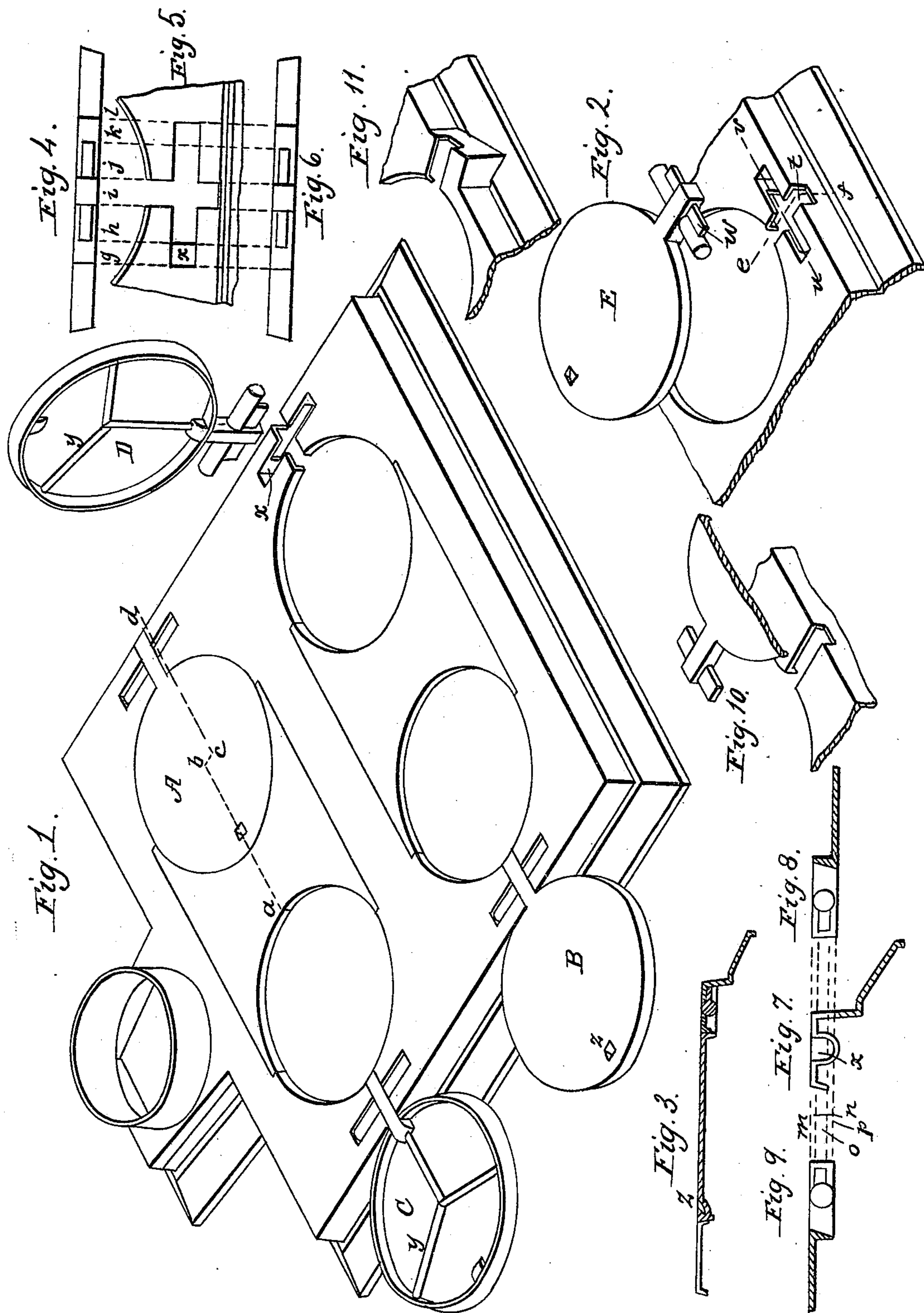


2 Sheets—Sheet 1.

No. 7,099.

Patented Feb. 19, 1850.



CLINTON, KNIGHT & KNIGHT.

2 Sheets—Sheet 2.

Cooking Stove.

No. 7,099.

Patented Feb. 19, 1850.

