

(No Model.)

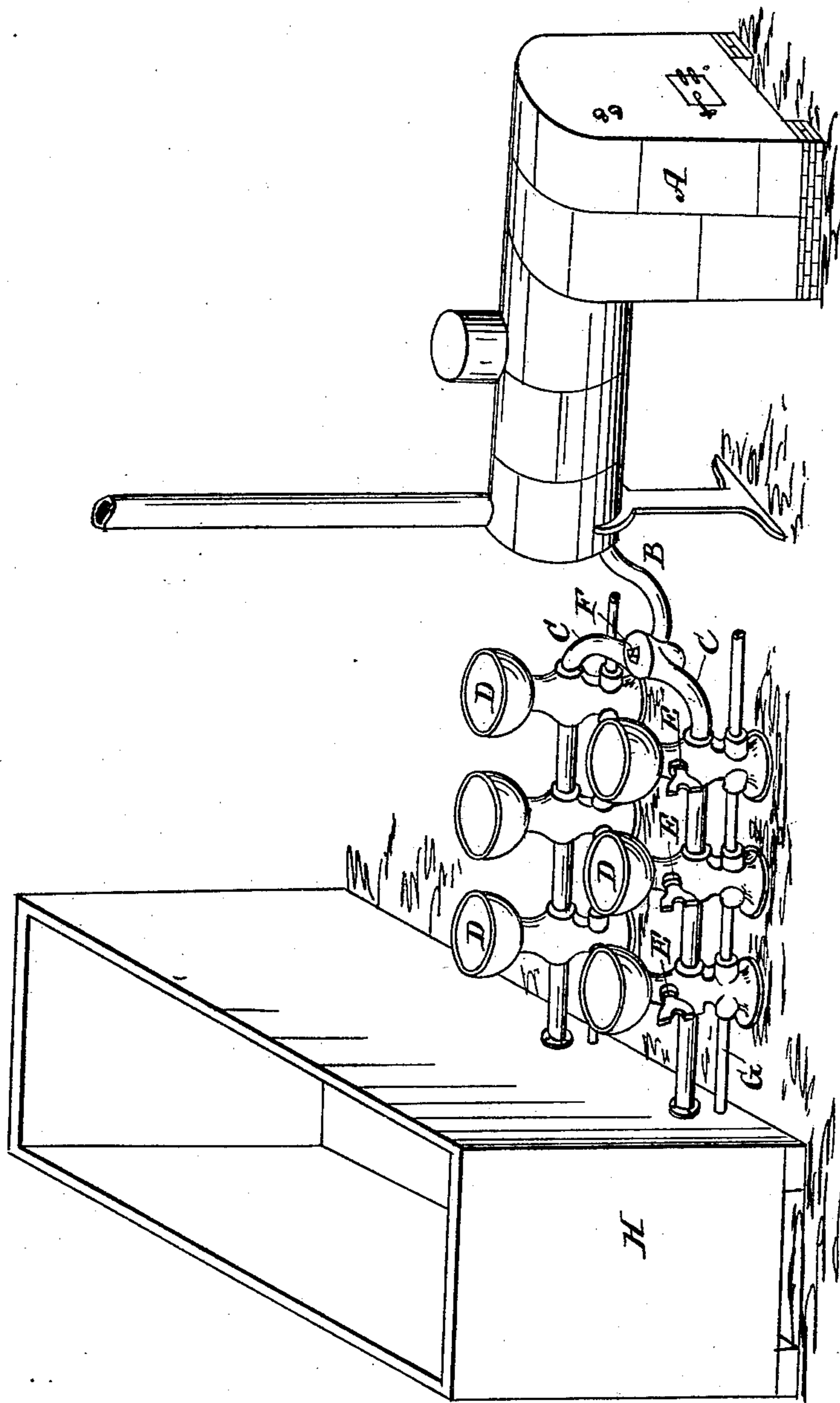
2 Sheets—Sheet 1.

S. D. GILSON.
SALT BOILING APPARATUS.

No. 246,002.

Patented Aug. 23, 1881.

FIG. 1.



Witnesses:

C. M. Perry
D. B. Lowe

Inventor:

Sam'l D. Gilson
by Suggett & Nottingham

Attys.

(No Model.)

2 Sheets—Sheet 2.

S. D. GILSON.

SALT BOILING APPARATUS.

No. 246,002.

Patented Aug. 23, 1881.

FIG. 2.

