J. SCHOFIELD.

ATTACHMENT FOR GAS STOVES AND THE LIKE.

APPLICATION FILED FEB. 17, 1910.

978,402.

Patented Dec. 13, 1910.

2 SHEETS—SHEET 1.

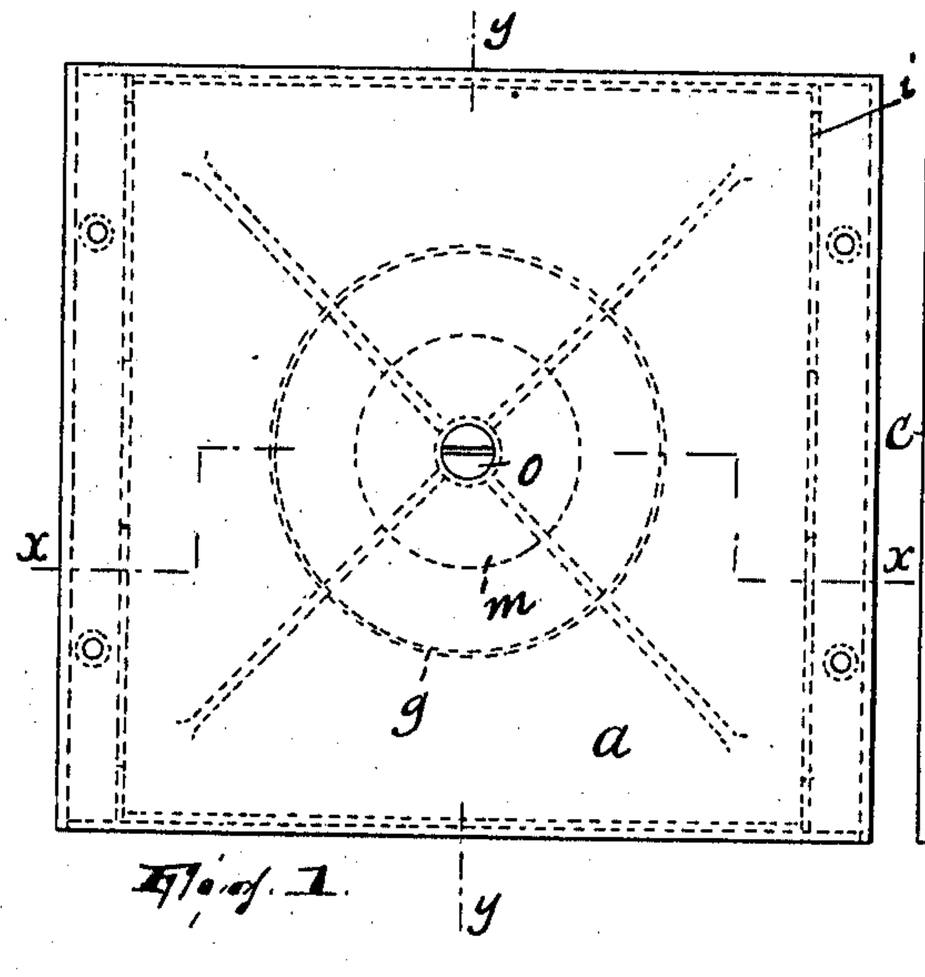

Fig. 1.

