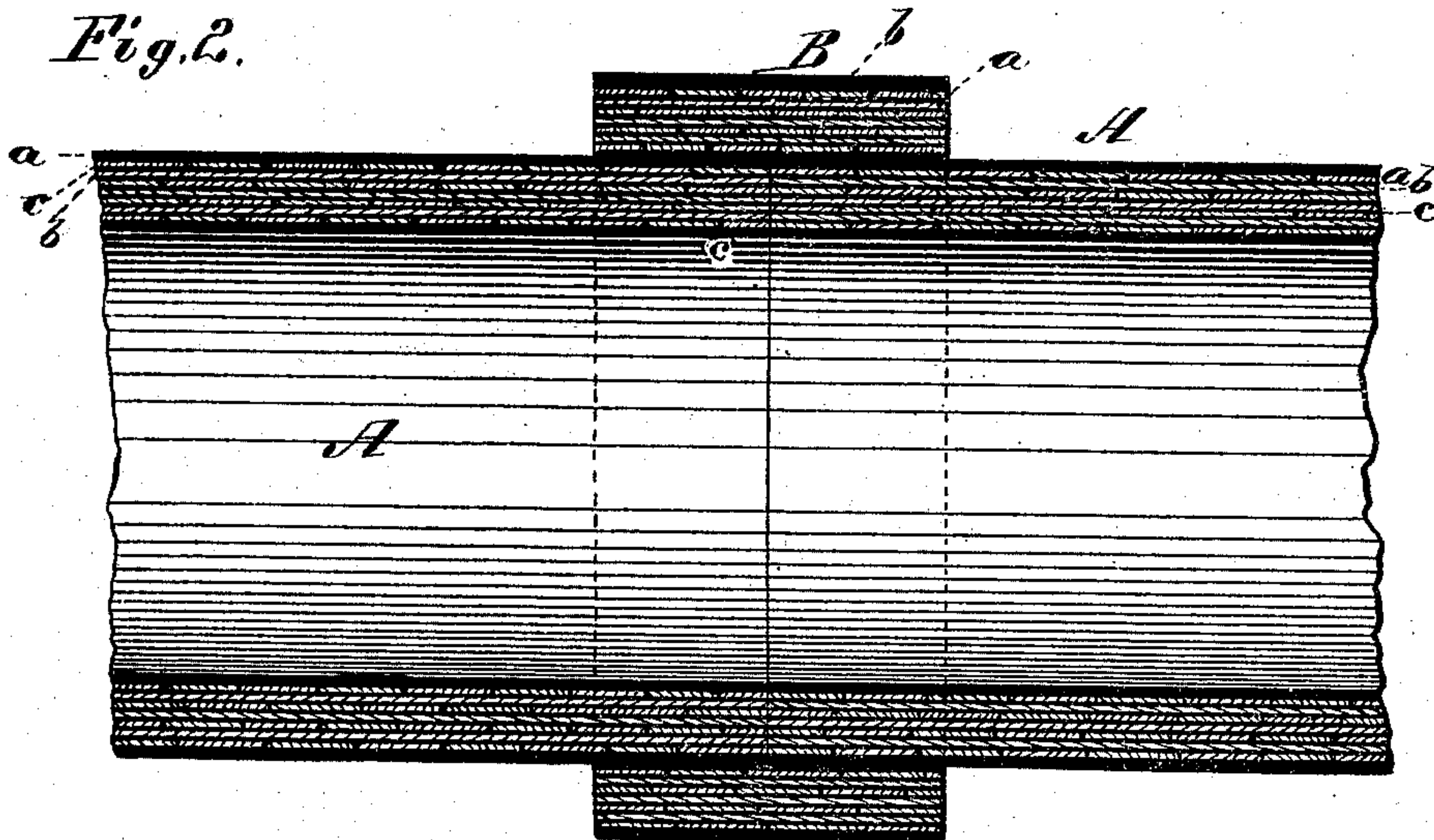


Fig. 2.



Witnesses.
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Phill. Masi.

Inventor.
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Fig. 3.

