

No. 611,818.

Patented Oct. 4, 1898.

S. PALMER.
LAUNDRY STOVE.

(Application filed Sept. 18, 1897.)

(No Model.)

2 Sheets—Sheet 1.

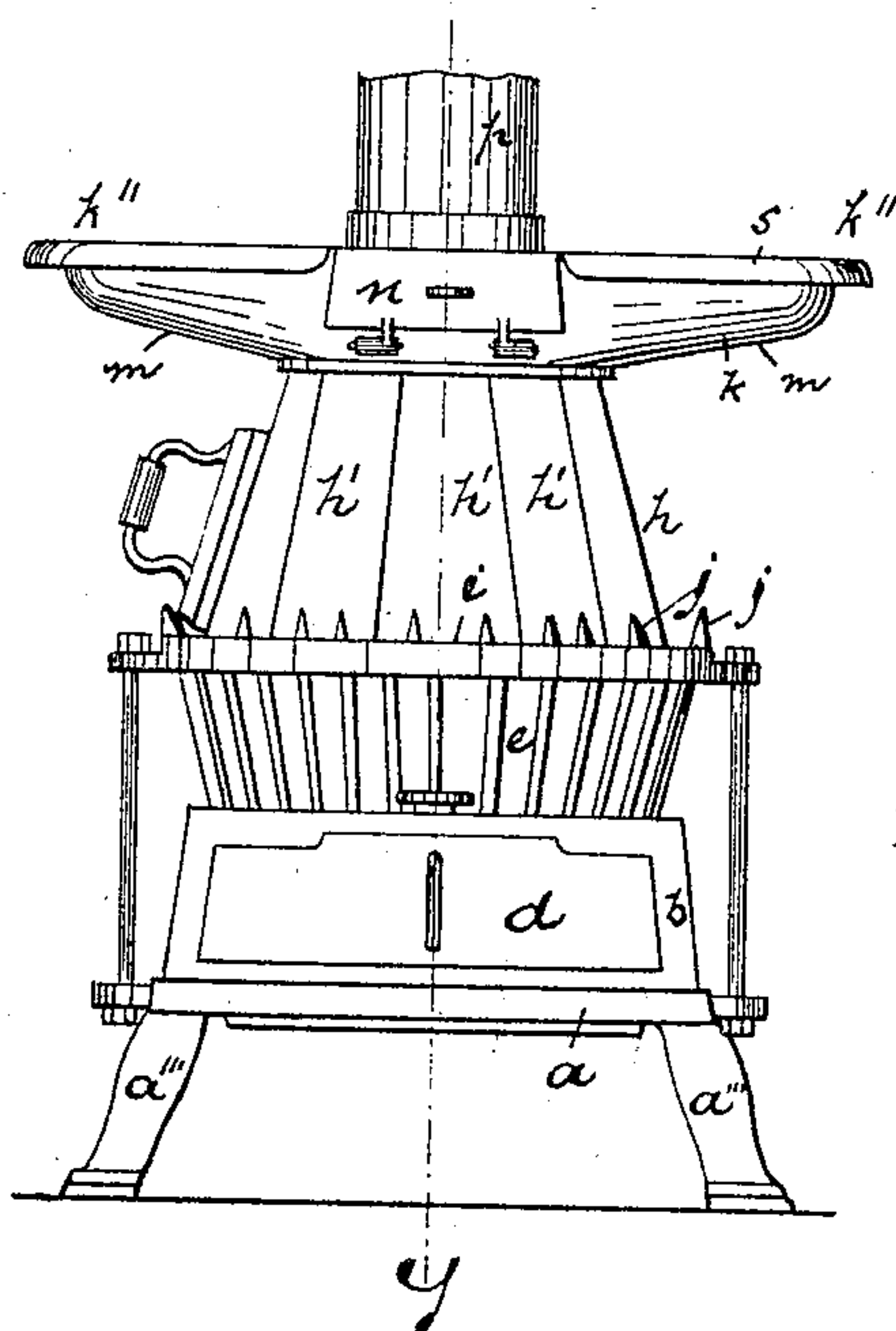


Fig. 1.