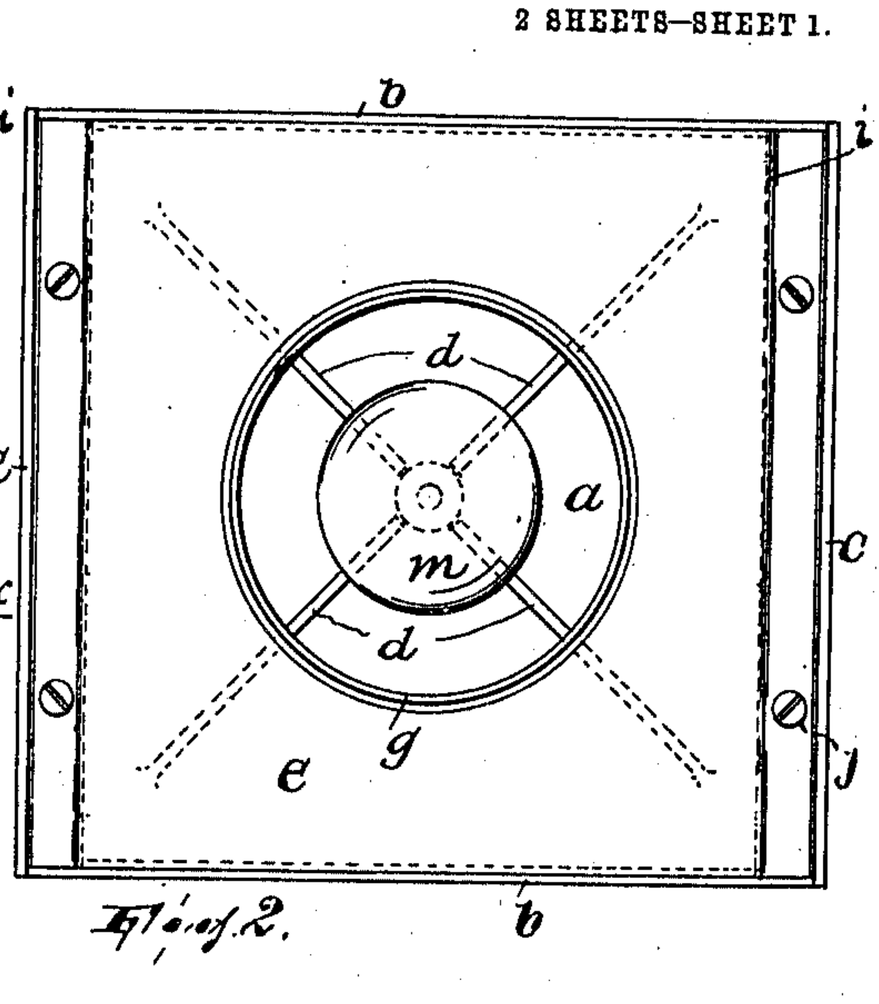

Fig. 2.

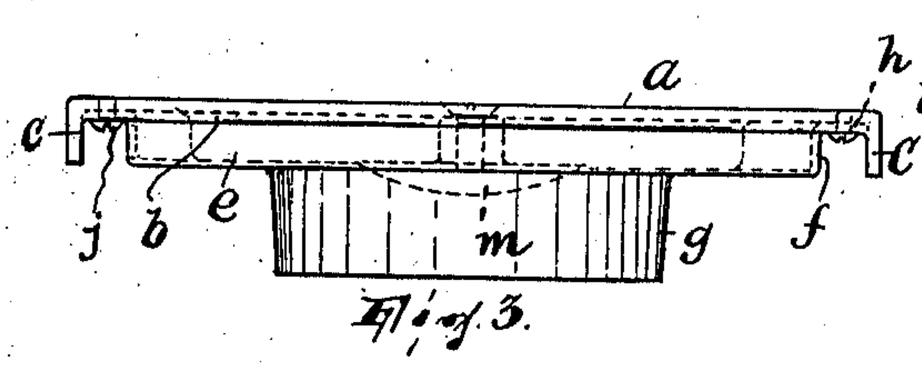

Fig. 3.

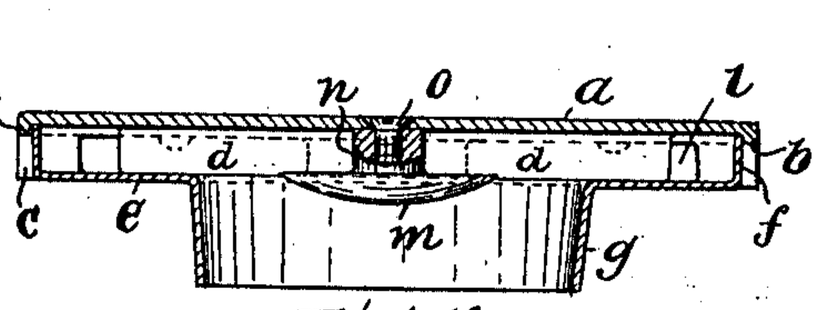

Fig. 4.

