

No. 711,357.

Patented Oct. 14, 1902.

B. R. SKINNER.
HEATED LUNCH BOX.

Application filed Jan. 22, 1902.

(No Model.)

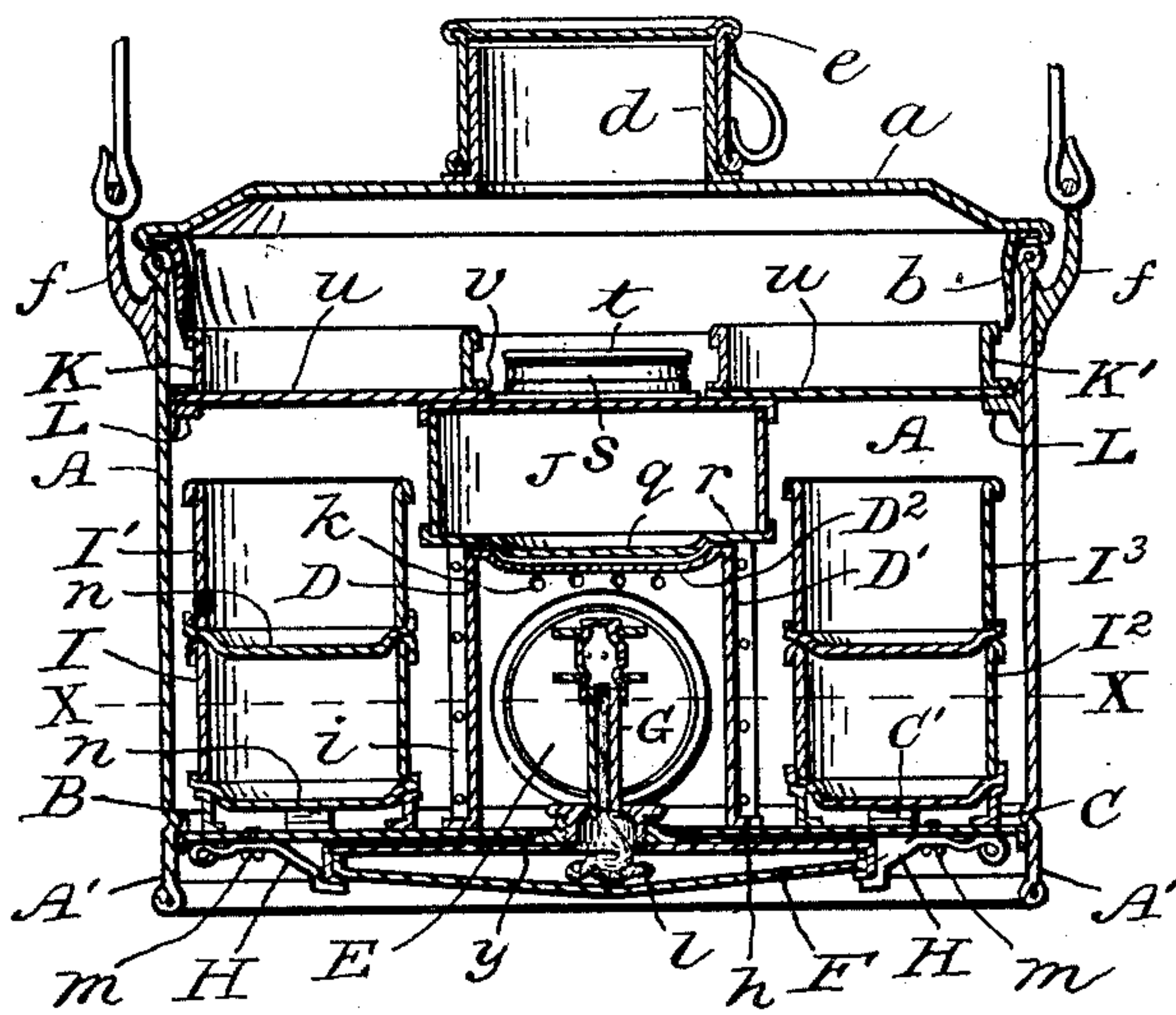


Fig. 1.