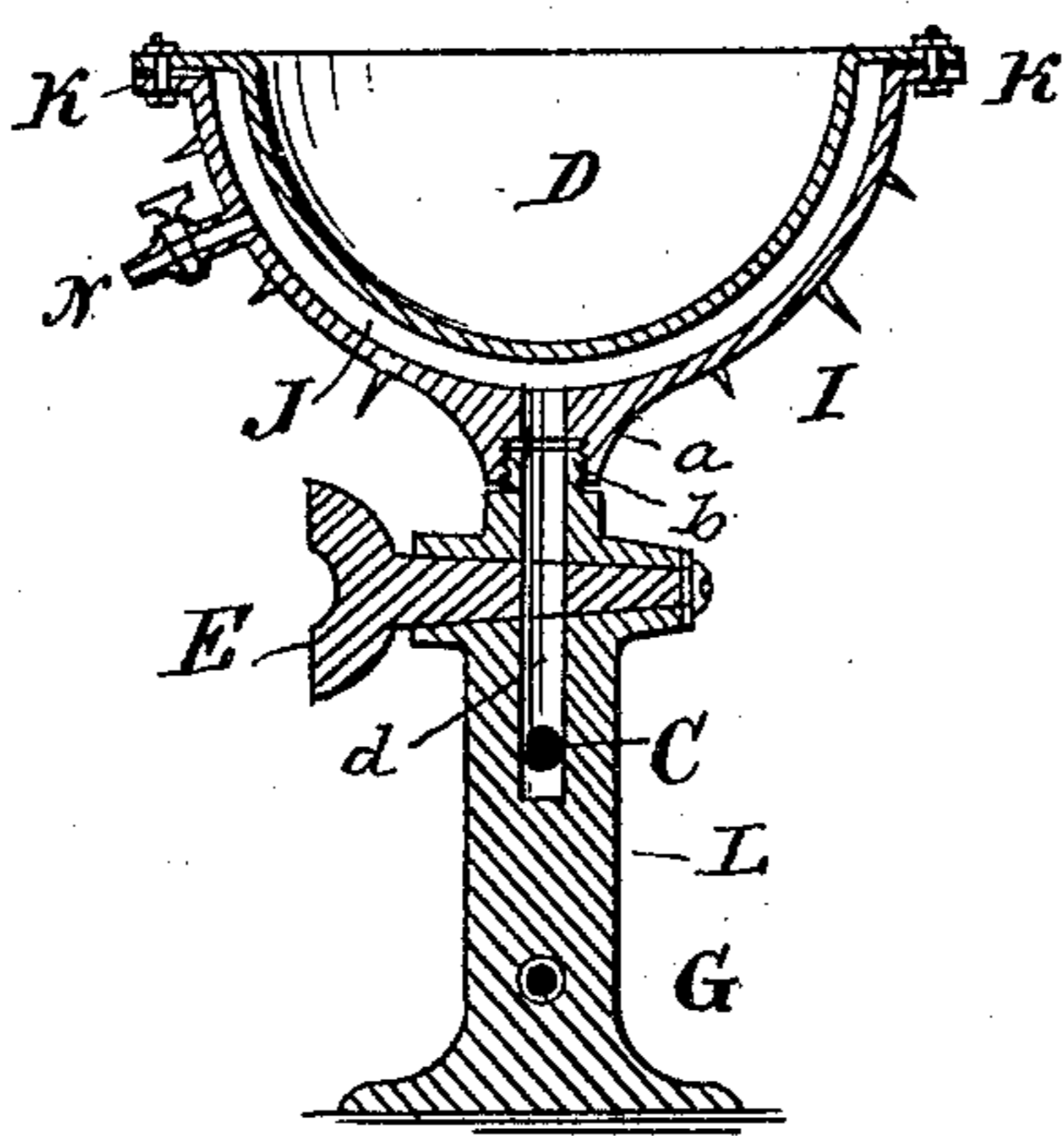


FIG. 3.