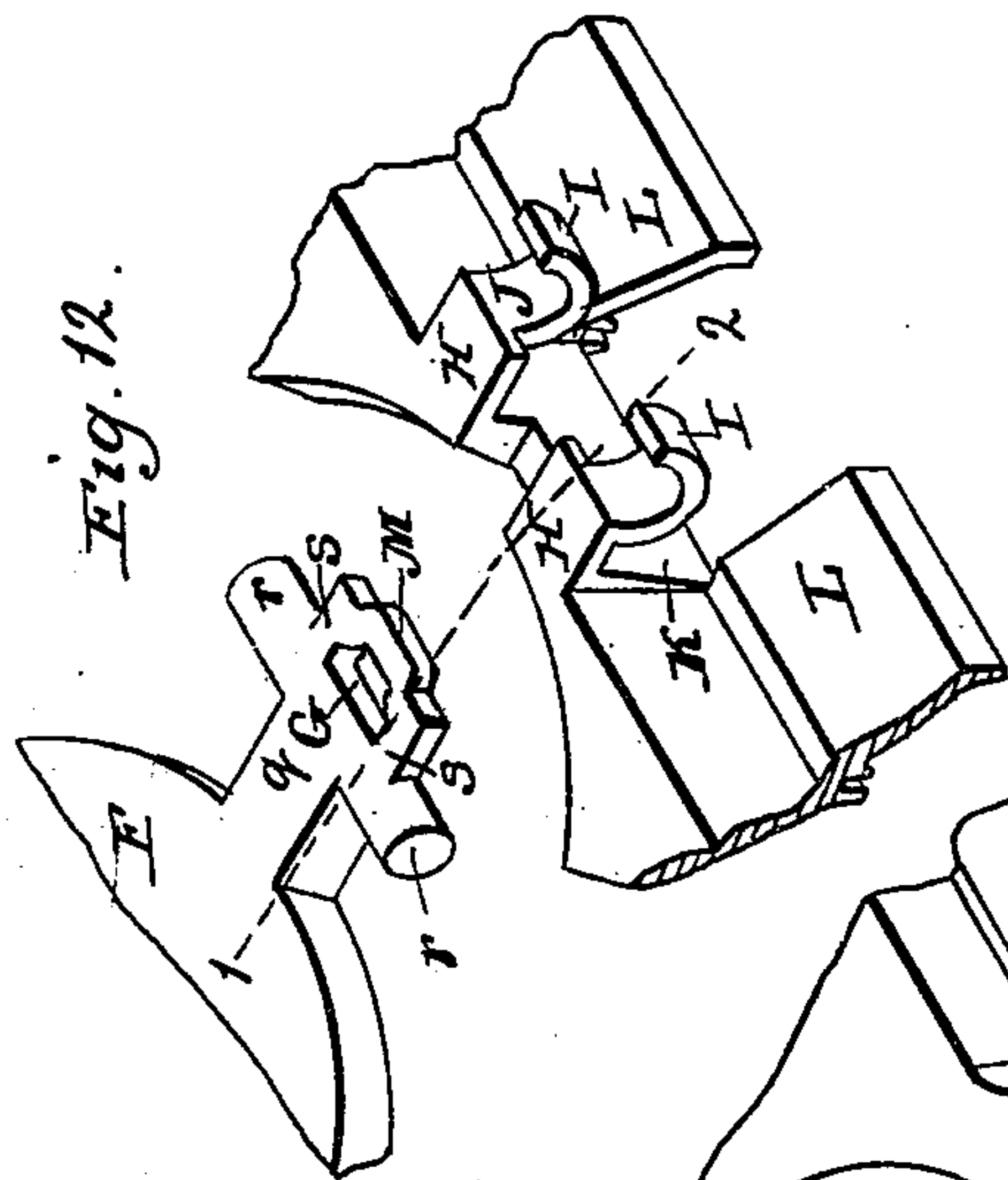


Fig. 13.