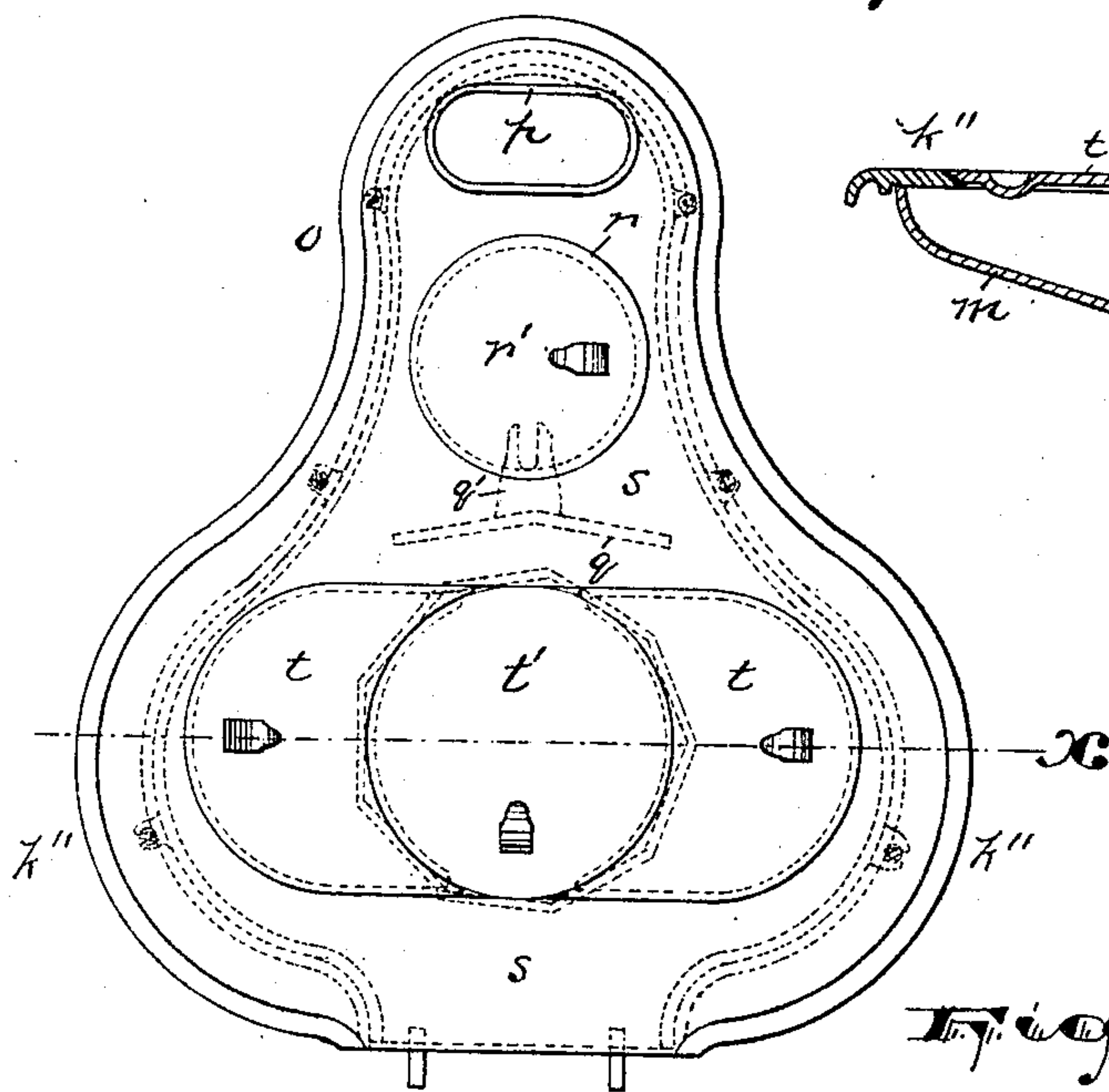


Fig. 2.

