

No. 847,402.

PATENTED MAR. 19, 1907

P. H. ERBES.  
FIRELESS COOK STOVE OR COOKING OVEN.

APPLICATION FILED MAY 31, 1906.

Fig 2.

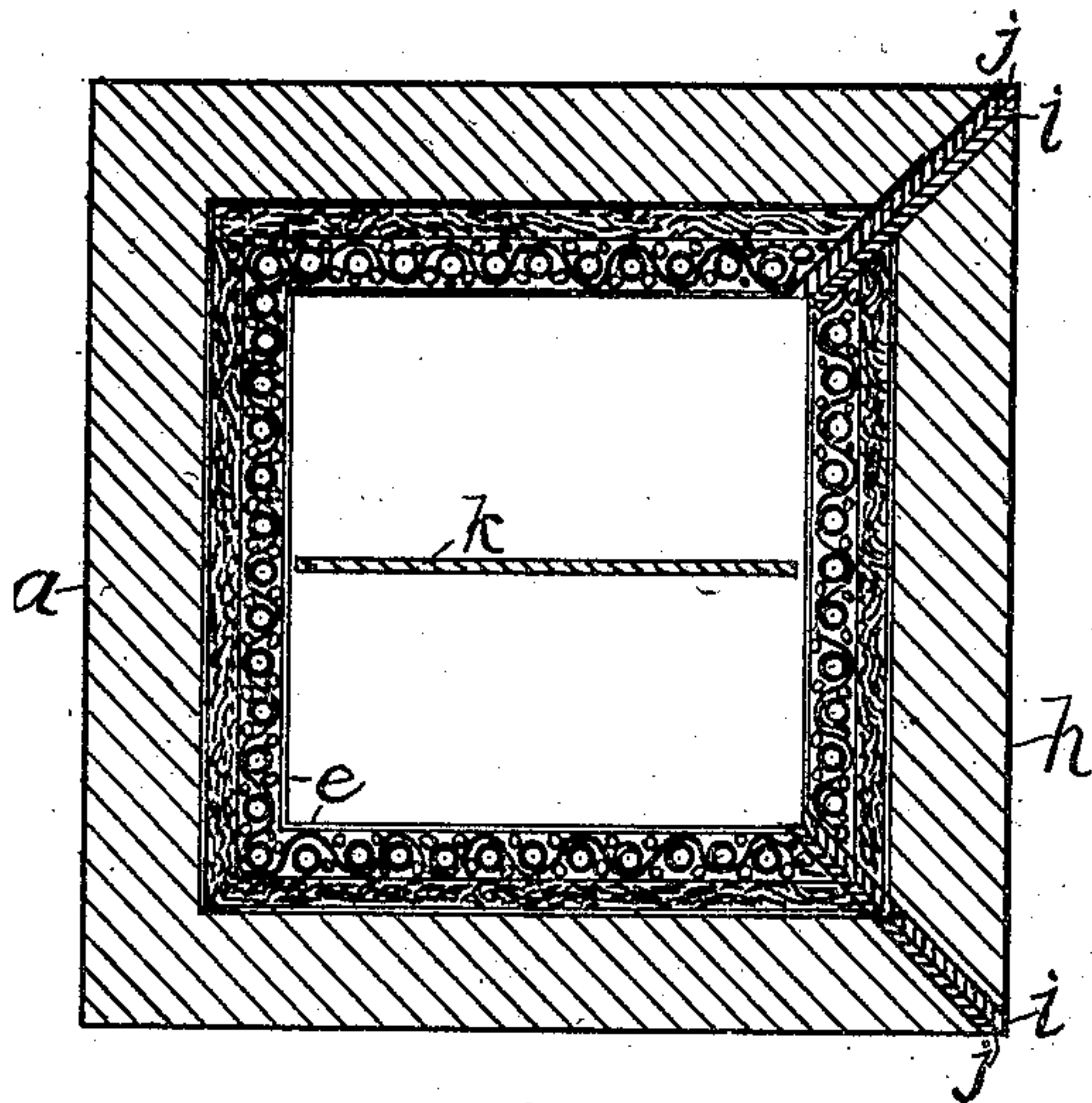


Fig 1.