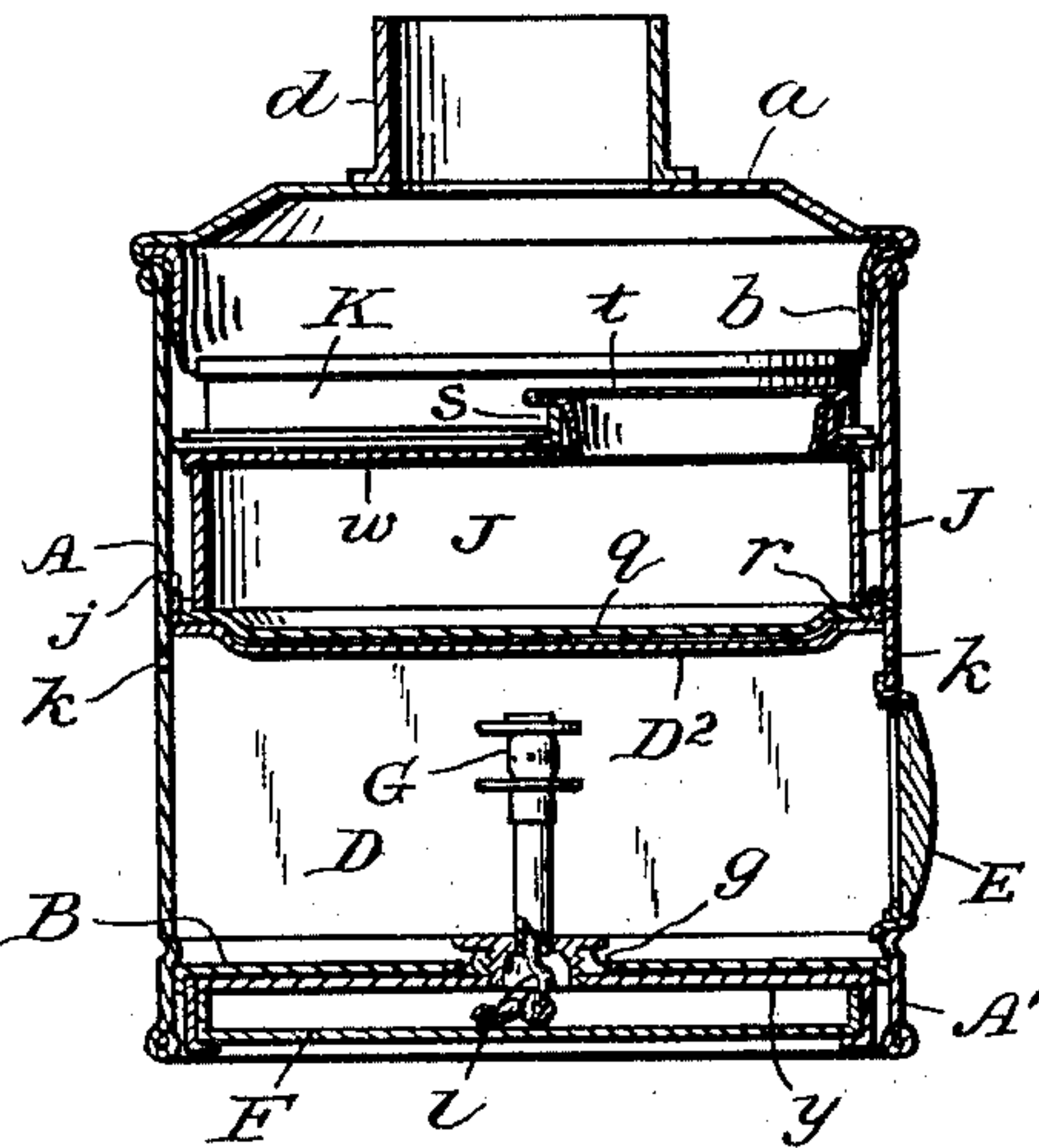


Fig. 2.

