

(No Model.)

2 Sheets—Sheet 1.

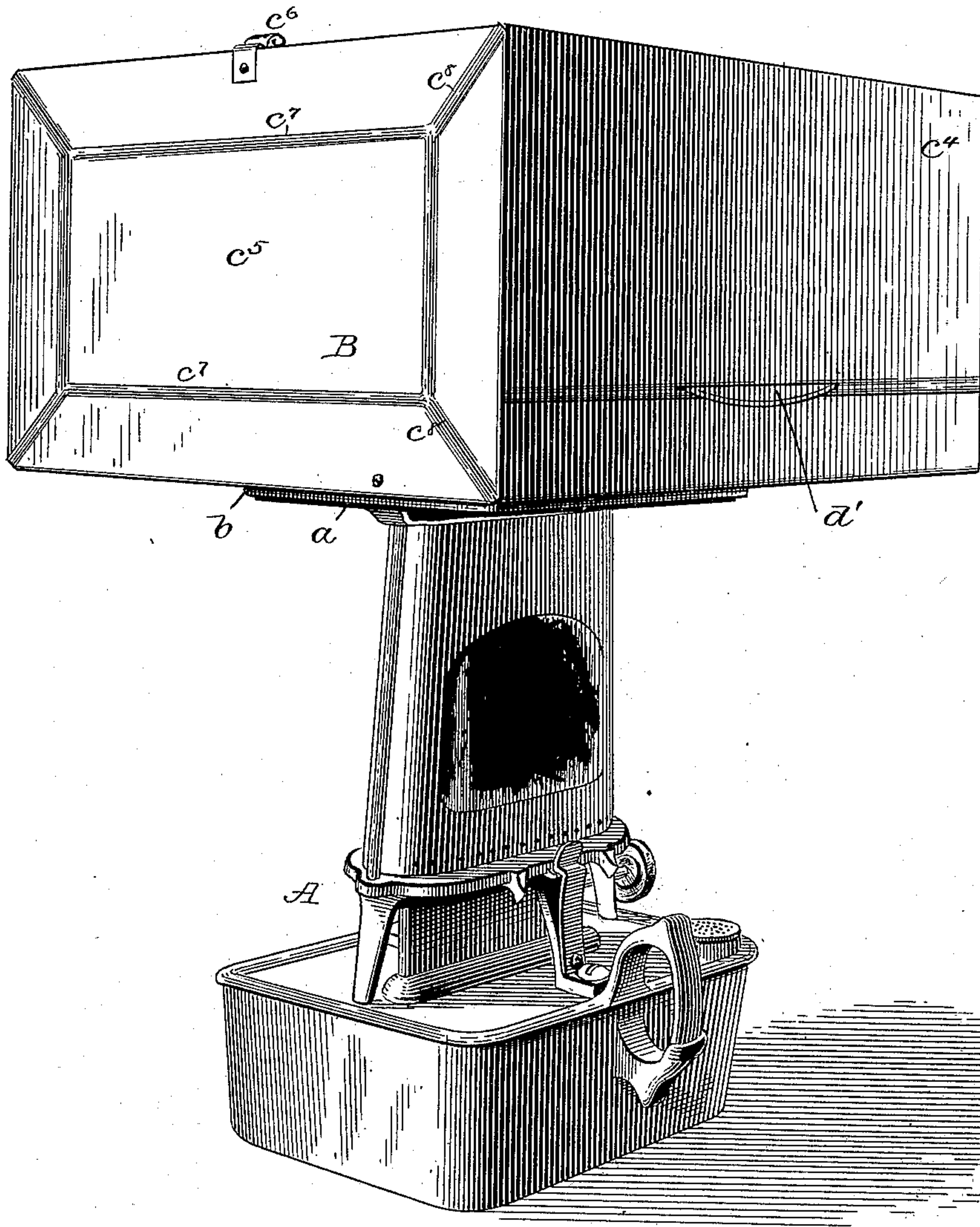
A. W. SHUMWAY.

PORTABLE TIN OVEN FOR OIL OR GAS STOVES.

No. 383,830.

Patented May 29, 1888.

Fig. 1.



