

No. 818,763.

PATENTED APR. 24, 1906.

G. C. HICKS.
STOVE LINING.

APPLICATION FILED JUNE 16, 1905.

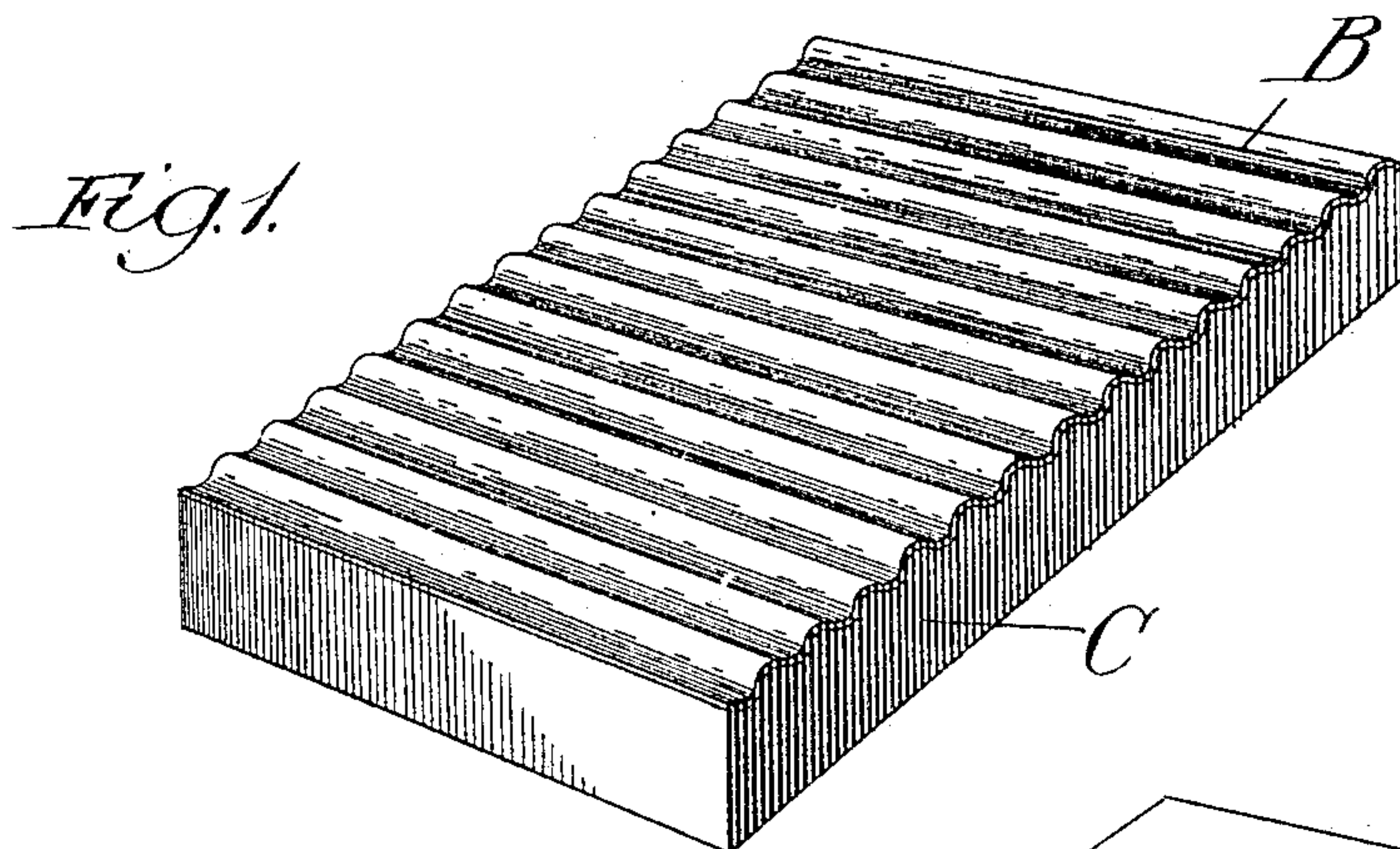


Fig. 2.