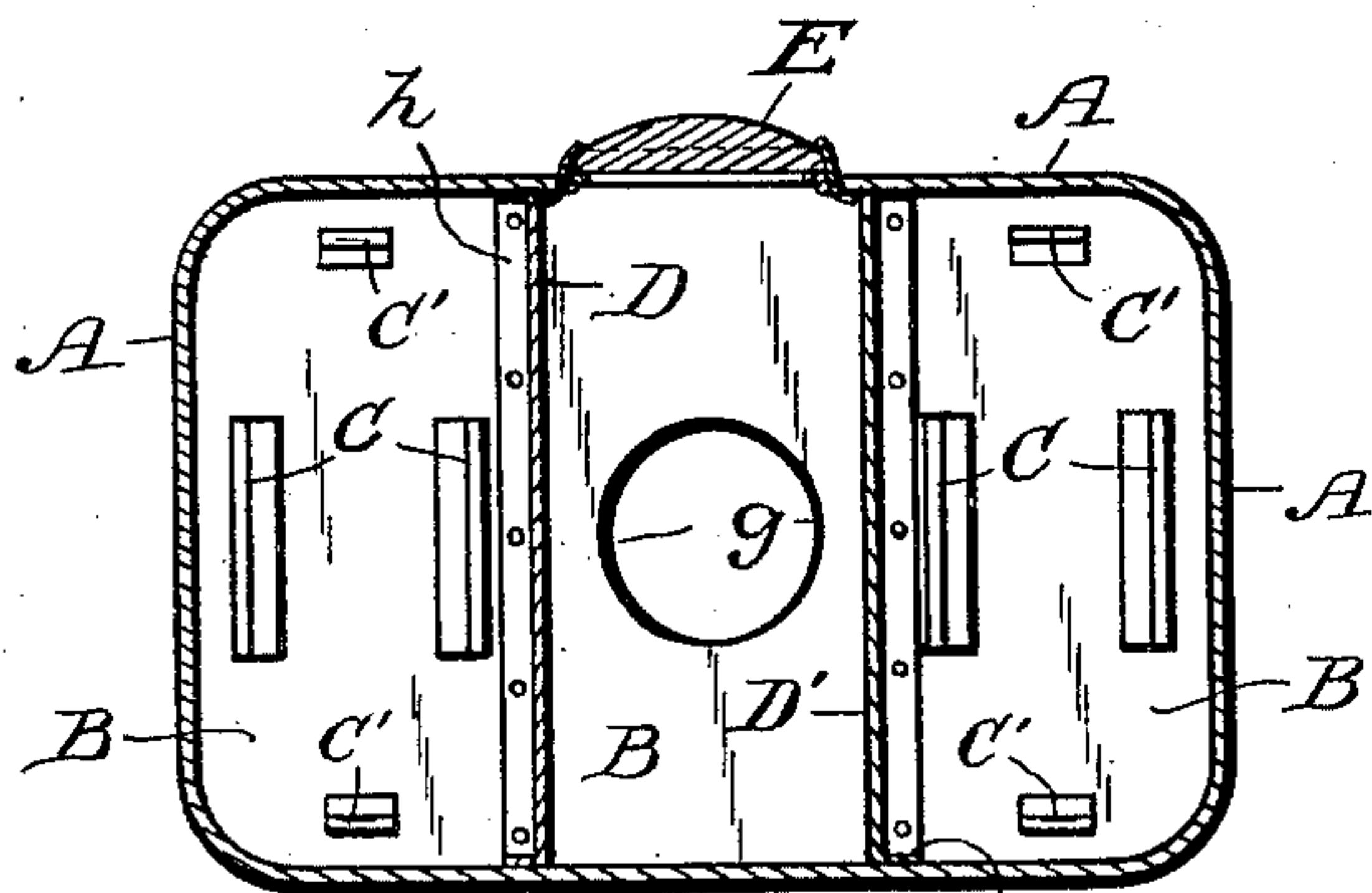


Fig. 3.

