

No. 790,232.

PATENTED MAY 16, 1905.

B. J. TAYLOR.
FIRE BOX LINING FOR COOK STOVES OR RANGES.
APPLICATION FILED AUG. 8, 1904.

Fig. 1.

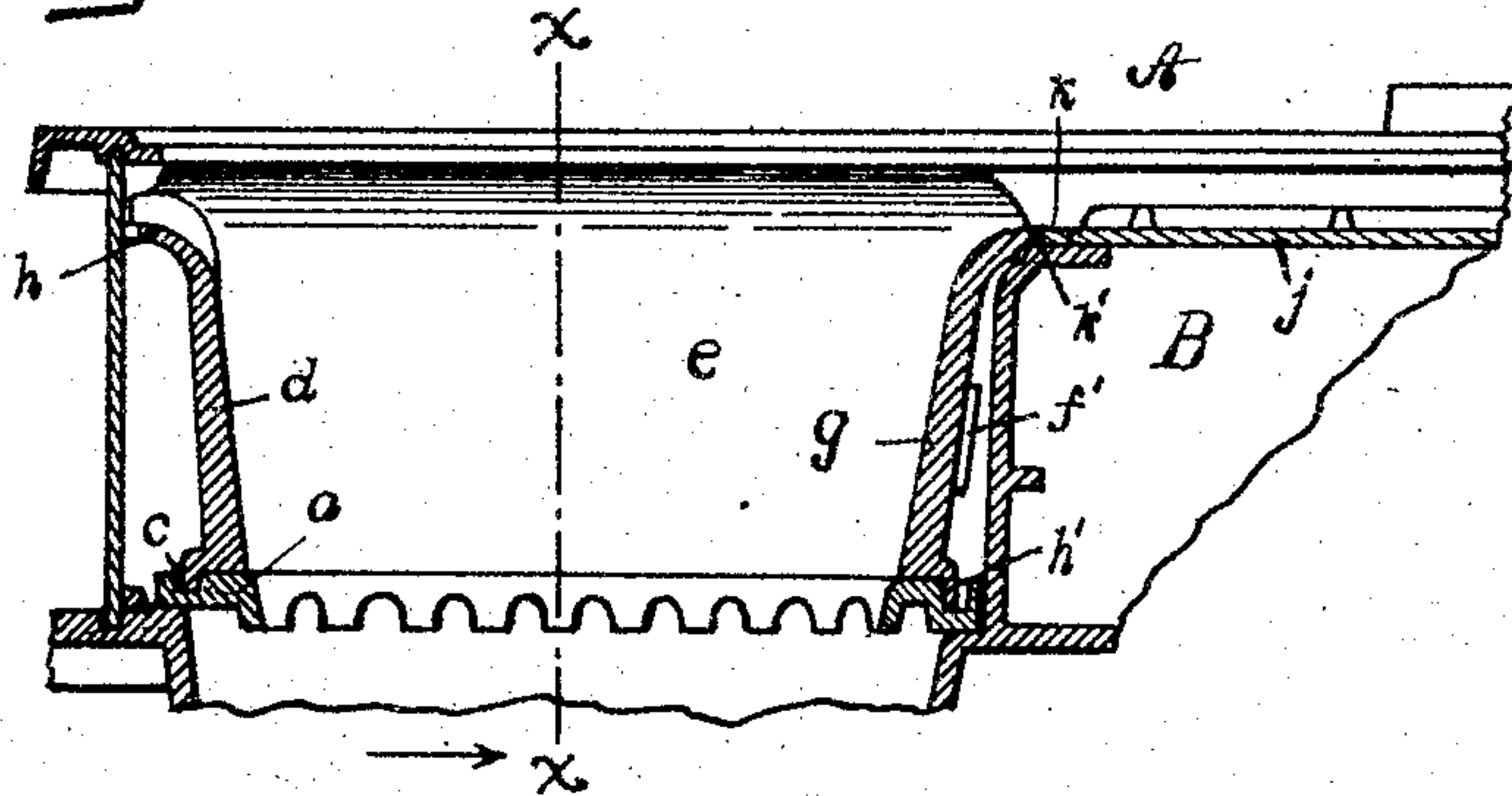


Fig. 2.