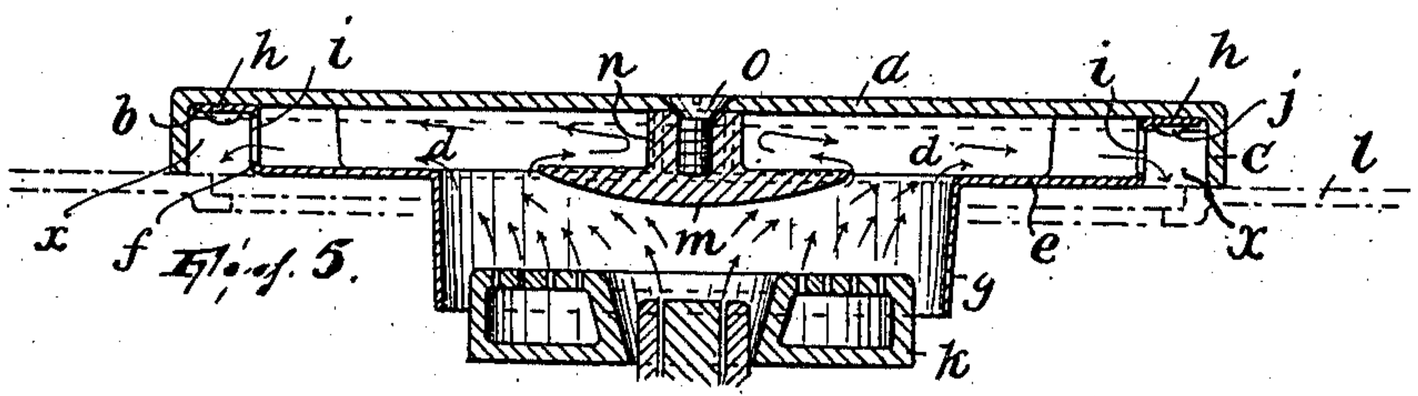

Fig. 5.

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2 SHEETS—SHEET 2.