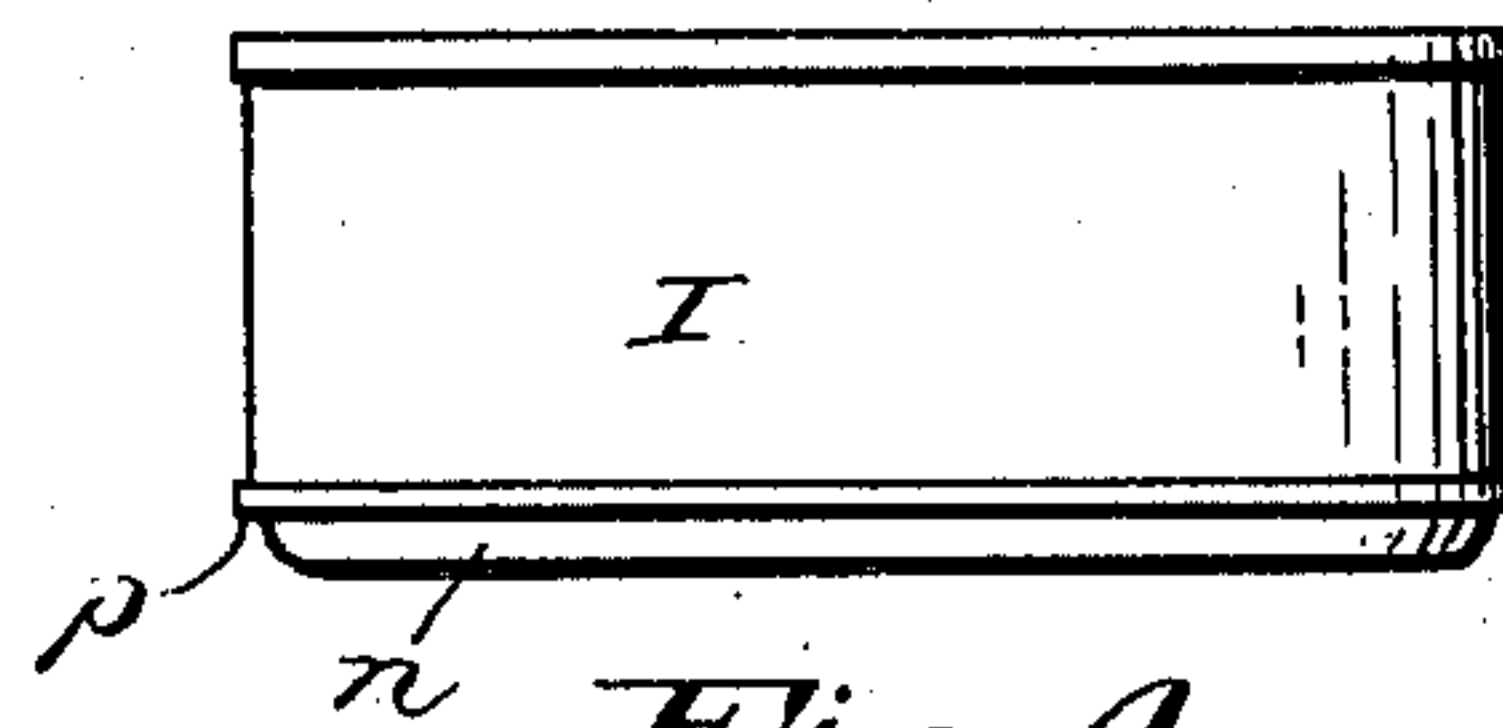


Fig. 4.

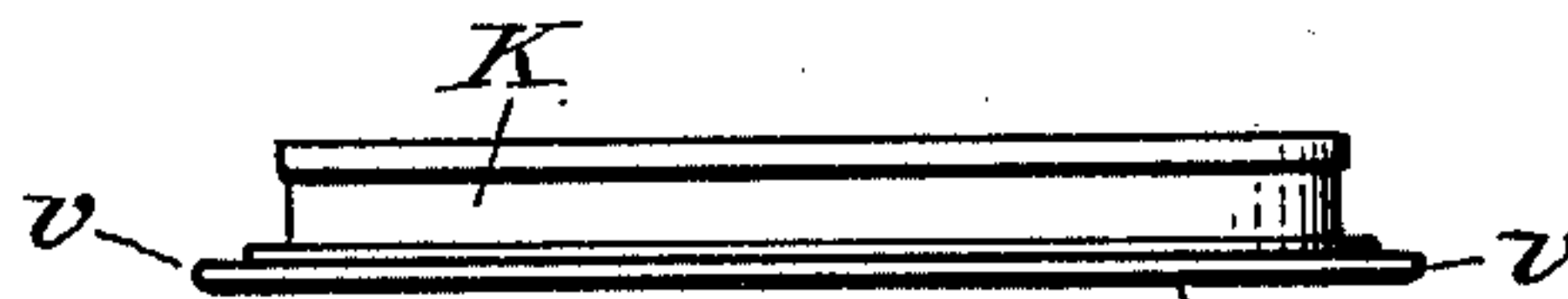


Fig. 5.

