

(No Model.)

G. KELLY.

LINING FOR NON CONDUCTING COVERING.

No. 273,688.

Patented Mar. 6, 1883.

FIG. 1.

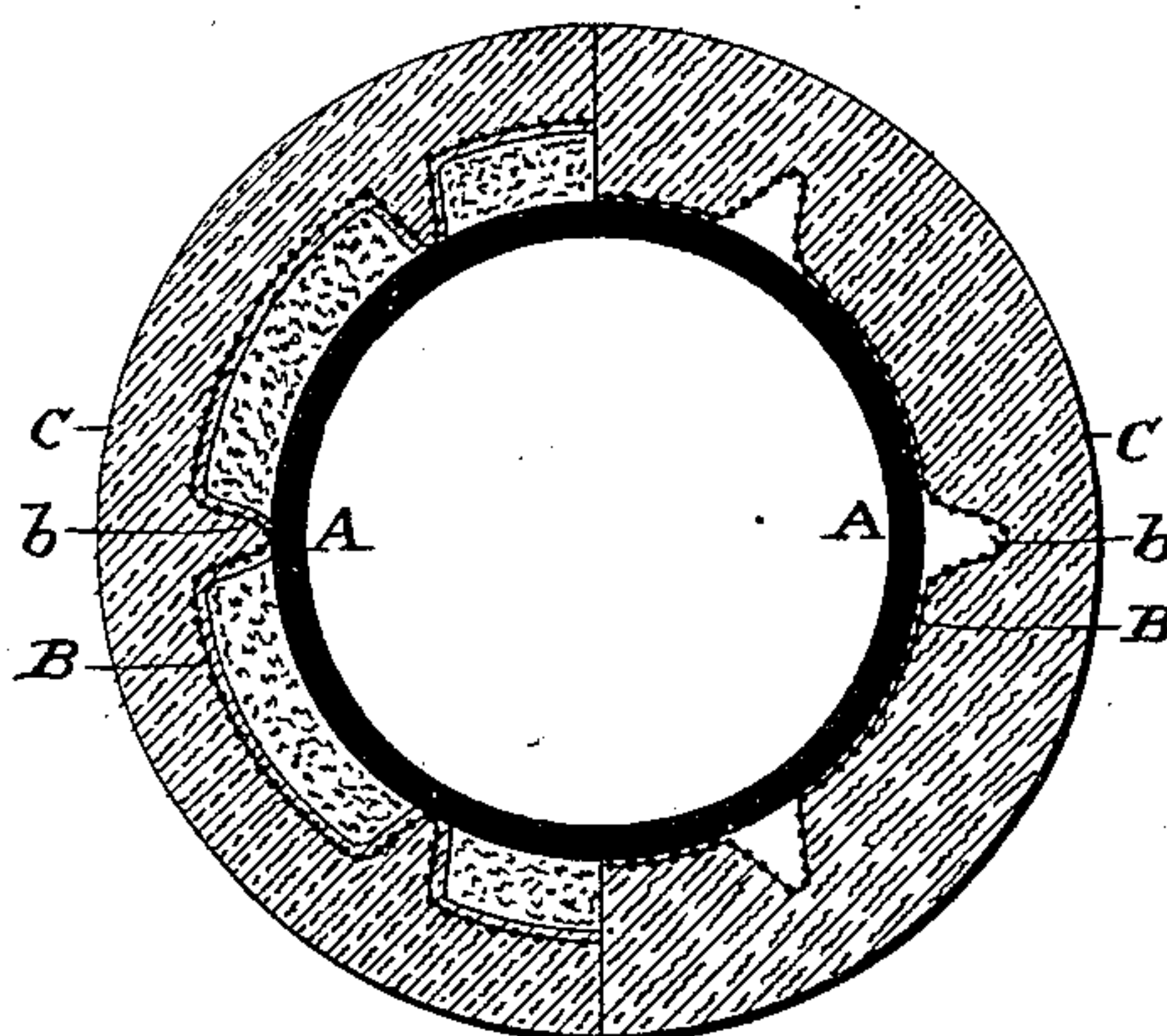


FIG. 2.