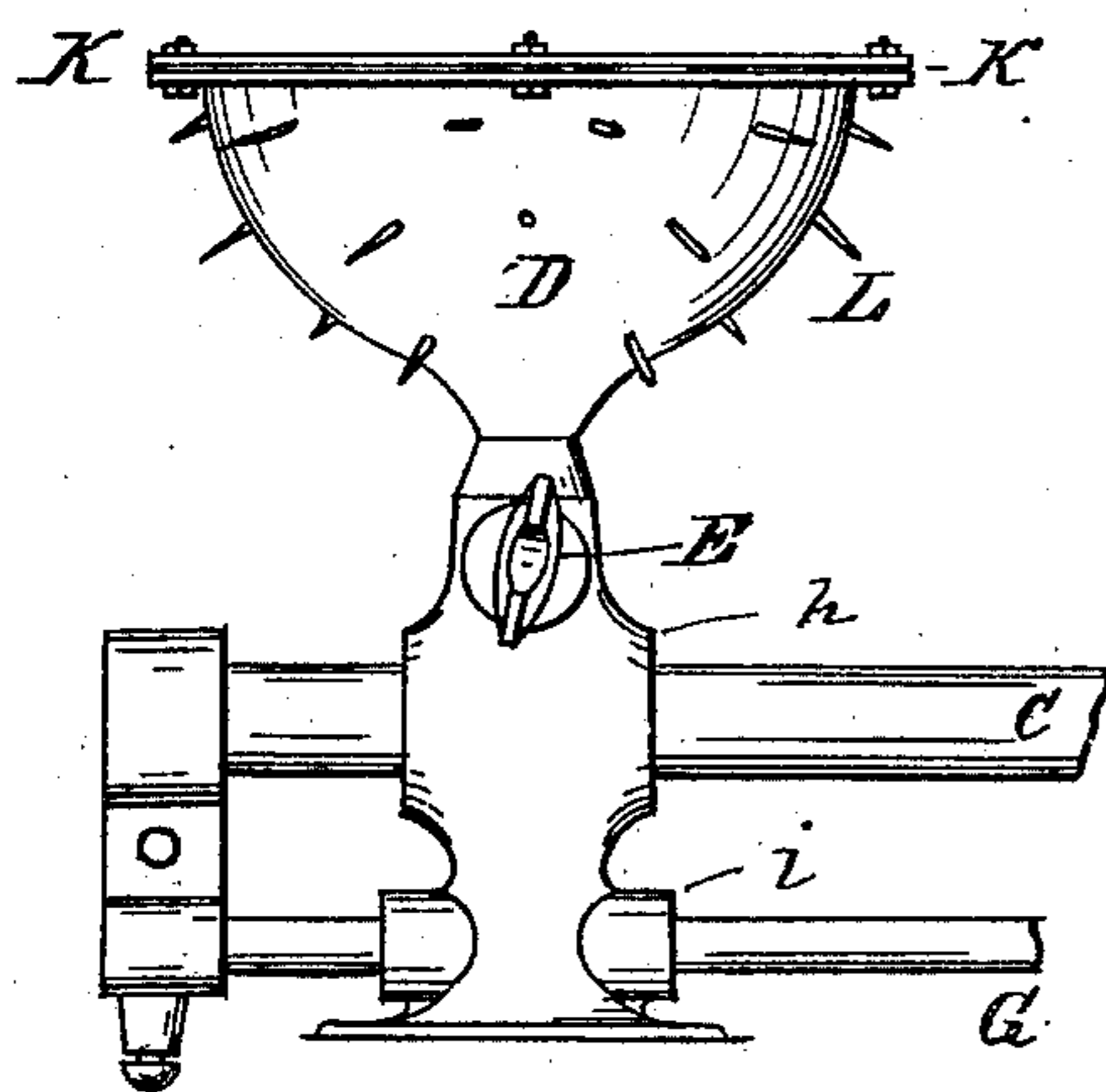
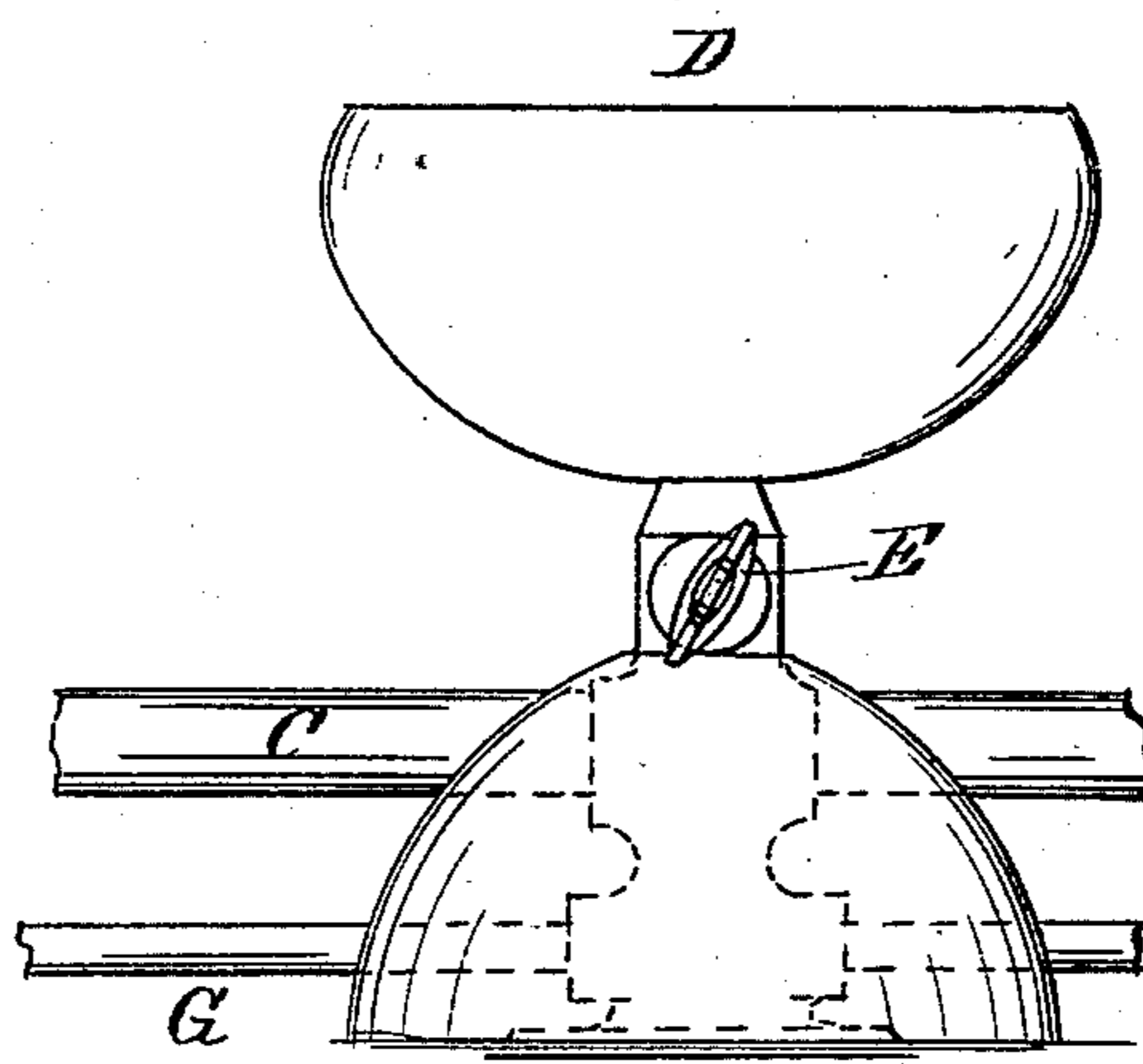