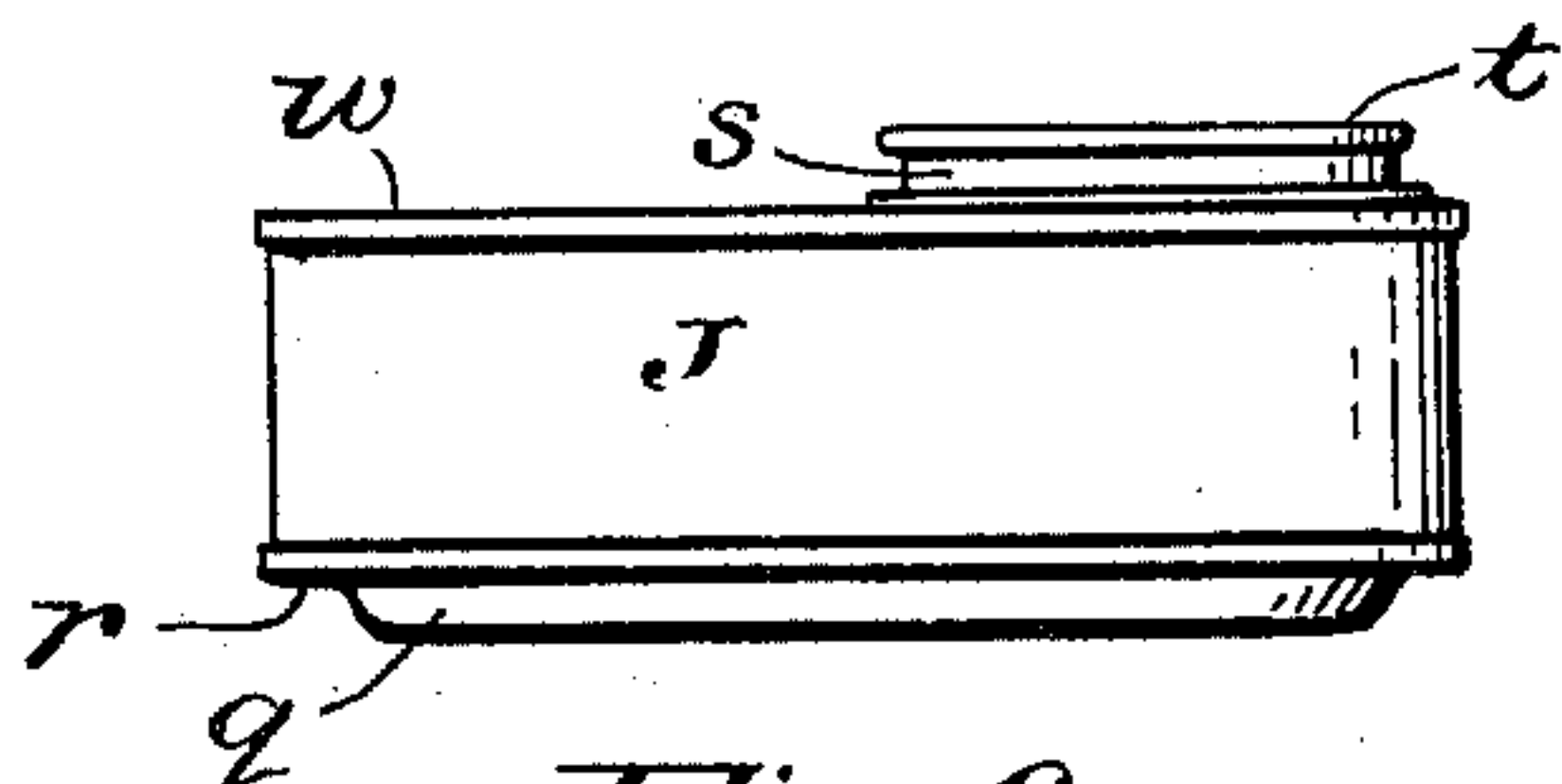


Fig. 6.