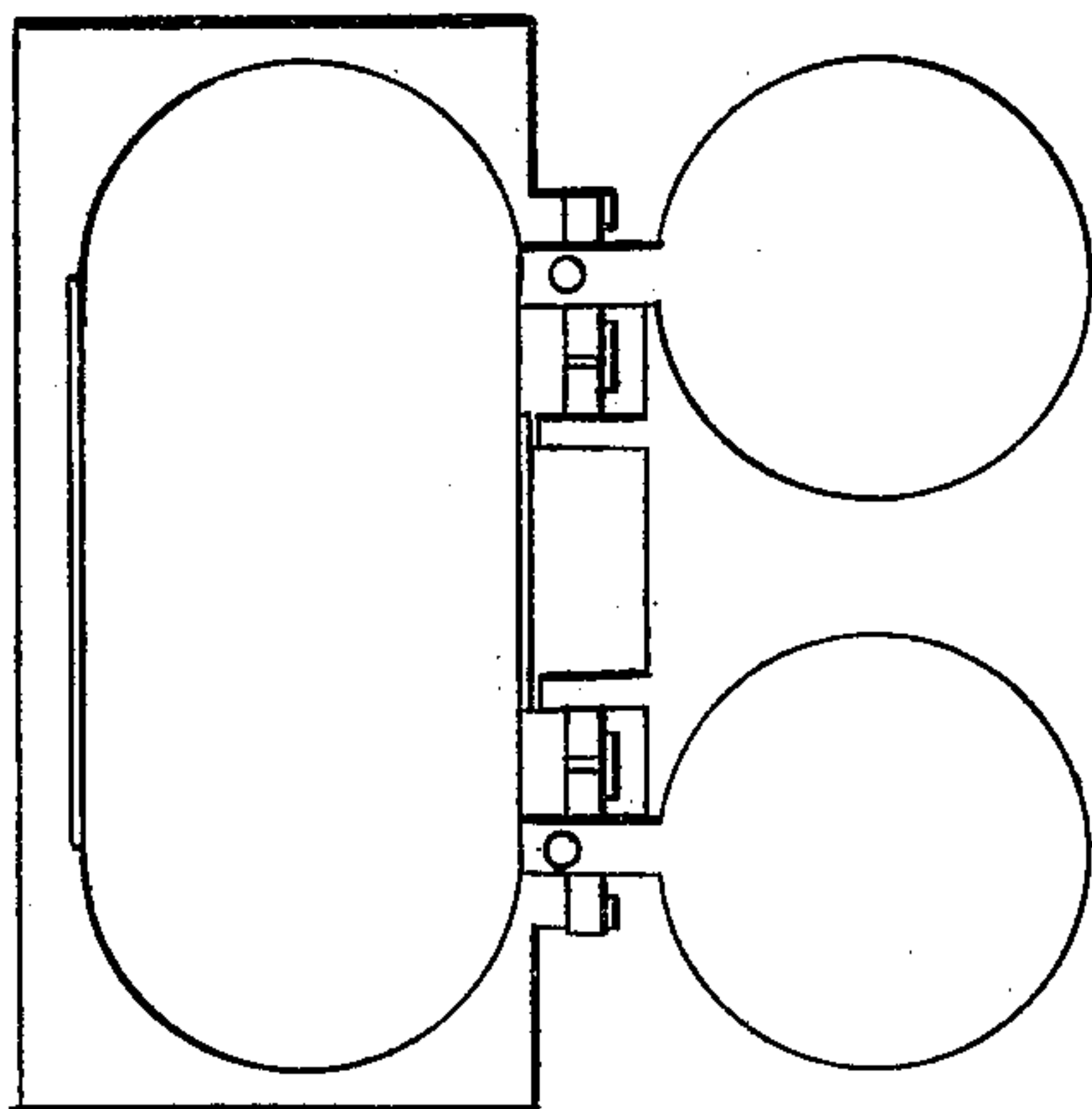


Fig. 14.