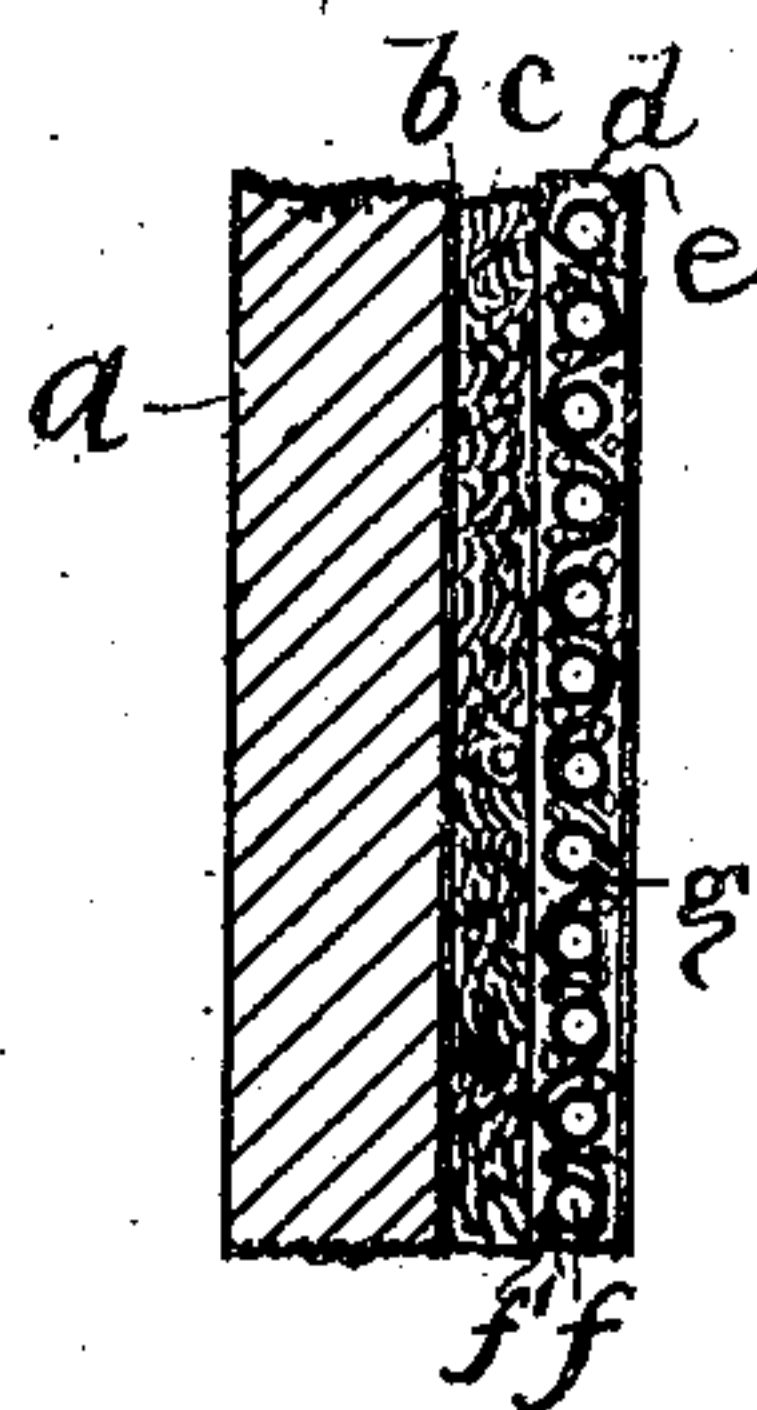
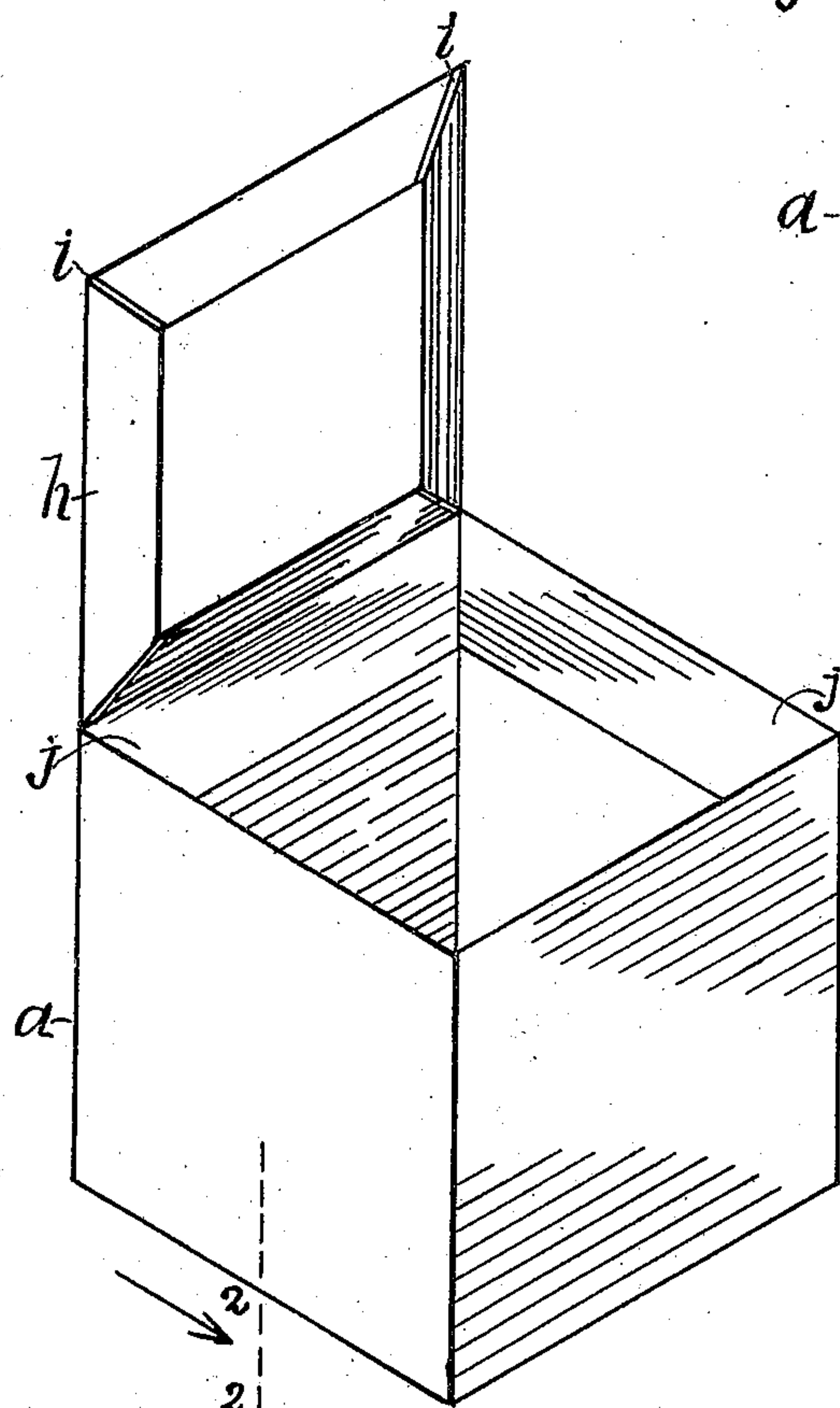