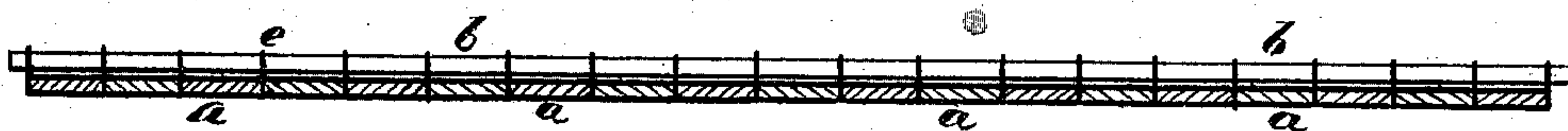
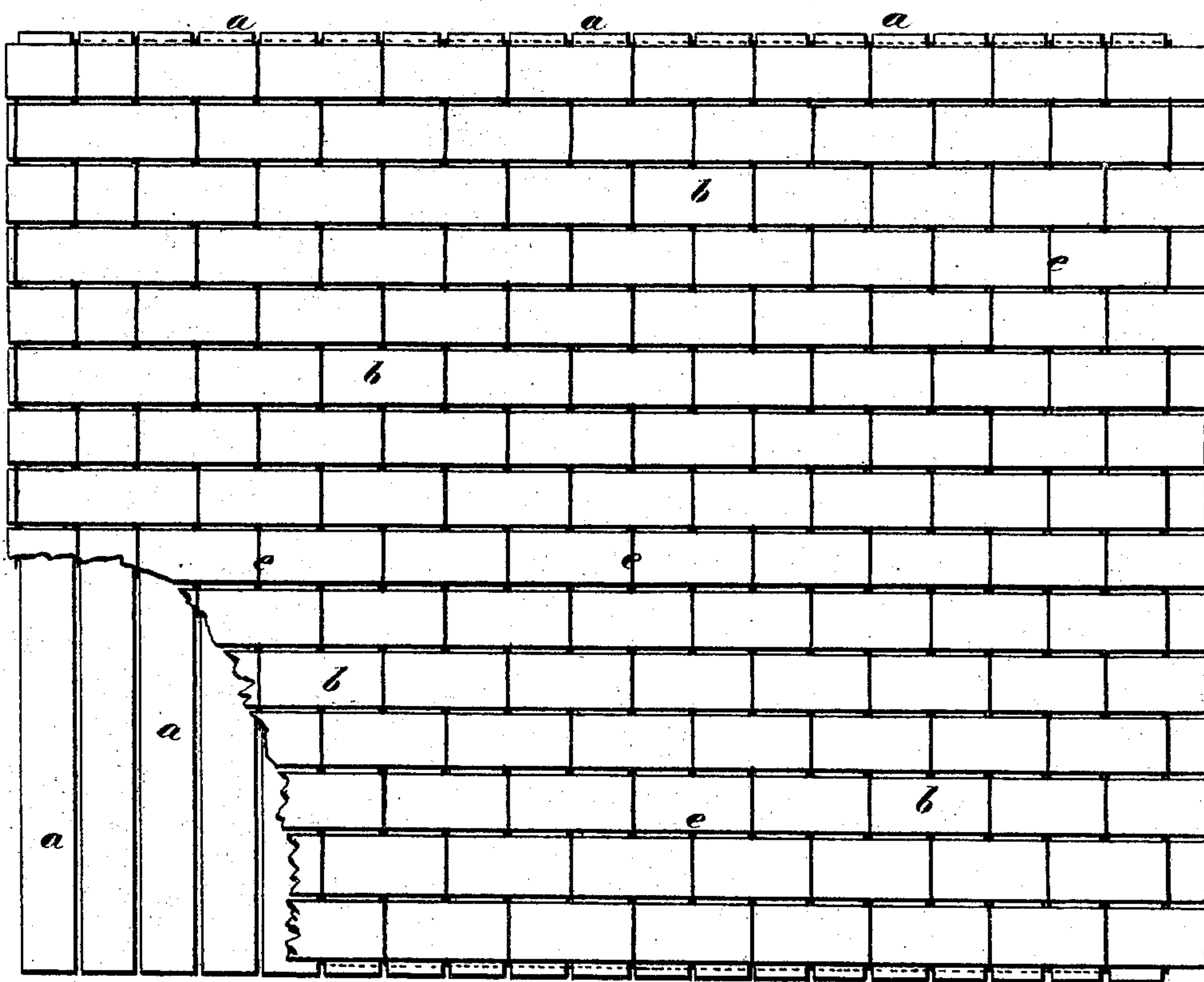


Fig. 4.

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UNITED STATES PATENT OFFICE.

ADOLPH MÜLLER, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN THE MANUFACTURE OF ASPHALT PIPE.

Specification forming part of Letters Patent No. **143,922**, dated October 21, 1873; application filed September 20, 1873.

To all whom it may concern:

Be it known that I, ADOLPH MÜLLER, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and valuable Improvement in Asphalt and Veneer Piping; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a transverse section of my pipe. Fig. 2 is a longitudinal section of same. Fig. 3 is a view of the veneer sheets of same. Fig. 4 is a section of the sheet.

This invention relates to improvements in the manufacture of pipes which are composed of layers of veneers and asphaltum; and it consists in the construction of a pipe of strips of wood veneers sewed together in two layers at right angles and coated with asphalt, substantially as hereinafter described and claimed.

In the annexed drawings, A A represent two rows of my improved pipe-section, which are connected together by means of a coupling-sleeve, B, of proper length to form a good substantial joint.

To prepare the pipe I take narrow strips of wood veneers of proper length to form a pipe-section, and lay them together so as to form a sheet composed of two thicknesses with the grain of the wood of one thickness crossing the grain of the wood of the other thickness at right angles. This arrangement of the strips is represented by Fig. 3, wherein *a b* are the two layers of crossed strips, *a* being the longitudinal strips, and *b* the transverse binding-strips. The two layers *a* and *b* are adjusted

close together and then sewed, as shown by the letter *c*, after the manner of sewing "venetian-blind" slats. This sewing holds the slats in their proper places, and in a great measure prevents their buckling or cockling during the operation of winding the sheet upon a mandrel to form the pipe. The next step is to thoroughly impregnate the wood with asphaltum while in a heated state, which strengthens it and preserves it from decay, and at the same time unites the two layers by an interposed layer of the asphaltum. The next step is to coat the surfaces of the sheet thickly with asphaltum, which is done by immersing the sheet in a bath of heated asphaltum of such a consistence that it will thickly adhere to both sides of the sheet and leave layers *c* between the sheet in the pipe, as shown in Figs. 1 and 2, and also leave a thick and smooth coating internally and externally of the pipe when formed.

Pipes thus made may be united by a coupling-sleeve, B, by warming the cement lining therein and forcibly pressing the ends of the pipe-sections into it.

What I claim as new, and desire to secure by Letters Patent, is—

A pipe constructed of strips of wood veneers sewed together in two layers at right angles and coated with asphalt, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ADOLPH MÜLLER.

Witnesses:

URBAIN A. GRAIN,
HUDSON CLARKE.