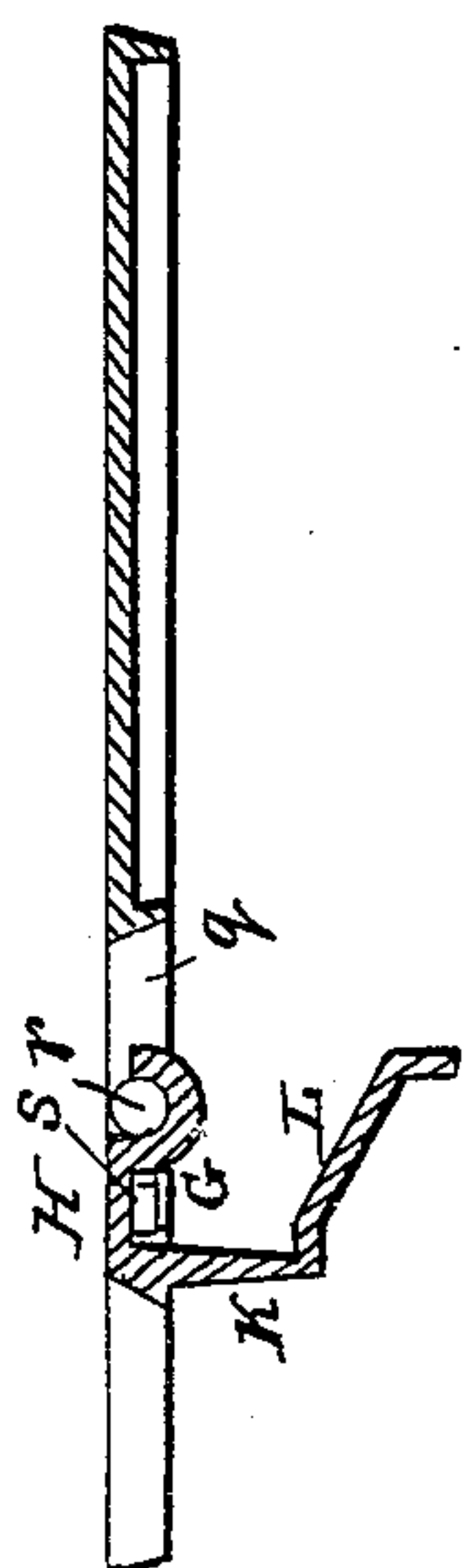
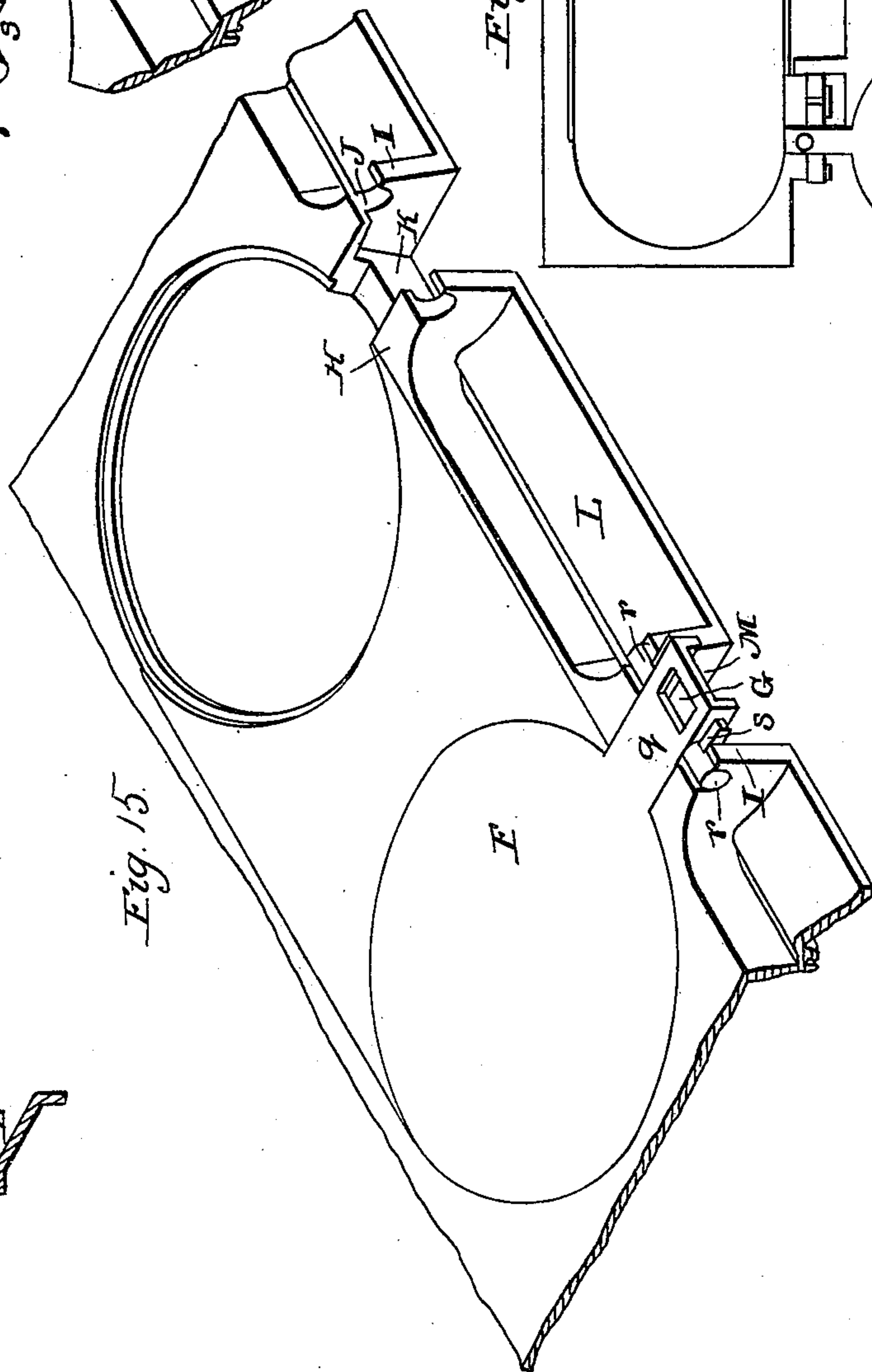