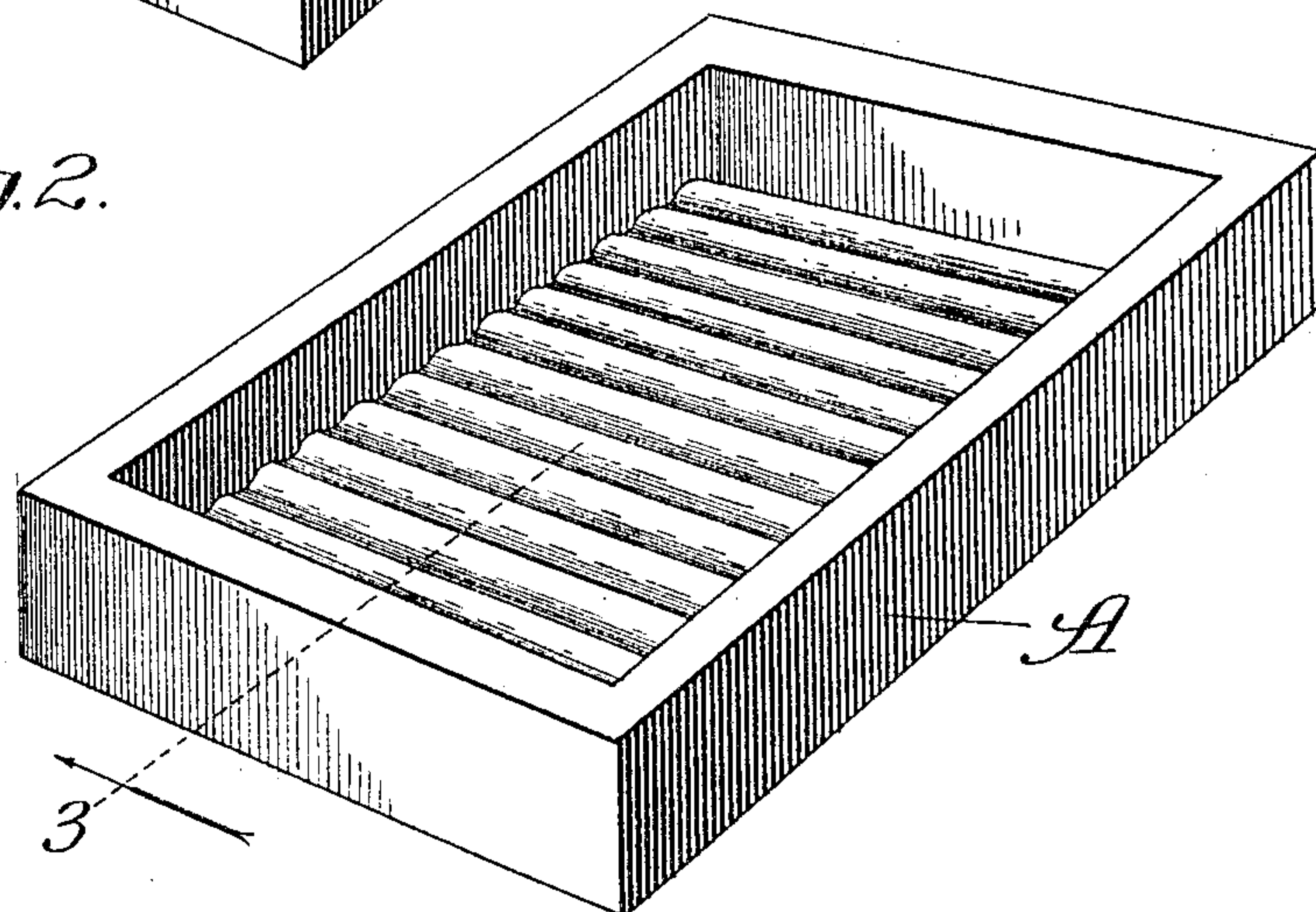