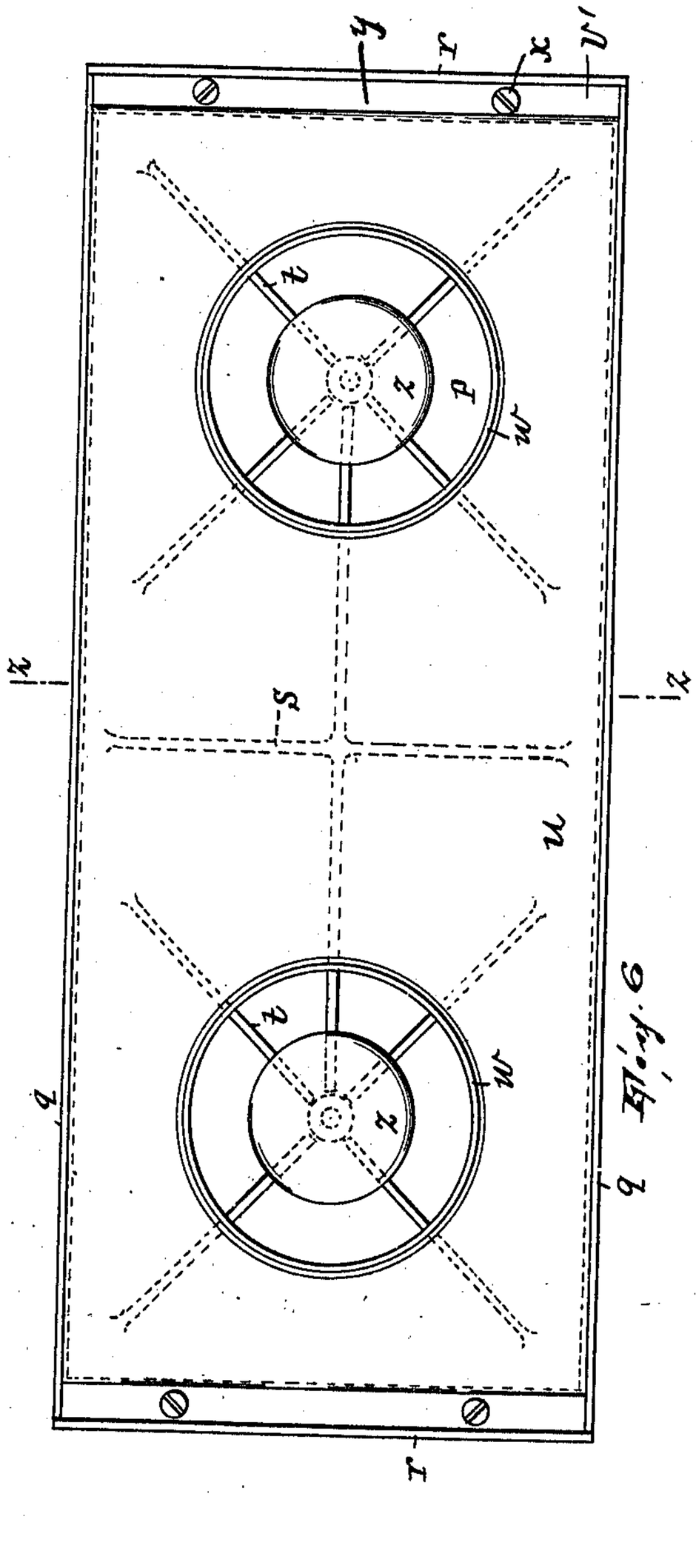

Fig. 1.

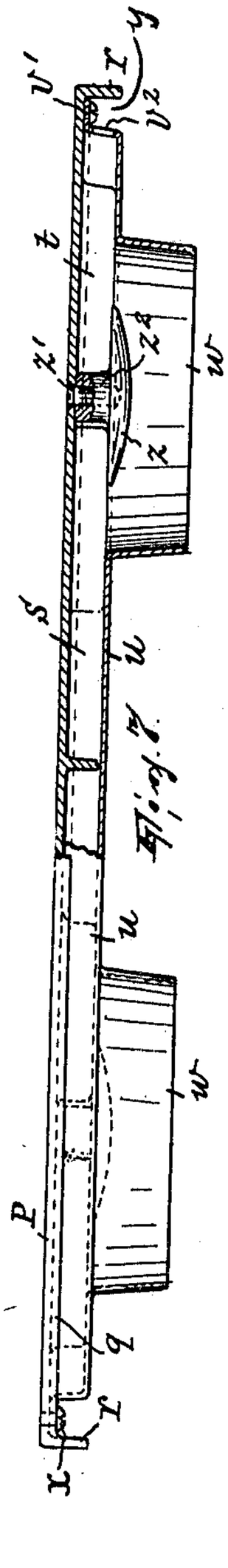

Fig. 2.

Fig. 3.

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ATTACHMENT FOR GAS-STOVES AND THE LIKE.

978,402. Specification of Letters Patent. Patented Dec. 13, 1910.

Application filed February 17, 1910. Serial No. 544,459.

To all whom it may concern:

Be it known that I, JOHN SCHOFIELD, a citizen of the United States, residing in Paterson, Passaic county, New Jersey, have invented a certain new and useful Improvement in Attachments for Gas-Stoves and the Like; 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 an inexpensive, compact and durable device for supporting articles to be heated on a gas stove or the like in such way as to economize the heat to the fullest extent.

The invention consists in certain features of construction and arrangement of parts whereby a device is produced which may be manufactured and sold at the minimum of cost, is readily applicable to various sizes and styles of stoves, and will economize the heat to the fullest extent.

The invention has been fully illustrated in the accompanying drawing, wherein,

Figure 1 is a plan view of the device; Fig. 2 an underneath plan; Fig. 3 a front elevation; Fig. 4 a substantially sectional view on line *y*—*y*, Fig. 1; Fig. 5 a sectional view on line *x*—*x*, Fig. 1, the device being drawn to a large scale and a burner being shown in section in operative relation thereto; Fig. 6 is a bottom plan view of a modification; Fig. 7 a front elevation thereof, partly in section; and, Fig. 8 is a sectional view on the line *z*—*z* of Fig. 6.

The generally flat hollow body above indicated is preferably constructed as follows: *a* is a top member in the form of a rectangular plate having along two opposite edges thereof on its under side the beads *b*, and along the other two sides thereof on its under side the flanges *c*, depending therefrom. Diagonal ribs *d* are also preferably formed on the under side of said member *a* to give strength thereto, the same extending toward but not to the corners of member *a*. The lower member *e* consists of a rectangular plate having its lateral edges turned up to form the continuous flange *f* and having centrally thereof a downwardly projecting throat portion *g*, which is preferably circular in plan and also flares upwardly. The parts *a* and *e* may both be castings or both of sheet metal; but in the present instance, and in accordance with the preferred form, the part *a* is a casting and the part *e* is pressed sheet metal. The flanges at two opposite sides of the member *e* are formed with extensions *h*, turned outwardly, horizontally, at right angles; these same flanges have the orifices *i*. The members *a* and *e* are so assembled, the former upon the latter, as to bring the extensions *h* of the flanges of member *e* in coincidence with the flanges *c* of member *a*, in which arrangement the other two flanges *f* of member *e* coincide with the beads *b* of member *a*, it being understood that the beads *b* and flanges *c* of member *a* surround the edge-portions of member *e*. The parts may be secured together in this arrangement by screws or the like *j* passed through extensions *h* of the flanges of member *e* into member *a*. Thus a structure is formed which is hollow and generally flat; it is also light, strong and durable in construction, the ribs *d* of member *a* rest on member *e* and thus increase the durability of the device and resist its warping out of shape.

