

No. 837,377.

PATENTED DEC. 4, 1906.

T. BENNETT.
TEMPORARY GRATE.
APPLICATION FILED OCT. 13, 1905.

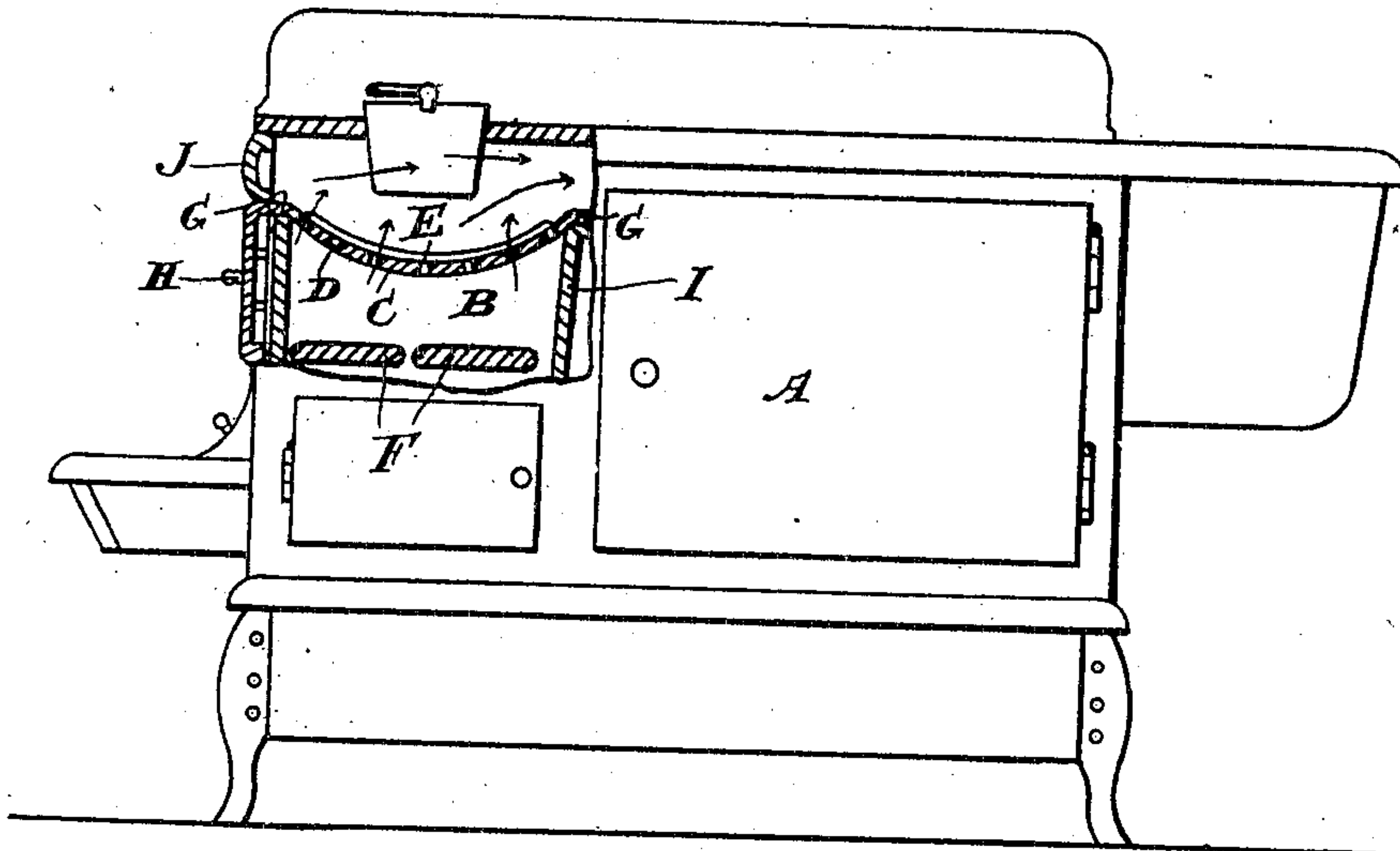


Fig. 1.