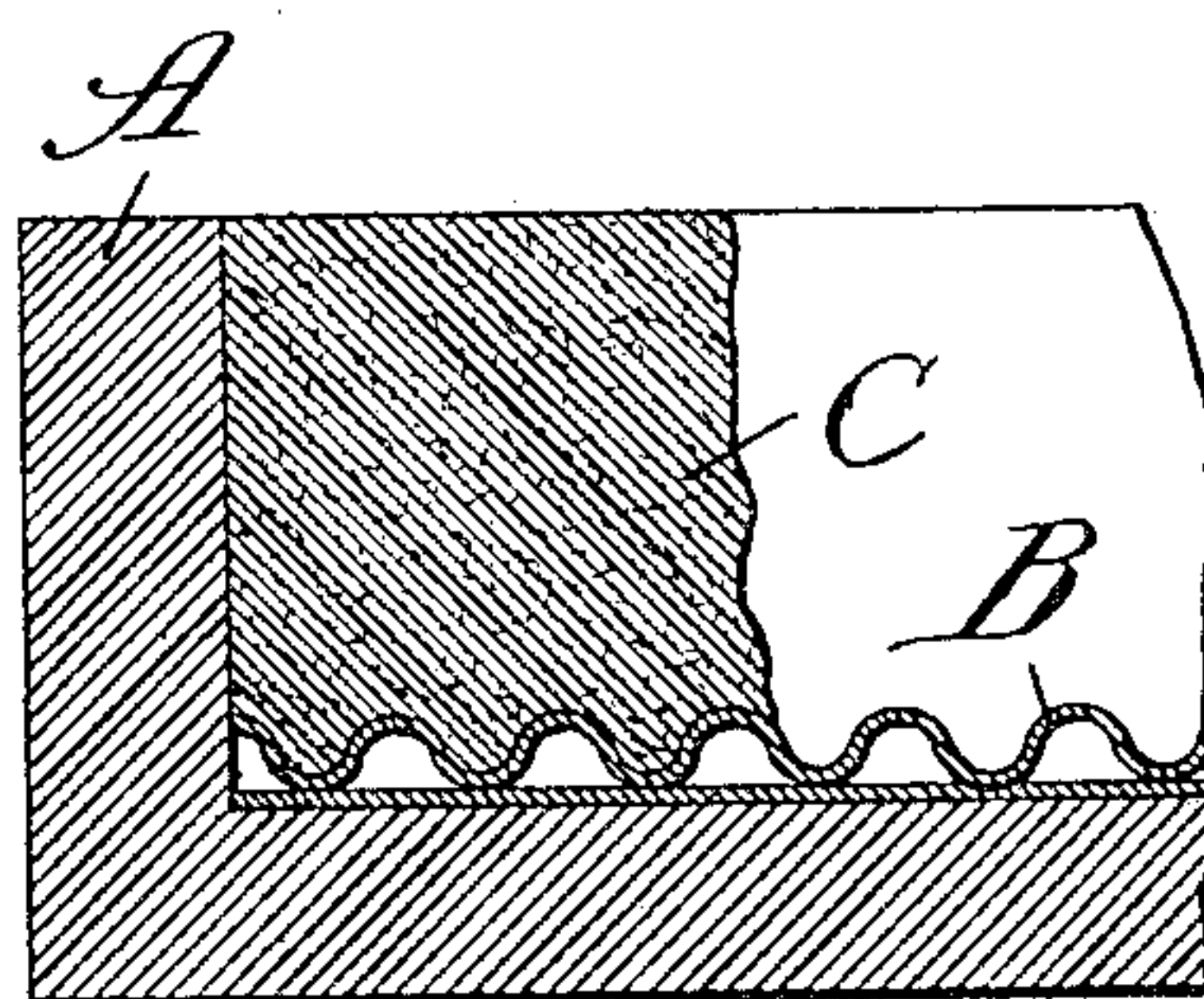