Fig. 15.



UNITED STATES PATENT OFFICE.

THOS. G. CLINTON, GEO. H. KNIGHT, AND EDWARD H. KNIGHT, OF CINCINNATI, OHIO.

LID FOR BOILER-HOLES OF COOKING-STOVES.

Specification of Letters Patent No. 7,099, dated February 19, 1850.

To all whom it may concern:

Be it known that we, THOS. G. CLINTON, GEO. H. KNIGHT, and ED. H. KNIGHT, of Cincinnati, Hamilton county, Ohio, have
5 invented new and useful Improvements in Lids and Their Connecting-Plates for Stoves and other Analogous Structures; and we do hereby declare the following to be a full, clear, and exact description of the
10 same, reference being had to the annexed drawings, making part of this specification and illustrating the invention.

The old fashioned lids and their connecting plates require to be permanently separated from the stove when the stove-top is
15 in use for cooking purposes. They necessarily soil whatever they are laid upon are often lost or broken and are alone serviceable to close the openings in the stove top.

20 One part of our invention consists in so connecting the lid or center plate as the case may be, by a symmetrical joint with the stove top as that the lid or center plate becomes as permanent a fixture to the stove
25 as its oven or fire door, and at the same time fits and fills flush with, or not exceeding the level of the top surface of the stove, the depressions and appendages going to form the joint, whether the lid or connecting
30 plate be thrown on or off the boiler openings. These lid and center plates thus add their area to the top surface of the stove, at a time when such surface is most needed, that is when the boiler openings are in use,
35 and thus furnish a heated surface onto which to place dishes or plates, or serve other analogous purposes. Another part of our invention consists in the appendage of a pivot or fulcrum upon which the lid can
40 be rotated and in so arranging the joint, that the lid when thrown open, can have either its external or flue surface presented uppermost, as may be desired.

45 Another part of our invention consists in constructing the lid, with the joint so arranged at the edge of the stove top that the lid can be manipulated at its coldest point, and by means which present no obstruction to the cooking apparatus; this arrangement
50 also enabling us to dispense with the usual depression for inserting the hook, the said depression being necessarily placed at the hottest part of the lid, and besides this being difficult to mold, and being also ob-
55 jectionable as a receptacle for ashes.

To effect the objects in view, we form the

joint so that the parts receive, fill and co-operate with each other, as shown at (A B C D Figure 1) at (F Fig. 15) and at (Fig. 12). Figs. 3 and 4 show in section the
60 modes of constructing the joint, the former section is in the lines (a b c d Fig. 1) and the latter section in the line (1, 2, Fig. 12). In either case the lid, or the center plate, is cast with an oblong neck (q) which has
65 journals (r) and lugs (s) on its sides. The top and bottom halves of this appendage to the lid are symmetrical, the journals being in diameter the thickness of the neck and the lugs equidistant from the said faces, and
70 on the sides of the journals farthest from the lid. The journals are about midway the length of the neck, and back of them the lugs jut out as at (w Fig. 2).