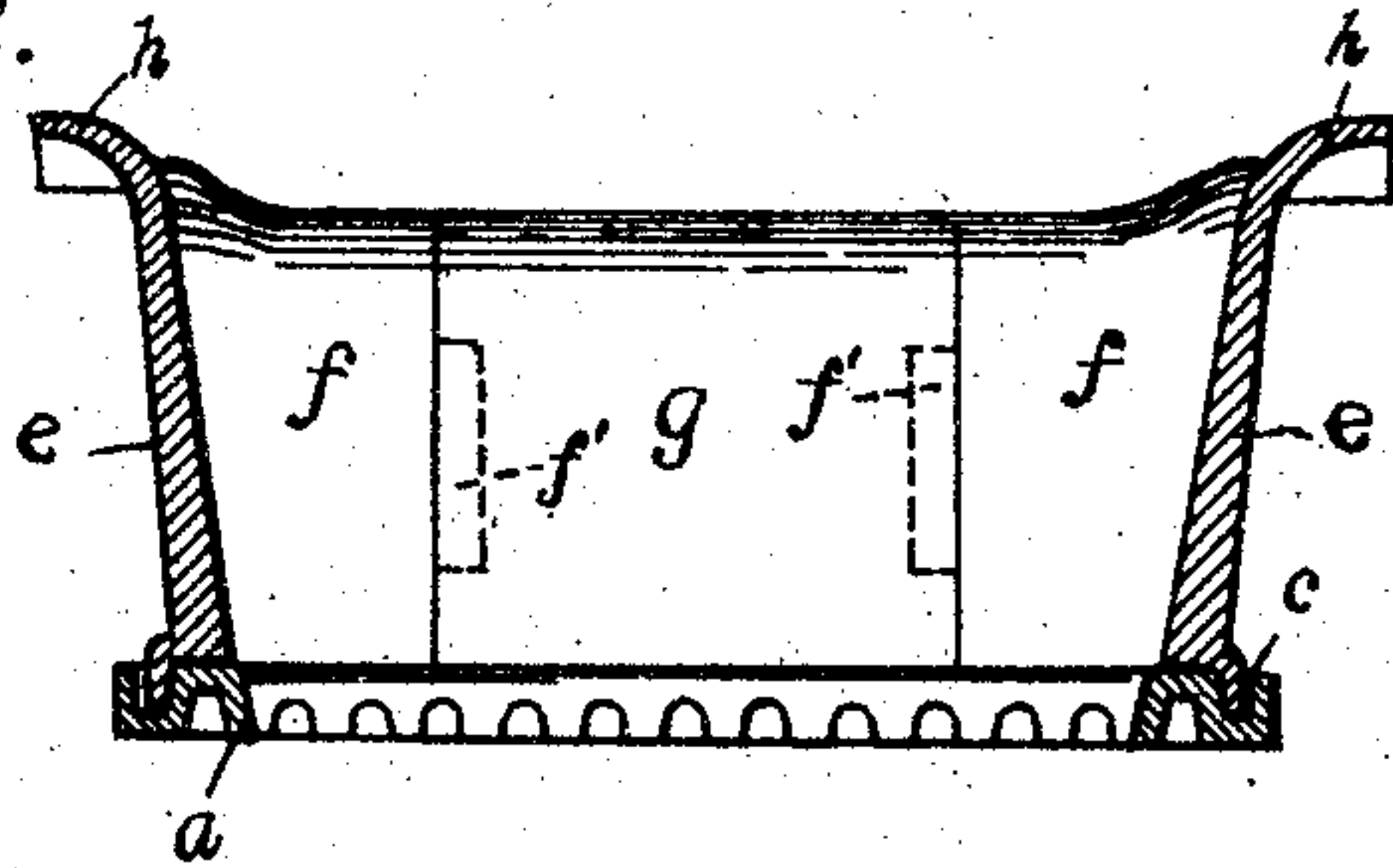


Fig. 4.