Fig. 3.



Fig. 4.



Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

GEORGE C. HICKS, OF CHICAGO, ILLINOIS.

STOVE-LINING.

No. 818,763.

Specification of Letters Patent.

Patented April 24, 1906.

Application filed June 16, 1905. Serial No. 265,498.

To all whom it may concern:

Be it known that I, GEORGE C. HICKS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Stove-Lining, of which the following is a specification.

The object of my invention is to adapt a plastic stove-lining composition, such as that set forth in Letters Patent of the United States No. 607,928, granted to me July 26, 1898, or that described and claimed in my pending application, Serial No. 265,497, filed concurrently herewith on the 16th day of June, 1905, to be applied to its purpose in a manner to cause it under subjection to the heat in the fire-box to be gradually dried preparatory to exposing it to the full intensity of the heat for baking it to reduce it to a refractory lining. To this end I furnish the stove-lining composition in the form of a slab or brick and provide thereon in molding it into shape an adhering covering on one or more surfaces, (but of necessity only upon the surface to be exposed to the fire,) of paper or other combustible material, to be burned off when the slab or brick is subjected to the first heating in the stove or the like to which it is applied, thereby protecting the article while in its "green" or plastic condition from direct contact with the heat until it shall have become preliminarily or partially dried, and thus saving it from cracking while undergoing the baking operation.

The procedure involved in producing my improved article of plastic stove-lining composition is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a slab or brick of plastic stove-lining composition with a sheet of corrugated paper upon and adhering to one of its surfaces; Fig. 2, a similar view of a mold suitable for forming the slab and shown to be provided with a corrugated bottom; Fig. 3, a broken enlarged section taken at the line 3 on Fig. 2 viewed in the direction of the arrow and showing the slab molded therein, and Fig. 4 a similar section showing the mold to be provided with a smooth bottom for use where the sheet of covering material is corrugated only on the side at which it adheres to the slab.

To carry out my invention, I cast the com-

position in a plastic condition (and which may according to my aforesaid patent consist of a mixture of pulverized fire-clay with or without pulverized fire-brick, a hygrometric material, such as glycerin and water, with the addition, if desired, of chlorid of magnesium, according to my aforesaid current application) in a mold A against a sheet B, of paper, cardboard, or other combustible material removably placed in the bottom of the mold. The slab or brick C is thus formed with the sheet B adhering to its surface. While this surface may be flat, as also the surface of the sheet B adhering thereto, it is preferably corrugated, as shown in Fig. 1, and rendered so by conforming in molding to the corrugated surface of the sheet. I may also use a mold having its bottom corrugated, as shown in Fig. 2, into which a sheet B, having both surfaces similarly corrugated, is placed, or I may use a mold having a flat bottom, as represented in Fig. 4, and with which a sheet B is used having a corrugated upper surface and a flat lower surface. In either case the slab or brick when taken out of the mold has adhering to one surface a protecting-covering of combustible material.

To apply my improved protected slab to use, it is fitted to the surface of the fire-box to be lined with its sheet-covered surface exposed to be subjected to fire in the box. The fire first attacks the combustible covering B, gradually consuming it and heating and drying the substance of the brick, thus preparing it for subjection to the intense heat of the fire and preventing the latter from cracking it in exerting its baking action on the lining.

The covering B also protects the surface of the plastic article against injury in handling it.

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

1. As a new article of manufacture, a slab or brick of plastic fire-box-lining composition, provided on its surface to be exposed to the baking heat with a protecting-covering of combustible material adhering to said surface, for the purpose set forth.

2. As a new article of manufacture, a slab or brick of plastic fire-box-lining composition, having its surface to be exposed to the baking heat corrugated and provided with a pro-

protecting-covering composed of a corrugated sheet of combustible material adhering to said surface, for the purpose set forth.

3. As a new article of manufacture, a slab
5 or brick of plastic fire-box-lining composition, having its surface to be exposed to the baking heat corrugated and provided with a protecting-covering composed of a sheet of com-

combustible material corrugated on both surfaces and adhering at one of said surfaces to the corrugated surface of said plastic article, for the purpose set forth.

GEORGE C. HICKS.

In presence of—

W. B. DAVIES,
J. H. LANDES.