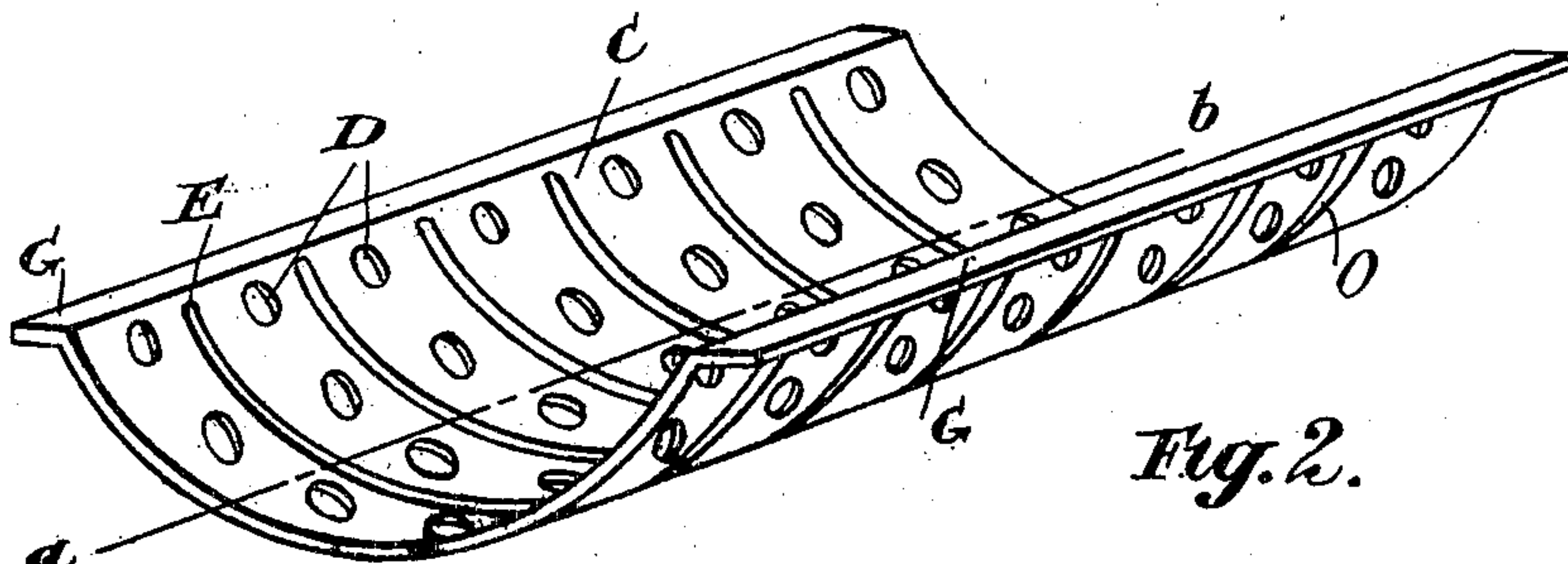


Fig. 2.

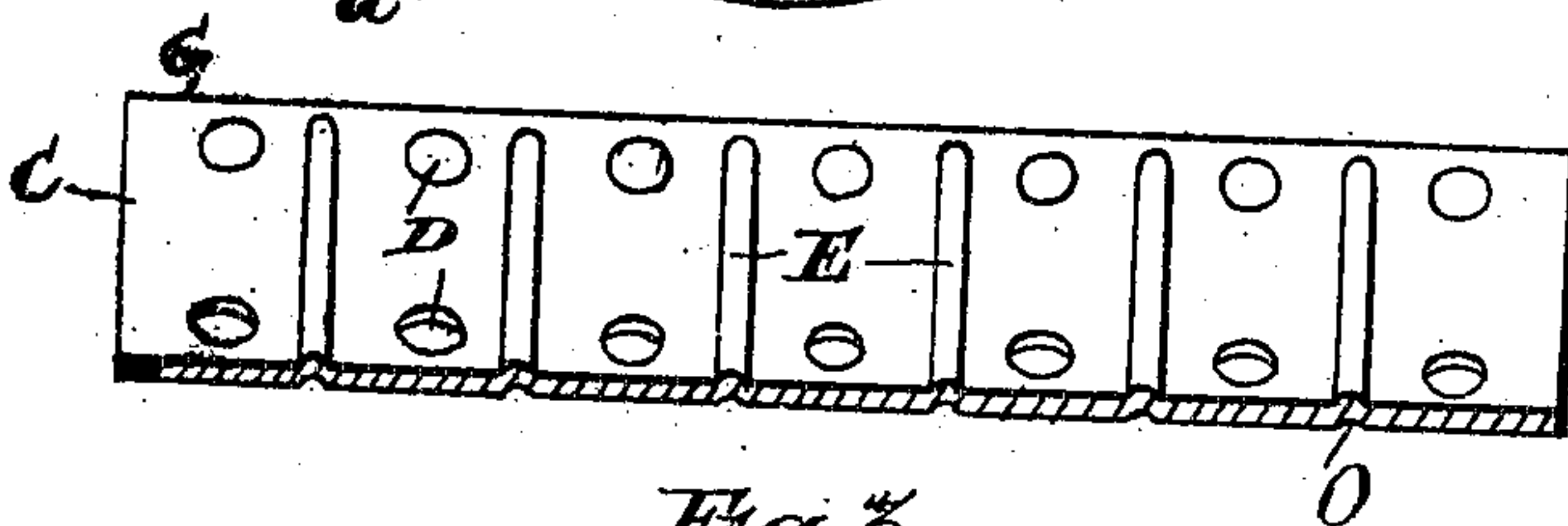


Fig. 3.

Witnesses.
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Inventor:
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UNITED STATES PATENT OFFICE.

THOMAS BENNETT, OF TORONTO, ONTARIO, CANADA.

TEMPORARY GRATE.

No. 837,377.

Specification of Letters Patent.

Patented Dec. 4, 1906.

Application filed October 13, 1905. Serial No. 282,669.

To all whom it may concern:

Be it known that I, THOMAS BENNETT, sheet-metal worker, a subject of the King of Great Britain, residing in the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Temporary Grates, of which the following is a specification.