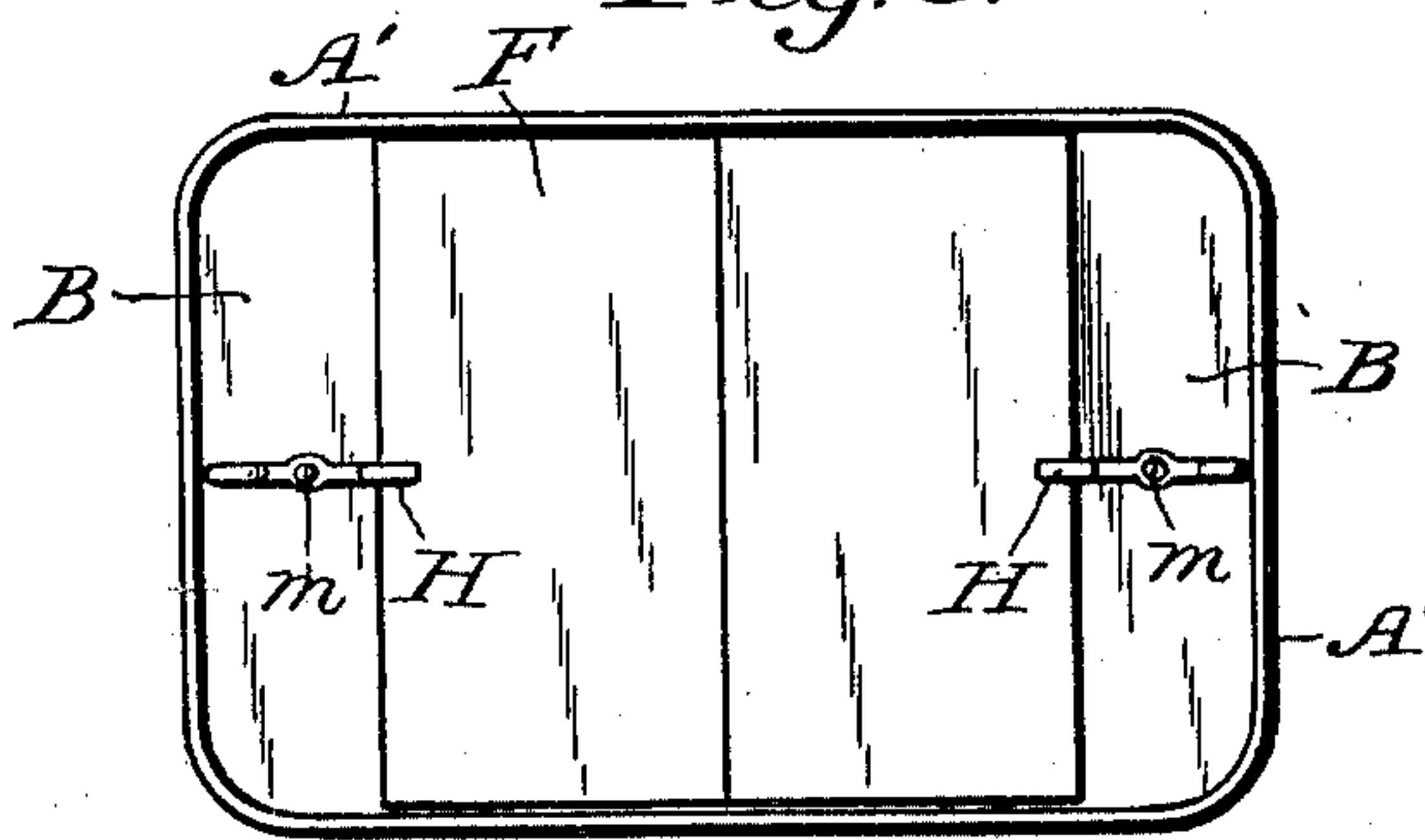


Fig. 7.

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UNITED STATES PATENT OFFICE.

BURR R. SKINNER, OF CALMAR, IOWA.

HEATED LUNCH-BOX.

SPECIFICATION forming part of Letters Patent No. 711,357, dated October 14, 1902.

Application filed January 22, 1902. Serial No. 90,734. (No model.)

To all whom it may concern:

Be it known that I, BURR R. SKINNER, a citizen of the United States, residing at Calmar, in the county of Winneshiek and State of Iowa, have invented new and useful Improvements in Heated Lunch-Boxes, of which the following is a specification.