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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

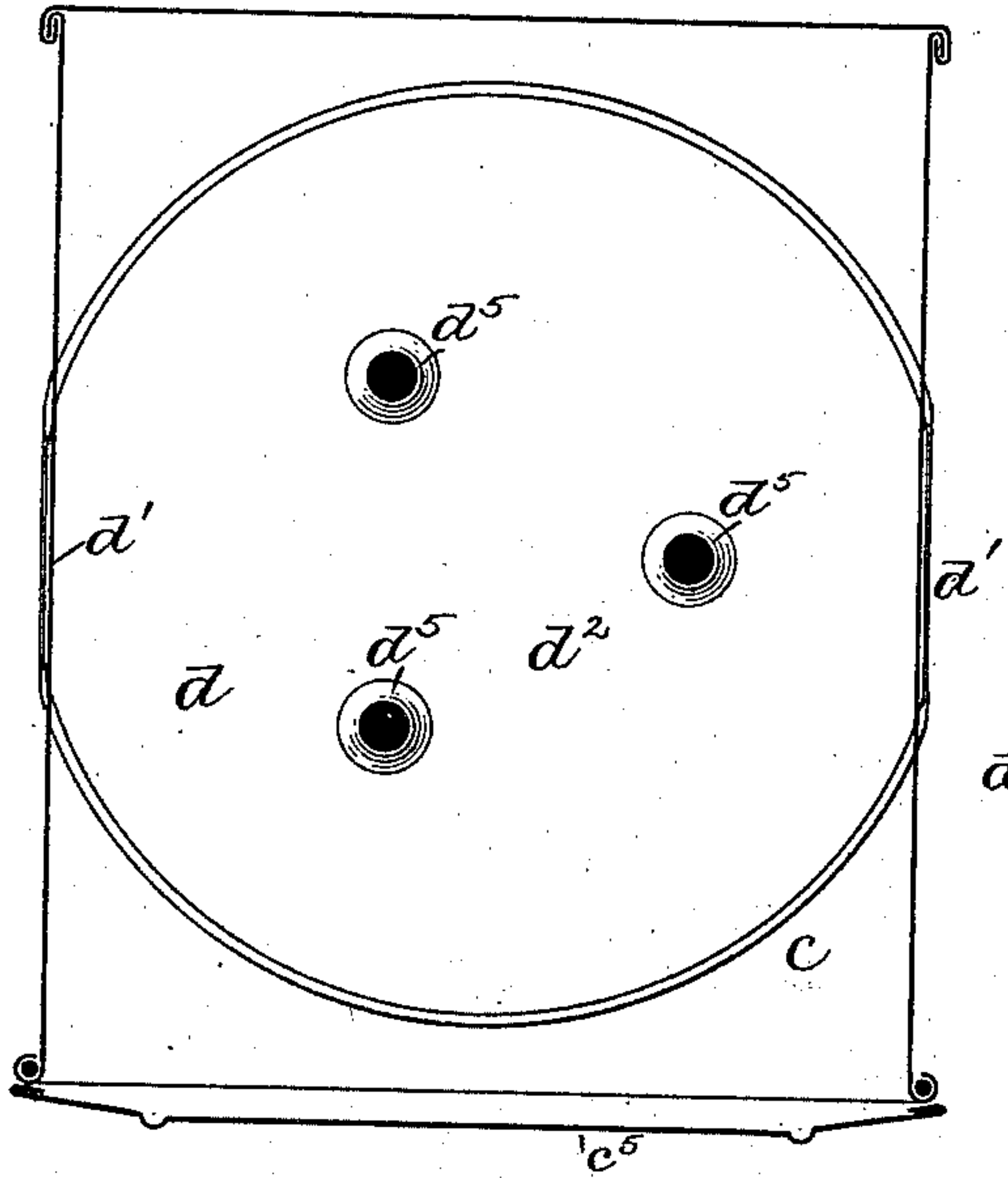


Fig. 3.