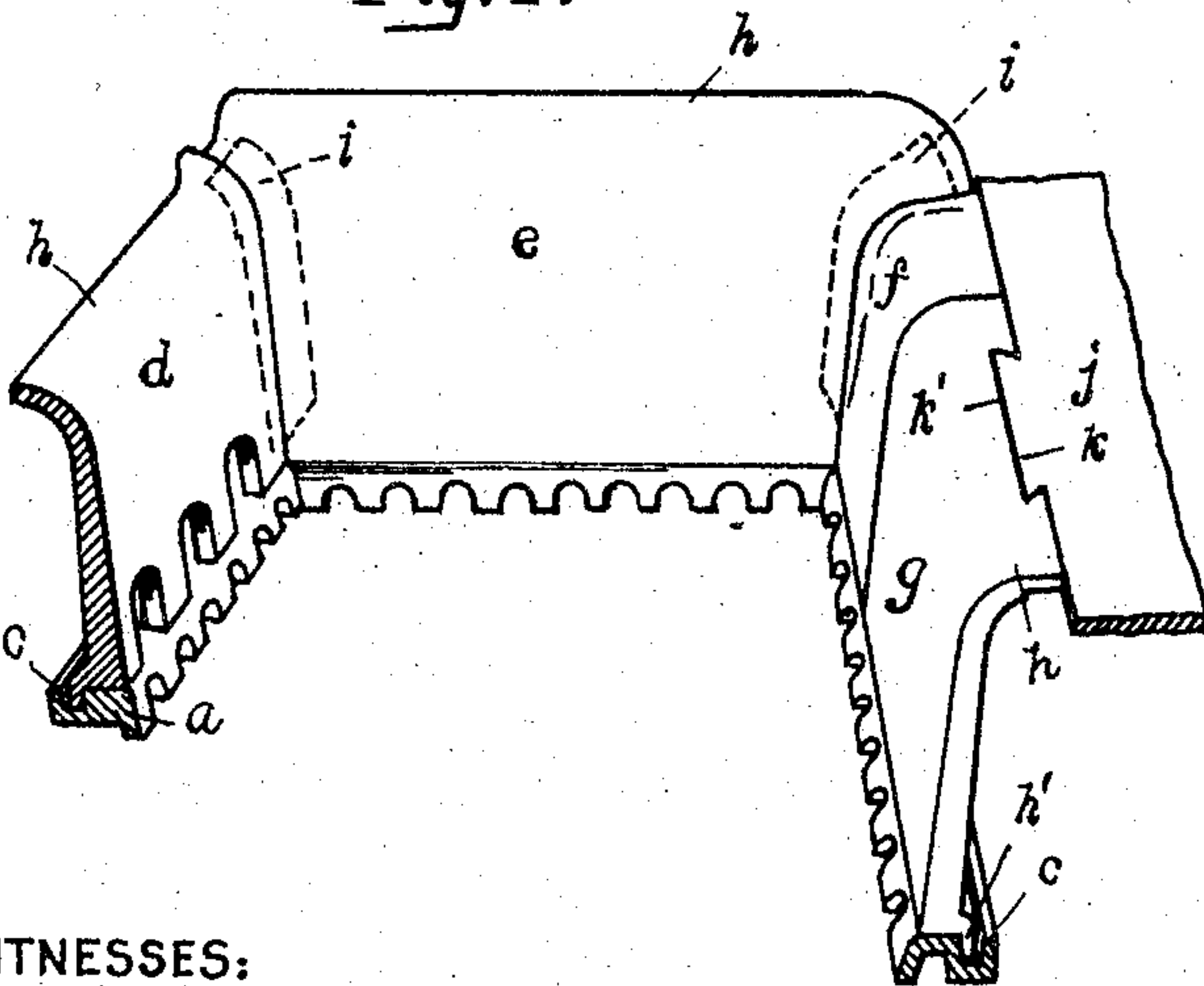
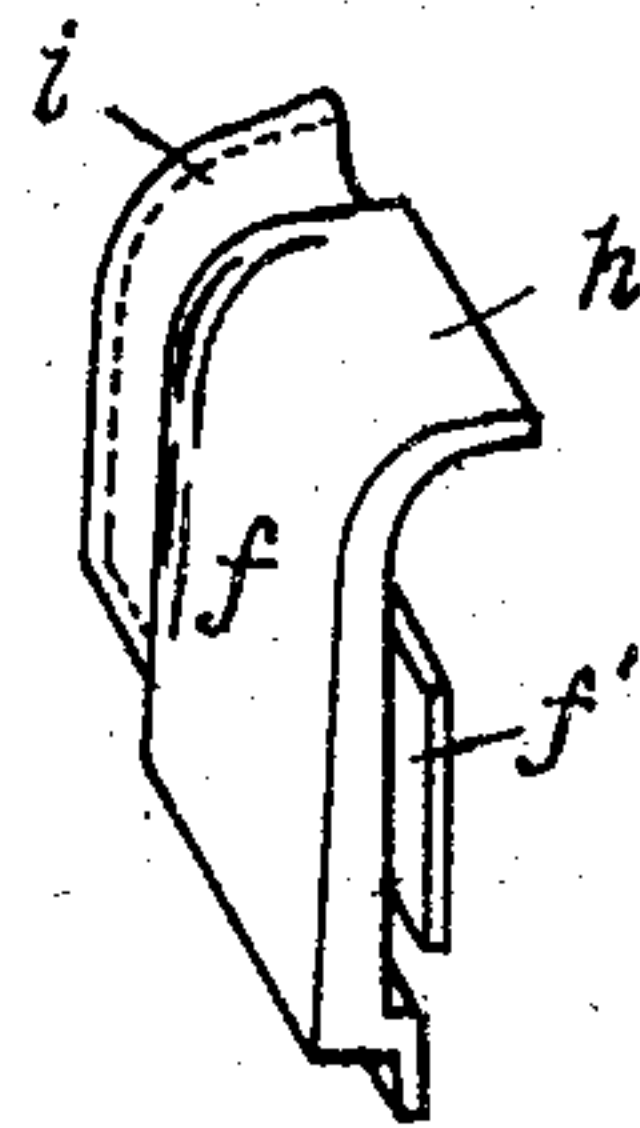