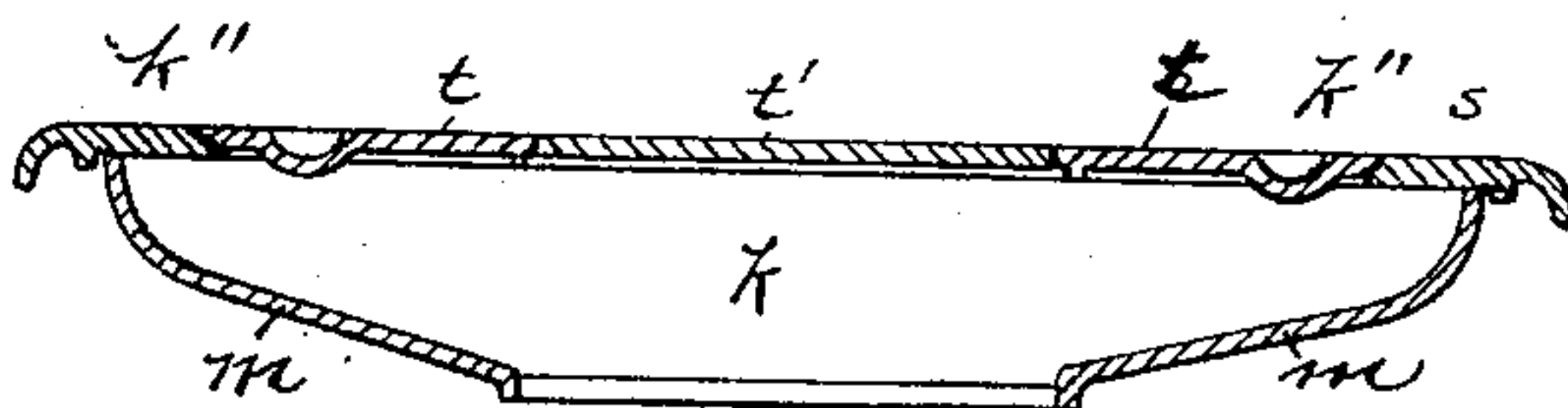


Fig. 3.