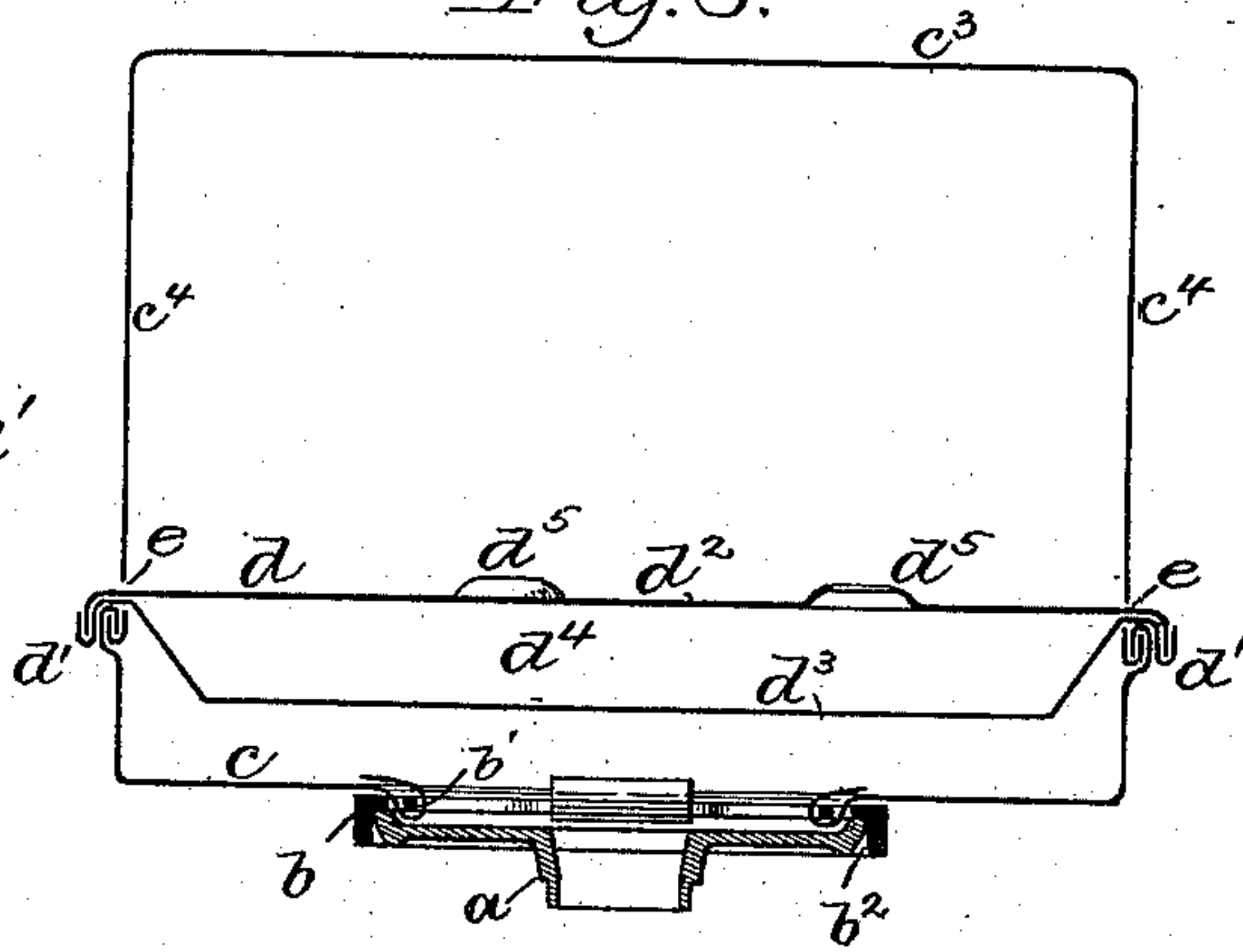


Fig. 4.