My present invention relates to improvements in the main vessel or box, in the liquid-fuel reservoir, in the fire-box, in the burner, and also in the removable inner vessels of the box, the object of the invention being to cheaply provide a box that may be heated by means of a small flame and as uniformly as possible at small expense for fuel, also to improve circulation of the heat about the lower inner vessels.

Another object is to cheapen the construction of boxes of this character and to also provide that different kinds of burners and fuel may be employed.

These and other objects not hereinbefore mentioned are attained in the construction illustrated in the accompanying drawings, forming part of this specification, in which similar reference characters in the several figures indicate corresponding parts.

Referring to the drawings, Figure 1 is a vertical central sectional view taken longitudinally; Fig. 2, a vertical central sectional view taken transversely; Fig. 3, a horizontal sectional view on a line X X in Fig. 1 with the inner vessels omitted and showing the bottom of the main vessel and also the fire-box walls, the burner being also omitted; Fig. 4, a side elevation of one of the lower inner vessels; Fig. 5, a side elevation of one of the two upper inner vessels or pans; Fig. 6, a side elevation of the boiler or coffee-pot; and Fig. 7 is an inverted view of the bottom of the box, showing the bottom of the liquid-fuel reservoir and the securing devices therefor.

In construction the main vessel or body portion of box A may be composed of any suitable metal, preferably tin-plate, and of convenient size, and for economic reasons it is preferably oblong and substantially rectangular in plan with rounded corners. A flat bottom B is secured in any suitable manner to the body-walls, so as to be air-tight, and a deep flange A' extends downwardly

from the bottom, so as to provide a guard for the fuel-reservoir as well as a stand for the box. Upon the top of the bottom B are suitable stands C C, arranged in parallel pairs at two opposite ends of the bottom and extending only partially across the bottom transversely, and similar but shorter stands C' C' are situated also in parallel pairs near the other stands, and they extend longitudinally of the bottom. These stands are preferably composed of tin-plate, formed with flanges and soldered to the bottom B, and are designed to support the inner vessels and permit a circulation of hot air below them and also to prevent the inner lower vessels from sliding about, they being smaller than the spaces in which they are situated.

The box A has a suitable lid *a*, having the flange *b*, adapted to extend and fit into the top of the box. Upon the top of the lid is a cup-holding ring *d*, on which is an inverted cup *e*. Ears *f* are attached to the box whereby to connect a bail in the usual manner.

At the center of the bottom B is an aperture *g*, and between the aperture and the nearest adjacent stands C C are situated the side walls of the fire-box, the latter being thus situated at the lower central portion of the main vessel A.

The fire-box is composed, preferably, of a single sheet of copper of suitable thickness to receive and radiate the heat from the burner and is pressed to the required shape, so as to form two parallel side walls D D' and a roof or top plate D², extending from one side wall of the box A to the other. The walls D D' have flanges *h*, secured air-tight to the bottom B, and also flanges *i*, secured also air-tight to the side walls of the box A, and the top D² has flanges *j*, secured also to the box-walls, there being no communication between the fire-box chamber and the interior of the main vessel, in which the food is to be carried. The side walls of the box A have apertures *k* therein below the top or roof D² of the fire-box for the escape of the fumes of combustion and for draft purposes.

The roof D² is depressed except at its edges, or, in other words, it is so formed as to have a raised ledge at its edges for holding the coffee-pot centrally thereon.

At an end of the fire-box chamber an aperture is made in the wall of the box, into which a lens E is fitted and suitably held.

The reservoir F is designed to be used for retaining either gasolene or illuminating-oil, such as kerosene and lantern oil, so that burners for either one of such fuels may be employed, as may be most convenient. The reservoir has a flat top *y*, adapted to bear against the bottom B, these two adjacent parts, however, being sufficiently uneven to permit air for combustion to pass between them to the fire-box. The reservoir is approximately square in plan, and the bottom thereof is centrally depressed. A suitable burner G is secured to the top *y*, in the present case the burner being of well-known form, having a wicking-feeder *l* and adapted for converting gasolene into gas and whereby the gas may be utilized for fuel and light. When gasolene cannot be obtained, an oil-burner may be substituted for the gas-burner and used with nearly as good results. Buttons H H are pivotally attached to the bottom B by means of pivotal studs *m* and are adapted to engage the bottom of the reservoir F at the sides thereof near the ends of the box-bottom B. The buttons may be moved radially when fastening and releasing the reservoir.