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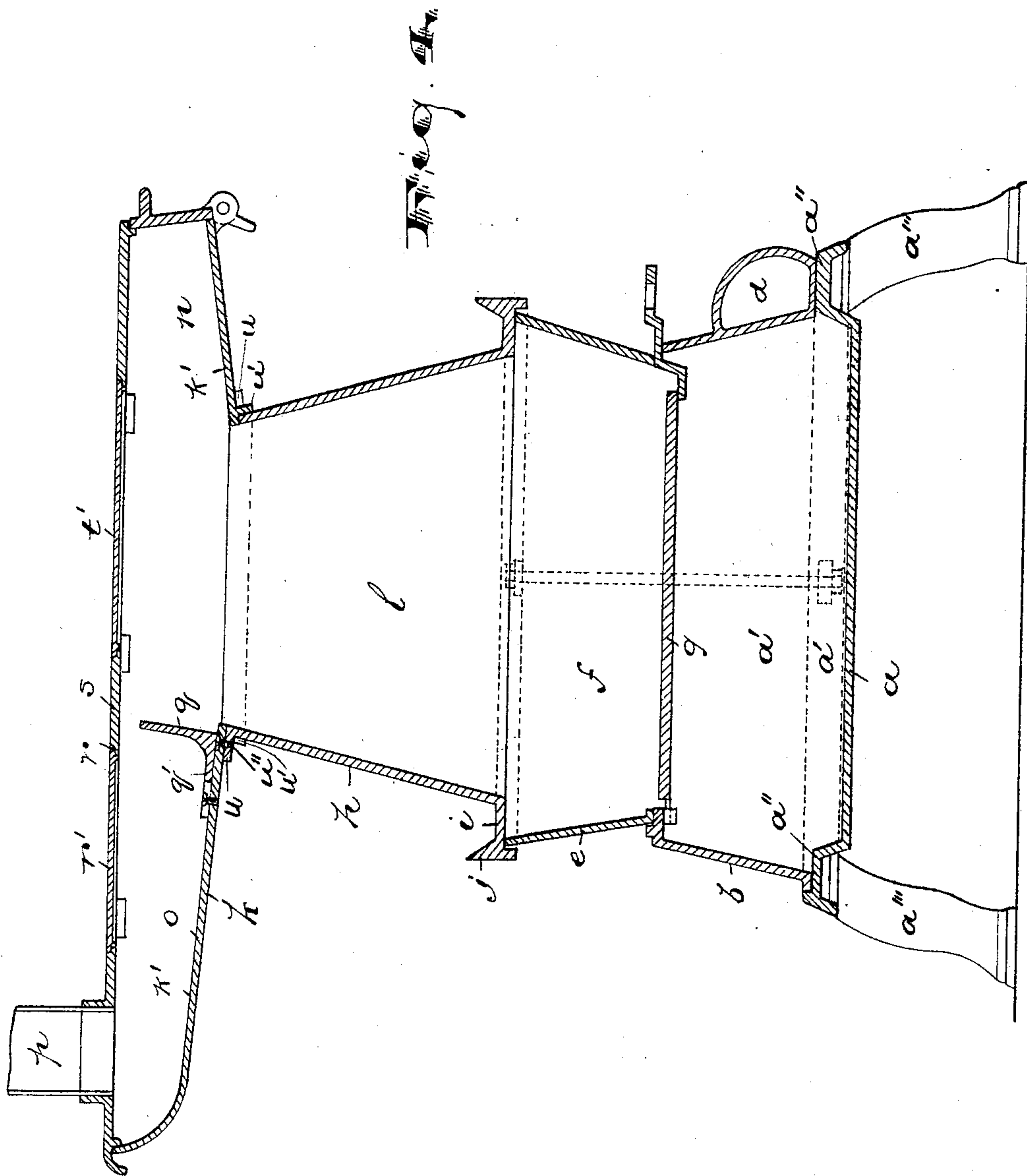
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UNITED STATES PATENT OFFICE.

SAMUEL PALMER, OF NEWARK, NEW JERSEY.

LAUNDRY-STOVE.

SPECIFICATION forming part of Letters Patent No. 611,818, dated October 4, 1898.

Application filed September 18, 1897. Serial No. 652,091. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL PALMER, a subject of the Emperor of China, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Laundry-Stoves; and I do 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 letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a more convenient stove for laundry purposes, and more particularly for that class of laundries operated by Chinamen, in which large oblong boilers are employed for boiling the clothes, the boiler being of considerable height and containing when full thirty or more gallons of water, and thus being of very considerable weight and not conveniently handled, the objects of the present improvements being more particularly to enable the laundryman to use his laundry-stove for cooking purposes while the clothes are being boiled and the irons heated. Other objects and results are obtained, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved laundry-stove and in the arrangements and combinations of parts thereof, all substantially as will be hereinafter set forth, and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the views, Figure 1 is a front elevation of the improved stove. Fig. 2 is a plan of the same. Fig. 3 is a section of the upper part of the stove, taken on line *x*; and Fig. 4 is a central vertical section taken on line *y*.

In said drawings, *a* indicates the base-plate, which is slightly raised at the margin and depressed at the center to give increased depth to the ash-pit *a'*.

b is a casting which is seated on the raised margin *a''*, Fig. 4, and extends around at the four sides of the stove, and at the front the said casting is provided with an opening to

receive the front damper *d*. The base-plate *a* and the casting *b* serve together to form the said ash pit or chamber *a'*. Legs *a'''* may elevate the base-plate or casting from the floor.