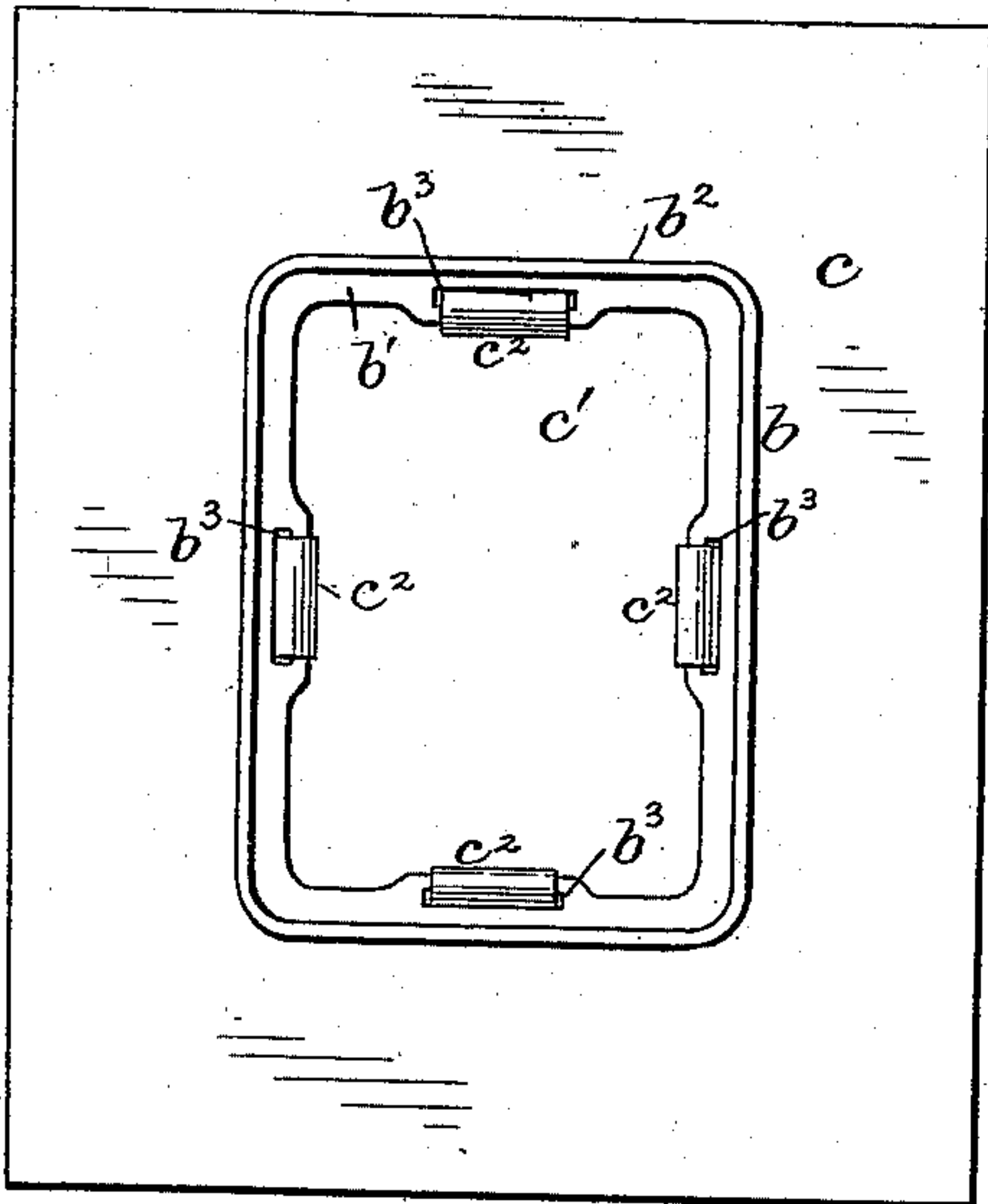
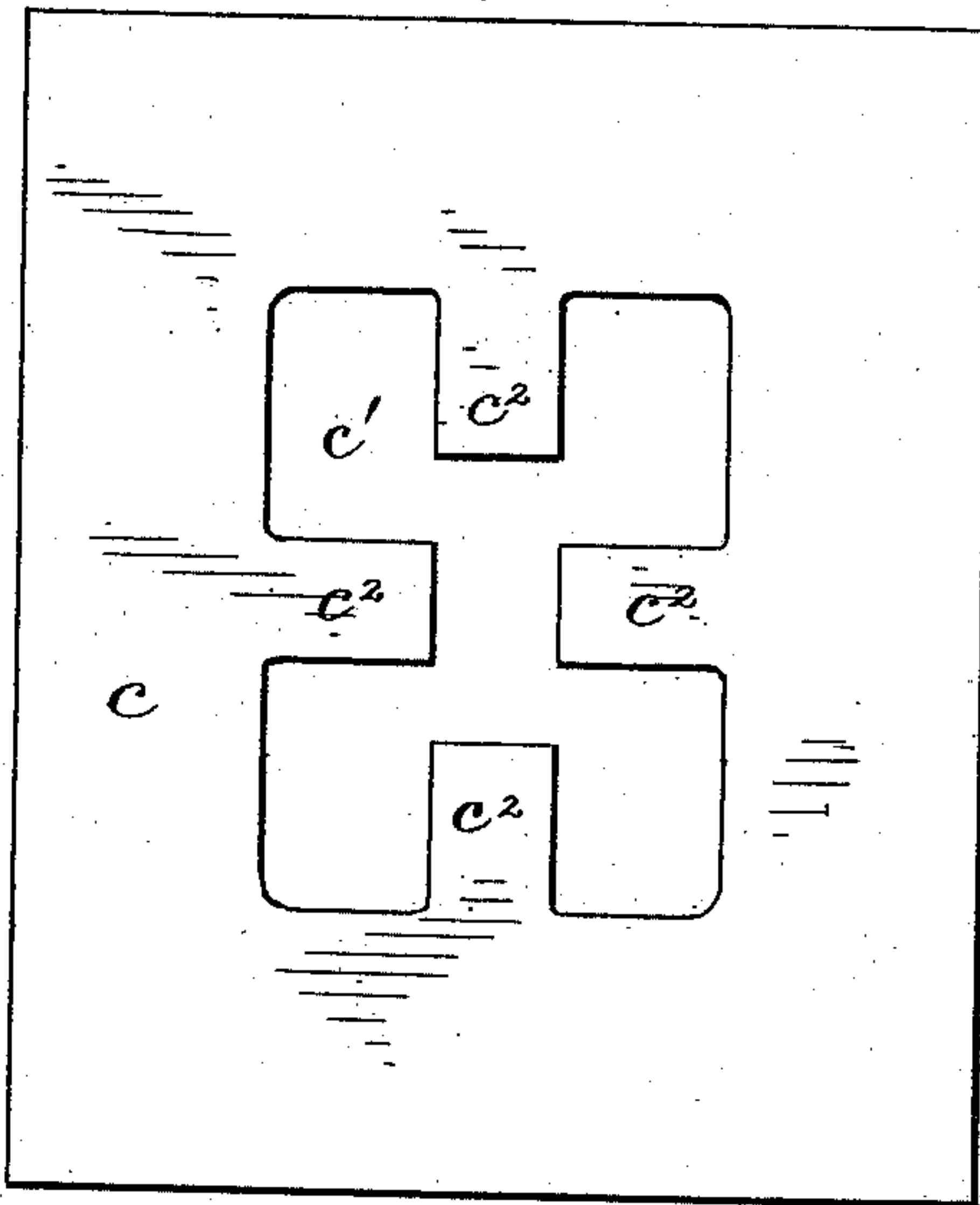