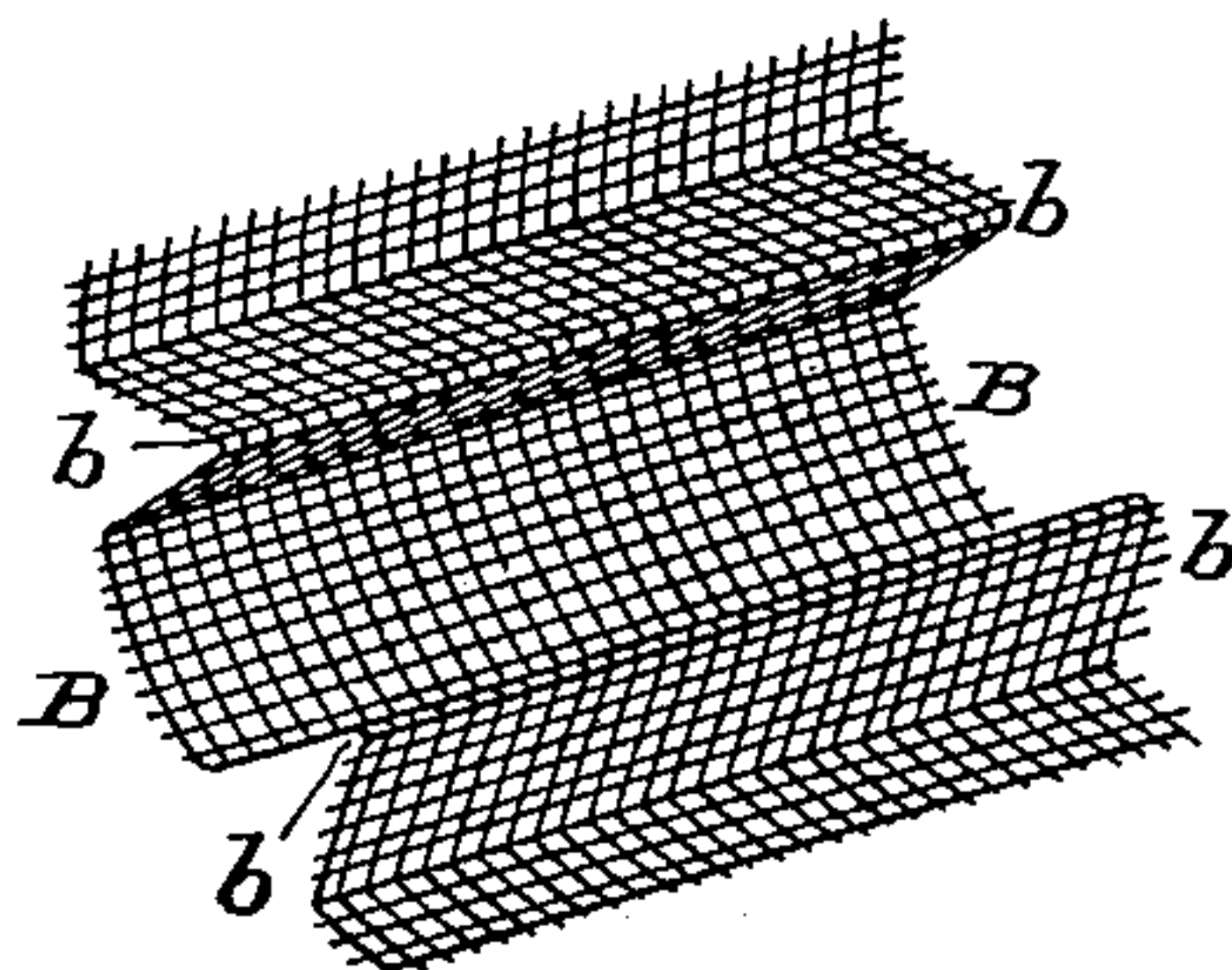
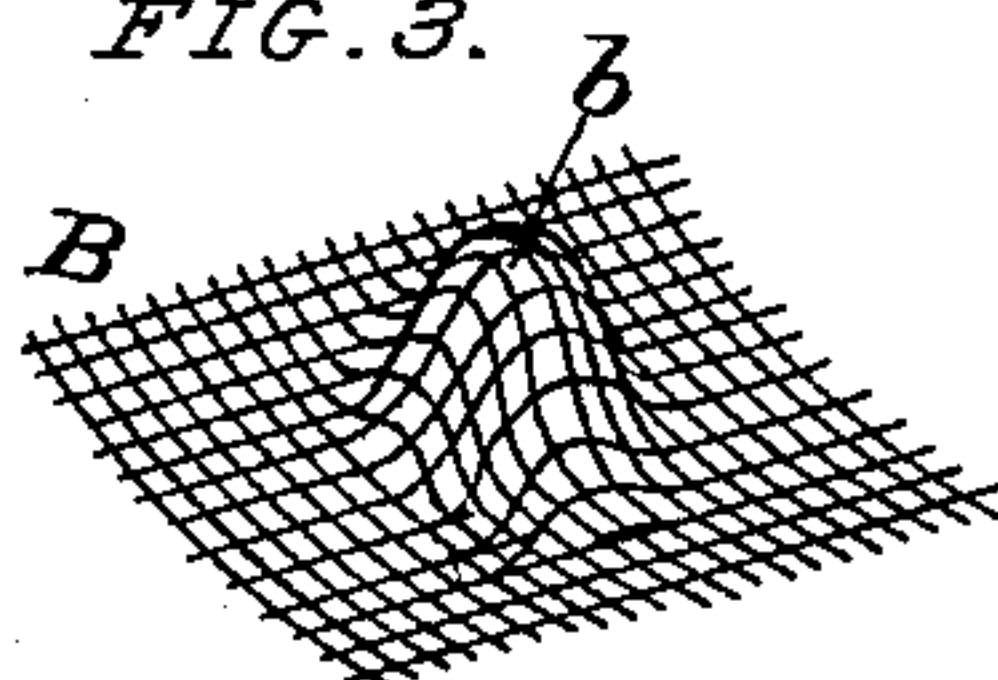