Above the casting *b* is another casting *e*, preferably round in plan, which forms a fire-chamber *f*. This flares upwardly or is of a funnel shape and is or may be interiorly lined with fire-brick in any suitable manner. At the bottom it provides bearings for a suitable grate *g*, upon which the fire is laid.

Upon the casting *e* is another casting *h*. This is angular in form and provides a series of inclined flat heating-faces *h' h' h'*, against which the irons are laid to be heated. The said casting *h* provides at the lower end of each heating-face a ledge or shoulder *i*, upon which the irons rest as they lie vertically or slightly inclined against the heating-surfaces. Said ledges are provided with stay projections *j*, which serve to hold the irons in place, preventing them from being thrown from against the said heating-surfaces. The said ledge *i* is of considerable horizontal width, and the stay projections *j* are placed at its outer edge, leaving a wide space between the inclined heating-faces and the stay projections to receive the edge of the iron as it is stood upright. This construction becomes very useful when the heating-surfaces have been somewhat warped and bulged outward by long use under intense heat and enables the iron to still be placed in position by setting the bottom edge outward. Said ledges and stay projections are cast in one piece with the casting *h*.

Above the casting *h* is arranged the stovetop *k*, which is of peculiar construction and is particularly adapted for the purposes above referred to. This consists of upper and lower castings *k' s*. The lower casting of the top is centrally open to provide a passage from the heat-chamber *l* below. At the opposite sides of said opening or passage the casting extends laterally, as shown in Fig. 3, to receive the oblong boiler and to conduct the heat to the opposite ends thereof. The opposite extensions *k'' k''* of the casting *k'*, at the bottom thereof, are inclined, as indicated at *m m* in Fig. 3, the purpose of which is to throw the heat up against the bottom of the boiler and on the outside to form inclined walls, so that

the irons when placed upon or removed from the heating-surface h' h' will not be obstructed by the said extensions m , but the operations of placing and removing will not be interfered with. At the forward side of the said casting k' the same is provided with a coal supply or feed passage n , and at the rear the said casting has a long backward extension O , at the rear end of which is attached or formed means to receive the smoke-pipe p .

Between the central passage or opening and the rearward extension of the casting k' is arranged a vertical plate q , which serves to deflect the heated air and throw the same laterally into the lower extensions of the stove, so that the said air will pass to the ends of the boiler-bottom before passing up the smoke-stack or flue. This deflecting-plate q has a foot q' , by means of which it is screwed or bolted to the inner surface of the lower casting k' of the stove-top. Said plate is thus fastened to stand approximately in line with the wall of the heat-chamber l and form an upward continuation of the back part of said wall. The heated air is thus prevented from immediately escaping through the rearward extension and up the smoke-pipe and is instead directed upward toward the cover t' , then passing laterally into the side extensions of the stove-top and thus around the ends of said deflecting-plate q .

Above the casting k' is the top plate s , which provides at the front a large oblong opening in which the boiler is seated. The said opening is suitably provided with covers or lids $t' t' t'$, adapted to fit the same and close said opening when the boiler is not in use. Said covers are preferably three in number, the two opposite end ones fitting the ends of the oblong opening and being concavely curved at their adjacent edges, so as to form when in place a circular opening at the middle of the large oblong opening which may be closed by a cover t' . This central circular opening is thus directly over the fire below, and the heat rising straight upward will be caused by the deflecting-plate q to strike the cover t' before passing to the lateral extensions and around the ends of the deflecting-plate, as has been described. This construction of covers greatly facilitates the use of the stove for heating a small pot or kettle when the large boiler is not on the stove. Instead of having to put such small kettle on the opening r at the back part of the stove or else setting it on the top of the stove or on an opening at one side, the front middle cover t' may be removed and the kettle set directly over the fire in the hottest possible place.