Fig. 5.



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UNITED STATES PATENT OFFICE.

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PORTABLE TIN OVEN FOR OIL OR GAS STOVES.

SPECIFICATION forming part of Letters Patent No. 383,830, dated May 29, 1888.

Application filed December 2, 1887. Serial No. 256,901. (No model.)

To all whom it may concern:

Be it known that I, ALBERT W. SHUMWAY, of Northampton, in the county of Hampshire and State of Massachusetts, have invented certain new and useful Improvements in Portable Tin Ovens for Oil or Gas Stoves; and I do hereby declare that the following specification, taken in connection with the drawings, furnished and forming a part of the same, is a clear, true, and complete description of my invention.

Although ovens embodying my said improvements have been devised with special reference to their use in connection with what are termed "hand-lamp stoves," they are applicable to the larger and heavier varieties of oil or gas stoves.

The object of my invention is to provide a thoroughly effective, durable, and serviceable portable tin oven of light weight and low cost; and after describing one of my ovens in its best form, as illustrated in the accompanying drawings, the features deemed novel will be specified in the several clauses of claims hereunto annexed.

Referring to the drawings, Figure 1 illustrates one of my ovens as when mounted upon a hand-lamp stove and ready for service. Fig. 2 is a horizontal section of the oven. Fig. 3 is a vertical central section thereof, and it also shows the turret of the stove. Figs. 4 and 5 are bottom views of the same, both without and with its base-plate.