In the plan represented at (E Fig. 2) the
75 neck fits the notch in the stove top in the line (e, t, f,) and the journals fit the notch in the same at right angles to the last mentioned in the line (u, v). The lines (g, h, i, j, k, l,) connecting the Figs. (4, 5, and 6,) 80 illustrate this plan in a vertical point of view, and the lines (n, m, o, p) (Figs. 7 8 and 9) in a horizontal point of view. (x) are the bearings in the stove top for the journals (r) and seen in (Figs. 1 2 5 85 and 7) placed midway the notch (e t f Fig. 2) and form the ends of the notch (u, v,) in the same figure. The journal bearings are distant apart the length of the lugs including the breadth of the neck of the lid see
90 (Figs. 4, 5, and 6) lines (h and k). (y) are flanges on the flue face of the lid, to prevent the soiling of articles placed thereon. In this plan (z) is the usual depression for inserting the handle with which lids are
95 usually operated. It will thus be seen that the lid or connecting plate in this plan must be nearly in a vertical position before it can be taken out, or put in or have its faces reversed, and also it will be seen that
100 the top and bottom halves of the neck of the lid, and its appendages, are counterparts of each other; and as the journal bearings are midway the notch in the stove top, and the same bearing surface for the lugs
105 is provided on each side of the journal bearings it follows that thrown on or off the boiler openings or with its flue or top face uppermost, the parts of the lid and the stove top, are equally adapted to fit one another. 110

Figs. 10 and 11 show how a stove top and lid as already made and cast can be

altered so as to operate on this plan, to wit: The lid can be made to answer the end desired by the appendage of a neck and lugs as shown; a simple notch from the boiler opening to the edge to be made in the stove top.

Figs. 12, 13, 14, and 15, illustrate the joint constructed on the same principles, but with better aptitude to facility in molding and affording also a means of manipulating the lid by the hole (G) at the coldest part of the lid instead of the depression (z) usually placed at the hottest part. This is effected by placing the joint beyond the edge of the stove top. Lugs H, at the distance apart of the breadth of the neck of the lid (and which lugs may as in Fig. 15 be joined to the cornice) are cast on the dip or edge of the top plate and in these lugs the journal bearings are placed, at a distance apart sufficient to allow the lugs (s) to lie up between the bearings and the edge of the stove top. The front part I of the bearings for the journals, is as much narrower than the lugs (H) as the lugs (s) extend beyond the breadth of the neck (q) and retain this narrowness as seen at (J).

The edge (K) of the stove top under the lugs (H) is beveled and the same portion of the cornice (L) is cut away, in order to facilitate the molding of the parts.

The molding can be again connected by ornamental pendants, the notch in the cornice being dovetailed for their retention.

One advantage is that the depression z with its attendant difficulty of molding and dirt collecting tendencies are dispensed with, while the handle employed (unlike those heretofore cast solid to stove lids) offers no projecting obstacle to interfere with the cooking operations.

Fig. 13 exhibits the lid and connecting plate all thrown off the boiler opening and with their top surfaces uppermost.

Having thus fully described the nature,

construction and operation of our invention, what we claim therein as new and desire to secure by Letters Patent is:

1. So arranging the lid (or center plate) in connection with the top plate of the stove, as that the lid (or center plate) when withdrawn from the opening, may be made to add its area to, and at the same time lie flush with or below the level of the top of the stove; this being effected by a neck proceeding from the lid (or center plate) in the direction of its plane, said neck (whether the lid or center plate be closed or folded back) fitting and filling a notch in the stove top, and having lugs projecting from its sides, which lugs bearing upward against the top plate, or against shoulders projecting therefrom sustain the lid when folded back.

2. The arrangement substantially as described, of journals on the neck at or about midway of its length, forming a fulcrum upon which the lid can be folded back, either with its top face or with its flue face uppermost the lugs in this case being behind the journals, and midway of the thickness of the neck.

3. Constructing the lid (or center plate) with a handle projecting therefrom in the direction of its plane, and at its coldest point, so as to afford a means of operating the lid by hand, with comparative impunity and facility, and so as to avoid on the one hand, any impediment to the shifting of the cooking utensils, and on the other hand the usual cavity difficult to mold, liable to collect dirt and placed unavoidably at the hottest part of the lid.

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