Heretofore in stoves of this nature the rearward part of the casting k merely received the smoke stack or pipe p and no means were afforded to permit the laundryman to do any cooking while the boiling operations were being conducted. In my improved device the rearward extension is made of considerably greater length, as shown in Fig. 4, and I pro-

vide another opening or pot-hole r , over which may be seated cooking utensils, and thus the laundryman may not only boil his clothes and heat his irons, but in addition thereto and at the same time cook his food. Said pot-hole r is fitted with a lid or cover r' .

The walls of the casting k' , which supports the top plate s , are inclined upward and outward from the bottom edges of the casting, which are fitted to the casting h to the upper edges, which meet the top plate s . This construction not only guides the heat upward to the ends of the boiler, as has been described, but permits free access to the iron-heating surfaces. Heretofore it has been necessary to assume a very awkward position of the body in placing the irons on said iron-heating surfaces and removing them in order to avoid burning the wrist by contact with the lower outer edges of the extensions. By my construction this obtrusive outer edge is done away with and a much larger angle is formed between the under surface of the extensions and the iron-heating surfaces, permitting the irons to be readily put in place and removed without danger. Furthermore, the inclined walls of the casting k' enable the stove-top to support a much greater weight than if the walls extended horizontally outward and then upward, the said inclined walls serving as braces to hold up the top plate s and any weight placed upon it. My stove will thus permit the use of a large heavy boiler without danger of breaking the castings forming the extensions and without necessitating the use of legs or upright supports reaching from said extensions to the floor, as has been common heretofore. The formation of the lower casting k' of the stove-top thus serves the threefold purpose of guiding the heat into the lateral extensions, providing free access to the iron-heating surfaces, and securing greater strength of the stove-top.

Upon the casting k' is arranged the top plate s , which provides the long opening at the front provided for by the lateral projections $k'' k''$, whereby the front of the stove is adapted to receive the long boiler, and a smaller rear opening for the cooking utensils.

The means for uniting the casting k with the casting h , having the iron-heating surfaces, are formed outside of the casting h , so as not to be brought into direct contact with the live fire. Thus the said means of attachment are protected from the fire and the parts are held together a greater length of time, rendering the stove much more durable. Said means preferably comprise an outwardly-projecting flange u at the upper edge of the casting h , adapted to receive and support the inner edges of the lower casting k' of the stove-top. The said flange u is apertured or cut away at suitable points to provide for lugs or projections u' , which extend downward from the casting k' of the stove-top and lie against the outer surface of the casting h , preventing lateral displacement. To give additional firmness,

bolts or screws u'' are passed through the top casting k' and flange u' , where they come flat-wise together.

Having thus described the invention, what I claim as new is—

1. The combination in a laundry-stove of an angular casting h , forming iron-heating surfaces, seated upon the fire-chamber, and having at its lower end an outwardly-projecting peripheral ledge i , adapted to receive the ends of the irons and stay projections at the outer edge of said ledge to hold said irons in place, and said casting having at its top an outwardly-projecting flange u , segments of which are cut away, a stove-top seated upon said flange u , and having downwardly-projecting lugs adapted to extend through the spaces in said flange u , and screws or bolts passing through said top and flange whereby said top is secured to the angular casting without the fastening means being exposed to the fire, substantially as set forth.

2. The combination in a laundry-stove, of

a base a , casting b , forming an ash-pit, casting e , forming a fire-chamber, and angular casting h , having inclined exterior iron-heating surfaces and at its top an outwardly-projecting flange u , segmentally cut away, of a top k , comprising a lower part fitting at its bottom upon the flange u , and being screwed or bolted thereto, and having lugs u' , which extend downward through the spaces in said flange and lie against the outer surface of the casting h , the walls of said lower part k' , of the top being inclined upward and outward permitting free access to the said iron-heating surfaces, and a top plate s , supported by said lower casting and braced thereby, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 14th day of September, 1897.

SAMUEL PALMER.

Witnesses:

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