Fig 3.

Witnesses.

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# UNITED STATES PATENT OFFICE.

PHILIP H. ERBES, OF CHICAGO, ILLINOIS.

## FIRELESS COOK-STOVE OR COOKING-OVEN.

No. 847,402.

Specification of Letters Patent.

Patented March 19, 1907.

Application filed May 31, 1906. Serial No. 319,521.

To all whom it may concern:

Be it known that I, PHILIP H. ERBES, a citizen of the United States, residing in Chicago, Cook county, Illinois, have invented certain new and useful Improvements in a Device known as a Fireless Cook-Stove or Cooking-Oven, of which the following is a full and correct description of the same, reference being had to the accompanying drawing, forming a part hereof, and in which—

Figure 1 shows one form of my said device in perspective with its lid raised. Fig. 2 shows a transverse vertical section of the same modified by the addition of a shelf *k*, taken on the plane 2 2 of Fig. 1; and Fig. 3 shows a fragment of one wall of said device in vertical transverse section and whereof each part of the wall has its designated reference-letter.

Like reference-letters denote like parts throughout.

The object of my invention is to produce a cook-oven, or, as it is sometimes called, a "fireless" cook-stove, which shall be adapted to domestic use and which shall retain to the highest degree the high temperature which the articles to be cooked have when first placed into it.

This invention is based on the well-known fact that when a vessel is brought to the boiling-point and then incased in thick material which is a non-conductor, such as cotton or feathers, its temperature may be retained for many hours so near the boiling-point that substances which require a high temperature of several hours to boil through will be found to be cooked as satisfactorily as if they had been boiling constantly during the entire time.

To attain said desirable ends, I construct my said new device in substantially the following manner, namely: I construct a box of cubical or any other desirable form made of wood *a*, and on the inside face of said wood I spread a thick coat *b* of paint or asbestine or any like material which will serve as an adhesive cement, on which is then secured a coating of mineral wool *c*, against which is

then placed a specially-constructed cellular asbestos board *d*, between and parallel to the surfaces of which are large air-cells *f*, which are surrounded with smaller air-cells *f'*, and said cellular formation is further augmented by a web *g* of the said material which passes sinuously, as shown, from one cell *f* to the other on alternately opposite sides of adjacent cells, and within the partly-inclosed cells thus formed by said web *g* are also held smaller air-cells *f'*, which thus forms a superb structure as a non-conductor of heat of non-inflammable material. The interior surface of said board *d* is coated with asbestos paint *e* to give it a smooth hard finish, so as to make it waterproof, so that it may be washed without being subject to holding internal dampness. The mineral wool *c* is also a non-conductor of heat of a high order, and, finally, the outer shell of wood *a* is also a good non-conductor of heat. These said articles so constructed and combined form a wall through which heat passes extremely slow. The door *h* has beveled edges, which are covered with boards *i*, and the opening which receives said door has beveled edges faced with boards *j*, whereby the edges of the parts *a b c d* are inclosed out of sight and against the harboring of impurities or vermin, and the bevels of the contact-faces of the parts *i* and *j* are set at the same angle, so that the said faces are in contact when the door *h* is closed, and thus there is no chance for air to enter or for heat to escape from said oven. One or more shelves *k* may be used to hold the cooking utensils.

What I claim is—

A lining for a fireless cook-stove consisting of a coat of paint on the interior of the stove, mineral wool adhering to the paint, cellular asbestos board facing the mineral wool, and a smooth hard asbestos paint facing said board and constituting the interior finish of said lining.

PHILIP H. ERBES.

Witnesses:

WM. ZIMMERMAN,  
FRANK S. GRAHAM.