FIG. 3.



ATTEST:

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# UNITED STATES PATENT OFFICE.

GEORGE KELLY, OF CHICAGO, ILLINOIS.

## LINING FOR NON-CONDUCTING COVERINGS.

SPECIFICATION forming part of Letters Patent No. 273,688, dated March 6, 1883.

Application filed December 9, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE KELLY, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a certain new and Improved Lining for Non-Conducting Coverings, of which the following is a specification.

The present improvement relates to that class of non-conducting coverings in which a plastic mass or cement is used to form a non-conductive covering on heating and cooling surfaces, yet my improvement can be used with very good results with various other forms of covering.

The objects of my improvement are, first, to provide a ready and simple means for forming dead-air spaces between the surface to be covered and the non-conducting covering; second, to afford facilities for applying the plastic material in a cheap and effective manner by furnishing projections or ribs for holding such material. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a transverse section, illustrating two modes of applying my improved wire-gauze lining. Fig. 2 is a detail perspective view of my improved wire-gauze lining provided with longitudinal ribs or projections. Fig. 3 is a similar view, showing wire-gauze lining provided with depressions or teats.

Referring to the drawings, A represents the heating-pipe or other similar surface, around which is placed my improved wire-gauze lining B, outside of which is placed the non-conducting material C, which may be formed of plastic cement, or of any other non-conductive substance found suitable and most convenient.

I form the wire-gauze lining with a series of projections, *b*, which are integral with the main portion of the lining, being sunk in or from the surface of the same, and in constructing my improved lining the projections *b* may be continuous, as shown in Fig. 2, or they may be formed into a series of teats or indentations, as shown in Fig. 3. In some cases it may be preferable to use both the ribs and the teats in conjunction with each other.

In practical use the lining may be arranged so that its ribs or teats will project outwardly,

in manner indicated in the right-hand half of Fig. 2; but it is preferred to have them project inwardly, as shown in left-hand half of Fig. 1, as by such an arrangement the ribs or teats *b* hold the main portion of the lining at a distance from the heating-surface, and so form a dead-air space next to such heating-surface, and between the same and the outer non-conducting covering, C, by which means the valuable results from such air-space is attained in a very cheap and simple manner by my improved construction.

My improved lining is specially adapted to that class of covering known as the "plastic cement," the ribs or teats *b* forming very efficient holding-surfaces for the said material, while the wire-gauze itself permits of a very strong and effective "clenching" of the material through its interstices.

I am aware that prior to my invention a corrugated plate has been interposed between a smoke-pipe and an outer inclosing casing, so as to permit of a circulation of air along said smoke-pipe, as shown in Patent No. 71,300, issued November 26, 1867, to J. Harris, for fire-proof packing for smoke and hot-air flues. I therefore do not claim such combination, broadly; but

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

1. A lining for non-conducting covering for pipes and analogous purposes, consisting of a sheet of wire-gauze having ribs or teats formed in its substance for the purpose of holding and clenching the outer plastic non-conducting material.

2. A lining for non-conducting covering for pipes and analogous purposes, formed of wire-gauze having inwardly-projecting ribs or teats integral with the main portion of the lining for the purpose of holding and clenching the outer plastic non-conducting material, and at the same time form a dead-air space between said material and the pipe or other article to which the covering is applied.

GEORGE KELLY.

Witnesses:

ROBT. BURNS,  
H. D. SMALLEY.