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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FIRE-BOX LINING FOR COOK-STOVES OR RANGES.

SPECIFICATION forming part of Letters Patent No. 790,232, dated May 16, 1905.

Application filed August 8, 1904. Serial No. 219,813.

To all whom it may concern:

Be it known that I, BENJAMIN J. TAYLOR, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Fire-Box Linings for Cook-Stoves or Ranges; and I hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in the fire-box linings or casings of cook-stoves, ranges, or the like; and it has for its object to provide a lining of the class described that is so constructed as to enable the parts thereof subjected to the greater heat to be readily removed and new pieces substituted therefor without the removal or insertion of bolts or other retaining means and to allow such parts to be contracted, expanded, or warped by the action of the heat or the cooling thereof without the danger of cracking.

The invention is fully described in the following specification and shown in the accompanying drawings, in which—

Figure 1 is a transverse median section of the fire-box of a stove and fire-box lining comprising my invention. Fig. 2 is a longitudinal median section of the fire-box lining looking toward the rear thereof. Fig. 3 is a perspective view of one of the rear side plates of the lining against which the center plate locks; and Fig. 4 is a perspective view of the fire-box lining, showing parts in transverse section.

Referring to the drawings, A represents a portion of an ordinary type of cook-stove or range, and B the oven thereof, to the front of which is disposed the usual fire-box lining in which the features of my invention reside. A frame or rim *a* surrounds the grate or bottom of the fire-box and is provided on its upper edge with a groove *c*. Resting upon the frame *a* and forming the lining of the fire-box are the front plate or section *d*, the opposite