My invention relates to improvements in temporary grates; and the object of my invention is to design a grate, chiefly for summer use, that may be used in connection with wood or coal stoves, whereon a fire may be kindled in order to have a temporary, but hot fire, the said grate being stamped or formed from sheet metal and braced so that it will not be warped through the action of different temperatures.

Another object is to construct my grate so that the bracing or stiffening means will be as near as possible kept at a lower temperature than the major portion of the grate while it is in use; and it consists, essentially, of a member formed or stamped out of sheet metal so as to be given a substantially concavo-convex shape or form and provided with a plurality of slots or holes to permit of the necessary draft, and further provided with strengthening or bracing ribs stamped upward therein from the lower side and extending from side to side of said grate in conformity with its shape and means whereby same is supported in the fire-box.

Figure 1 is a side elevation of an ordinary cook-stove, the fire-box being in section, showing my temporary grate, also in section, supported therein. Fig. 2 is a general perspective view of my preferred form of grate; and Fig. 3 is a longitudinal section on the line *a b*, Fig. 2.

In the drawings like characters of reference indicate corresponding parts in each figure.

A is any suitable stove, in the fire-box B of which I show suitably supported my temporary grate C. This grate is constructed so as to be substantially trough-shaped or concavo-convex in cross-section, thereby obtaining the necessary depth in order that it may hold a suitable amount of combustible material. The said grate is provided with a plurality of holes or slots D, which may be placed in any

suitable position, and by means of same it it will be understood by following out the arrows in Fig. 1 that the necessary draft for the fire will pass up through the grate and combustible material supported thereon. In order to stiffen or brace said grate, I stamp upward from the under side of same a plurality of ribs E, which extend from side to side of the grate—that is to say, these ribs follow the concavo-convex configuration given to the grate.

It will of course be understood that by reason of the heating of the grate and consequent cooling of same when it is out of use the material of said grate is subjected to extreme changes in temperature, and it is one of my chief objects to prevent warping of same through the action of these different temperatures, thus increasing its life and maintaining its original shape. By forming or stamping the ribs E so that their upper side will be on the upper side of the grate I form pockets in said ribs in which a quantity of air will collect. As the cool air passes from the exterior into the stove in the usual manner and continues through the fire-box by passing through the holes or slots in said grate, it will be understood that a continuous supply of fresh air is brought in contact with said grate, thus replenishing the supply of air in the pockets O. This air in said pockets being more or less cool and certainly of a lower temperature than the air on the upper side of said grate will keep the temperature of said ribs below that of the rest of the grate, thus enabling them to perform their function of stiffening and bracing the grate. It will of course be understood by one skilled in this art that by the very act of forming the ribs E the metal therein is more or less crystallized, and thus made harder than the surrounding metal in the grate. Thus providing hardened ribs in said grate enables me to strengthen same thereby, and thus keep its original shape notwithstanding the action of different temperatures, as said ribs being made of metal harder than the surrounding metal it will require a higher temperature to injuriously affect them than is required to injuriously affect the rest of the grate. Therefore it will be understood that I do not essentially construct the ribs so that they will be provided with the pockets O.

By any suitable means the grate C is supported in the fire-box and any suitable distance above the grates F therein. My preferred form of construction for this purpose is to integrally provide said grate with side flanges G, which rest upon the front and rear walls H and I of the fire-box.

According to the construction shown, A is a coal-stove. By taking off the lids (not shown) or opening the front door J the grate C is slid in place and a temporary fire, either of shavings, charcoal, peat, or light wood, may be made thereon, thus rendering it unnecessary to light a big fire in the stove in order to do a little cooking. From Fig. 1 it will be seen that by means of my grate the fire is brought close to the bottom of the pot or other utensil that may be on the stove. When a temporary fire is built in a coal-stove or even in a wood-stove, it is so far below the bottom of the utensil suspended over same that it is practically of very little use, as the greater part of the relatively small quantity of heat escapes through the draft-passages, very little coming in contact with the utensil, thus requiring a much larger fire to be made in the stove in order to obtain the result I obtain with a small temporary fire made on my grate.

With my grate the minimum amount of combustible material can be used in order to obtain the maximum heat, thus preventing the kitchen from becoming too warm.

What I claim as my invention is—

1. A temporary grate comprising a member formed or stamped out of sheet metal so as to be given a substantially concavo-convex shape or form and provided with a plurality of slots or holes to permit of the necessary draft and further provided with strengthening or bracing ribs stamped upward therein from the lower side and extending from side to side of said grate and in conformity with its shape, and means whereby same is held in applied position.

2. A temporary grate comprising a member formed or stamped out of sheet metal so as to be given a substantially concavo-convex shape or form and provided with a plurality of slots or holes to permit of the necessary draft and further provided with strengthening or bracing ribs stamped upward therein from the lower side and extending from side to side of said grate and in conformity with its shape, the construction of said ribs forming pockets on their under sides, and side flanges integrally formed from said grate whereby it is held in applied position.

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

THOMAS BENNETT.

Witnesses:

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