The hand-lamp stove A is of a well-known type, and has the usual turret, *a*, on top of the chimney or drum, and it is on this turret that the oven B is mounted. Such turrets usually have straight sides and ends with rounded corners, and the oven is provided with a cast-metal base-plate, *b*, which has an inner horizontal flange or seat, *b'*, for supporting contact with the top of the turret, and a depending flange, *b''*, which conforms to the outline of and surrounds the top of said turret for securing the oven against lateral displacement.

The bottom *c* of the oven is composed of tin and has an opening at *c'* corresponding to the shape of the turret, and in cutting the tin-plate to form this opening several integral ears, *c''*, are developed, each projecting toward the center of the opening, as indicated in Fig. 5.

The base-plate *b* has in its horizontal flange

b' as many slits or narrow openings *b'''* as there are ears *c''*, and said slits are correspondingly located, so that when said plate has been placed in its proper position said ears may each be passed downward and through its proper slit, and then clinched by being bent upward and outward, and thus to securely unite the oven and plate, thus obviating expensive riveting and the use of solder, which would be objectionable owing to the liability of melting when the oven was in service, and it also provides for the unequal expansion and contraction of the sheet-tin and the cast metal thus united.

The sides, top, and one end of the oven may be variously constructed; but I obtain the best results by having the top *c'''* integral with the main portions *c''* of the sides, and I unite the several pieces by means of interlocking joints without solder. The door *c''* of the oven is hinged at its bottom, and it is provided with a simple catch, *c'''*, for maintaining it in its closed position. The door, although composed of light tin, is made stiff and rigid by means of a rectangular rib, *c''''*, and mitered ribs *c'''''* at the corners, and the entire rim is beveled, and the edges are folded flatly, thus securing a tight fitting door, which is not liable to be warped or twisted out of shape. These ribs and the beveled ends and sides are economically developed by means of suitable dies and a press.

Within the oven there is a shelf, *d*, devised with special reference to deflecting the heat laterally and distributing it toward and upward at the four corners of the oven, in that said shelf is circular and within a rectangular or substantially-square baking space. Said shelf has been also devised with special reference to duty as a lateral strengthening-brace, in that at its two sides it is firmly united to the side walls of the oven, and this is economically effected by providing a slit, *e*, in each side of the oven, and having portions of the shelf projected through said slits, and bent and clinched, as at *d'*, upon the outer side, so as to thoroughly secure the shelf in position. Said shelf has been also devised with special reference to obviating undue heat at the bottom of a pan placed thereon, thus avoiding all liability of bottom-burning in baking. This is effected by making said shelf in the form of an air-chamber, the top *d''* of said chamber being

the top of the shelf, and the bottom d^3 being directly exposed to heat from the stove, and affording an intermediate air-space, d^4 , vented through several openings, d^5 , in the top part
5 of the shelf. These openings d^5 have annular raised flanges, and serve as the immediate supports for a plate or pan containing food to be warmed or baked.

The bottom d^3 of the shelf has an integral
10 beveled and horizontal flange, and this is bent over and clinched upon the top d^2 , thus affording great strength and rigidity to the shelf and also to the entire oven when the shelf is mounted as described.

15 It will be seen that an oven thus constructed involves but little labor, and that although it is composed of extremely light material it is strong and durable, and that in baking there will be little if any liability of burning at the
20 bottom of a pan supported upon the air-chambered shelf.

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

25 1. In a portable oven, the combination, with a flanged and slitted base-plate adapted to fit the turret of a stove, of the sheet-metal oven-bottom having an opening therein, and inte-

gral ears which are passed through the slits of said base-plate and clinched thereon, substantially as described. 30

2. In a portable tin oven, the combination, with the slitted side walls, of a shelf which is projected through the slits in said walls, and is bent and clinched at the outer surface of said walls, substantially as described. 35

3. In a portable tin oven having a rectangular baking-space, the combination of a circular shelf secured to the side walls, and a base-plate through which heat passes into the oven below said shelf, substantially as described, 40 whereby the heat is deflected laterally and evenly distributed at the four corners of the oven.

4. In a portable tin oven, the combination of slitted side walls and a hollow or air-chambered shelf projecting through slits in the walls of the oven and bent or clinched upon the outer sides of said walls, substantially as described. 45

ALBERT W. SHUMWAY.

Witnesses:

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CHAS O. PARSONS.