end sections *e e*, the rear side plates or sections *f f*, and the rear center or locking plate *g*. The sections *d*, *e*, *f*, and *g* each have their upper edges flared outwardly, as shown at *h*, to adapt them to horizontally abut against a contiguous portion of the stove-casing and form an air-space entirely around the lining and have their lower edges formed with a downwardly-projecting flange *h'*, which seats within the groove *c* of the supporting-frame and prevents a lateral movement of said plates or sections with respect thereto. The vertical edges of each of the end sections *e* are formed at an angle necessary to abut against the contiguous edges of the front and rear sections *d* and *f*, thereby forming an unbroken inner surface of the lining and preventing said side sections from falling inwardly when the front and rear sections are in position. The front and rear sections *d* and *f* are in turn locked against an inward movement with respect to the end sections *e* by reason of a flange or tongue *i* projecting from the edges of said former sections and fitting closely within the rear contour of the contiguous edges of the end sections, as shown by dotted lines in Fig. 4, and, further, by reason of a plate *g* when in locked position, as hereinafter described, bearing against the tongues *f'*, which are formed on the inner edges of said plates *f* and pass to the rear of the locking-plate *g*.

Bolted or otherwise secured to the upper casing of the oven B is a flue-plate *j*, which forms a portion of the bottom of the smoke-exit flue leading from the fire-chamber over said oven and also acts as an abutment against which the upper flared edges of the rear sections of the lining rest.

After the lining-sections *d*, *e*, and *f* have been positioned upon the frame *a*, as above described, the locking-plate *g* is secured to and prevented from lateral movement with respect to the flue-plate *j* by means of the dovetailed tongue *k* of said plate *j* locking within the correspondingly-shaped notch *k'*, which is provided in alining position in the flared portion of the plate *g*, while the lower edge of said plate *g* is retained against lateral movement by the flange *h'* thereof seating

within the groove *c* of the frame *a*. It will thus be apparent that the construction and interlocking of the several sections of my lining eliminates the employment of bolts or
 5 other like retaining means for securing and locking the several parts in rigid position and enables the same to be easily and quickly set up within a stove or removed for the purpose of repair.

10 A further advantage derived from the particular construction and association of the parts of my lining is the enabling of said parts to independently contract, expand, or warp without danger of cracking, as is frequently
 15 the case in fire-boxes having bolted linings, and also to enable the rear center section of the lining, which is the one subjected to the greatest heat and warpage, to be removed
 20 and a new one inserted in its place without substituting an entirely new back or rear section, thereby causing a saving of material and expense and making said section easier of removal.

It is obvious that my lining may be used
 25 in any form of cook-stoves, heating-stoves, ranges, and the like, and that such changes in the form, proportion, and details of construction of the parts as is necessary to adapt it for use in the varying types of stoves and ranges
 30 and fairly fall within the scope of my invention may be made without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described my invention, what
 35 I claim as new, and desire to secure by Letters Patent, is—

1. A fire-box lining, comprising a supporting-ring having a surface groove therein, a flue-plate having a dovetailed tongue pro-

jecting therefrom toward the fire-chamber, 40 front, end, rear side and rear central abutting lining-sections mounted upon the supporting-ring and each having its lower edge formed with a flange to seat within the groove in the supporting-ring and its upper portion flared 4 outwardly; the flared portion of the rear central section having a notch provided therein to receive and lock with the tongue on the flue-plate, said front and rear side sections being provided with the flanges *i* and the rear 50 side sections with the additional flanges *f'*, the flanges *i* being engaged by the end sections and the flanges *f'* being engaged by the rear central section, all coöperating to hold the parts in operative relation.

2. A fire-box lining comprising a supporting-ring having a surface groove therein, front, end, rear side and rear central lining-sections mounted upon the supporting-ring and each having its lower edge formed with a 60 flange to seat within the groove in the supporting-ring and its upper portion flared outwardly; said front and rear side sections being provided with the flanges *i* and the rear side sections with the additional flanges *f'*, the 6 flanges *i* being engaged by the end sections and the flanges *f'* being engaged by the rear central section, all coöperating to hold the parts in operative relation, and means for locking with the rear central section to prevent an inward 70 movement thereof.

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

BENJAMIN J. TAYLOR.

Witnesses:

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 POWELL SCHRIEBER.