Four like vessels I I' I² I³, having open tops, are arranged in the box A at either side of the fire-box. These vessels are smaller in plan than the spaces they are designed for, and they are designed to be nested and also to be transposed when desired. Each one has a depressed bottom *n*, designed to fit into the stands C C' and also to fit into the top of another like vessel, there being a plane surface *p*, adapted to rest either upon the tops of the stands or upon the upper edges of another vessel. The vessels are arranged in pairs, so that the hot air may pass under the lower vessel while its top is covered by the upper vessel, and the hot air may enter the open top of the upper vessel, one being upon the other, and the food may be arranged accordingly in the vessels in respect to its character.

Upon the top of the roof D² is the coffee pot or boiler J, having a depressed bottom *g*, adapted to fit into the ledge upon the edge of the roof, and having also a plane surface *r*, adapted to rest upon the ledge of the fire-box, the vessel J being thus retained centrally upon the roof. The top *w* of the vessel J has an aperture surrounded by a flange *s*, to which a lid *t* is fitted.

A pair of like vessels K K' are designed for two purposes—that of holding food and also to aid in preventing the hot air from rising too rapidly from the lower parts of the main vessel. The vessels K K' have open tops, their bodies being sufficiently small in diameter to clear the flange *b* of the lid *a*, while their bottoms *u* have flanges *v* extending horizontally from the body, so that when in po-

sition the broad bottoms and the coffee-pot together will form a nearly close horizontal partition in the main box, the vessels being supported partly upon the coffee-pot top *w* and partly upon lugs L, attached to the box ends, the bottoms *v* engaging the flange *s* as a stop therefor. The vessels are relatively shallow, as shown, but may of course be made of greater depth.

In practical use the utility of the invention will be particularly appreciated. At night the light may serve for illuminating purposes. In heating the food or drinks the same may be accomplished either with dry or with moist heat, as a small quantity of water may be placed in the main vessel, and if it be desired to steam bread water may be boiled in one of the vessels upon the fire-box. If it be preferred to use a kerosene-burner and such oil rather than the more dangerous gasolene, the change can be quickly made. The box-body being free from vent-holes will retain heat, as well as become warm in the shortest time with the smallest flame, which is of course the most economical.

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

1. In a heated lunch-box, the combination with the main vessel having the bottom, and having the fire-box disposed centrally upon the bottom, of the stands attached to the bottom at the sides of said fire-box, each stand comprising upright members separated from each other and also separated from the walls of said vessel and said fire-box, and the nesting vessels seated upon said stands, substantially as set forth.

2. In a heated lunch-box, the combination with the main vessel-body, of the flat bottom attached to the body above the lower end thereof, and having the central aperture therein, the fuel-reservoir having the centrally-depressed bottom and bearing against said flat apertured bottom and also against opposite sides of said lower end of the vessel-body, the fastening devices for said reservoir, the burner attached to said reservoir and extending through said aperture, and the fire-box attached to said flat bottom, substantially as set forth.

3. In a heated lunch-box, the combination with the vessel-body and the bottom, of the fire-box comprising the single sheet having the two flanges turned outwardly in opposite directions upon said bottom, and the four flanges turned outwardly, each two in opposite directions against the sides of said body, the roof of said fire-box having the flat ledge thereon, and the burner in said fire-box, substantially as set forth.

4. In a heated lunch-box, the combination with the vessel-body having the fire-box therein, of the stands at the sides of the fire-box, the vessels upon said stands, the lugs attached to the body remotely above said vessels, the boiler vessel on said fire-box extending above

said vessels, and the vessels having the extended bottoms seated upon said lugs and also upon said boiler vessel, substantially as set forth.

5 5. In a heated lunch-box, the combination of the main vessel having the centrally-apertured bottom, the central fire-box, the reservoir attached to said bottom, the burner extending from said reservoir through said aper-
10 tured bottom, the relatively long stand members extending on said bottom in pairs par-

allel to said fire-box, the relatively short stand members extending on said bottom in pairs at right angles to said long members, and the vessels on said stand members, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

BURR R. SKINNER.

Witnesses:

JOHN B. KAYE,
FRANK PLETKA.