As shown in Fig. 5, the portion *g* forms a throat adapted to receive the burner *k* of a gas stove, on the top *l* of which the device may be supported, its member *e* as well as the flanges *c* of its member *a* resting thereon. The products of combustion from the burner enter the device through the throat and being disseminated pass first through the orifices *i* and then impinge against the flanges *c*, either dispersing laterally in both directions and passing out between said flanges and the member *e* (if the downwardly opening grooves *x* are closed by the top *l* of the stove) or downwardly (if said grooves are open). In order that the heat may not be concentrated upon the central portion of member *a*, a baffle-plate *m* in the form of a convex disk is provided, the same having a post *n* whereby it is secured by a screw *o* to the member *a* in spaced relation thereto and over the throat.

In Figs. 6, 7 and 8, *p* is a plate having on its under side along its longitudinal edges the beads *q* and along its transverse edges the flanges *r*. A +-shaped rib *s* at the center of the plate and diagonal ribs *t* near both ends thereof depend from the plate, extending toward but not to its edges. Said plate forms the upper member, in this in-

stance, of the flat hollow body, the lower member u consisting of an oblong plate having its edges turned up to form a continuous flange v and also having the downwardly projecting throat portions w, each of which, when the two plates are assembled, is opposite one of the two sets of diagonal ribs t (see Fig. 6). The flange v is formed at the short sides of the plate u with extensions v', turned outwardly at right angles, and in the flanges v adjacent to said extensions are the orifices v^2. The plates p and u are assembled, the former upon the latter, so as to bring the extensions v' of the flanges of plate u in coincidence with the flanges r of plate p, in which arrangement the other two flanges v of plate u coincide with the beads q of plate p. Screws or the like x may be employed to secure the parts together, the screws being passed through the extension v' into plate p. As in the first construction, so in that now being described, the structure produced is hollow and generally flat; it is also light, strong and durable, the latter quality being partly due to the fact that the ribs s and t of plate p rest upon plate u and thus resist the parts warping out of shape. The portions w, it will be understood, form throats to receive the burners of a gas stove, the products of combustion from the burners entering through the throats, then passing through the orifices v^2 and then impinging against the flanges r, either dispersing laterally and then passing out between said flanges and plate u (if the grooves y are closed at the bottom by the top of the stove) or downwardly. A baffle plate z is in this instance secured by a screw z' to the plate p directly above each throat, the screw entering a post z^2 projecting from the baffle plate and thus separating the latter from plate p.

It will be understood that the improved device is especially useful for heating irons and other articles where it is desirable to effect the heating on a surface uniformly heated in all parts thereof. The heat is not only distributed uniformly throughout the upper member of the device but acts at its greatest efficiency thereon because, while the products of combustion circulate through the device, their progress is retarded, due partly to its flat formation and partly to the fact that their escape can only be accomplished in an indirect way.

Having thus fully described my invention, what I claim and desire to secure by Letters Patent is:

The combination of an upper generally flat and planiform member, the same being substantially rectangular in plan and having two of its opposite edge-portions turned downwardly substantially at right angles and being imperforate and the other two edge portions thereof lying in the same plane as the remainder of said member, a lower member having a downwardly projecting throat and having its under surface around said throat flat, said lower member being substantially rectangular in plan, having its four edge portions turned up at right angles and bearing against the under side of the upper member and two of its said edge-portions orificed, disposed between, spaced from, parallel with and close to the turned down edge-portions of the upper member, and a baffle plate carried by the upper member over said throat, said turned-down edge-portions of the upper member forming with the corresponding turned-up edge-portions of the lower member elongated downwardly open grooves open at their ends, substantially as described.

In testimony, that I claim the foregoing, I have hereunto set my hand this 15th day of February, 1910.

JOHN SCHOFIELD.

Witnesses:
JOHN W. STEWARD,
WM. D. BELL.