FIG. 4.



Witnesses:

C. M. Perry
D. P. Cowl

Inventor:

Sam'l D. Gilson
By Suggett & Nottingham

Attys

UNITED STATES PATENT OFFICE.

SAMUEL D. GILSON, OF SYRACUSE, NEW YORK.

SALT-BOILING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 246,002, dated August 23, 1881.

Application filed July 8, 1880. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL D. GILSON, of the city of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Salt-Boiling Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 the letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 represents a general view of the apparatus. Fig. 2 represents a section of one of the kettles. Fig. 3 represents one of the kettles with the spurs or projections for retaining non-conducting substances, and Fig. 4 one of the kettles coated with non-conducting substance.

The same letters on the different figures indicate like parts.

My invention relates to certain improvements in steam-kettles for evaporating salt and other solutions; and it has for its object to provide an improved kettle having suitable connections, and so constructed that any number may be connected in a series with each other and with a steam-generator and salt-water heater, whereby the solution may be subjected to the action of regulated steam heat, the condensed water utilized for heating the solution to be evaporated previous to being introduced to the kettles, and finally returned to the boiler, and the heat necessary for the evaporation of the solution thus greatly economized.

It further consists in providing the exterior of the jackets with spurs or projections for the retention of a non-conducting material for the purpose of preventing radiation.

These objects I accomplish by the devices and mechanism illustrated in the before-mentioned drawings, in which—

The letter A indicates a steam boiler or generator of any suitable description, and B a pipe leading therefrom to the branching pipes C, a cock, F, being provided at the junction, by means of which steam may be cut off from or supplied to either of said pipes C.

The letter D indicates the kettles, constructed, preferably, of cast metal, and each provided

with an external steam-jacket, I, as illustrated in Fig. 2. The said jacket at the center of its bottom is provided with an internally-screw-threaded boss, *a*, for the reception of the externally-threaded upper end, *b*, of a supporting pedestal or standard, L, which is provided with a passage, *d*, leading from the connecting-pipe C to the steam-space between the kettle and jacket. The pedestal or standard is provided with a suitable base, *e*, upon which it rests, and with hollow bosses *h i*, Figs. 1, 3, and 4, for the reception of connecting-pipes C and G.

The letter H indicates a tank for containing the saline or other solution to be supplied to the kettles, which may be done by dipping or in other convenient manner.

The pipes C connect with an ordinary steam coil or chamber (which it is not deemed necessary to show) in tank H, and from said coil or chamber extend the pipes G, connecting with any suitable devices for returning the water of condensation to the boiler.

It will be seen that, as thus constructed, any number of kettles may be conveniently connected in a series or "battery" with the greatest convenience, as indicated in Fig. 1, the whole being securely supported and braced together by the connecting-pipes C and G, which supply the steam to the kettles and return the water of condensation to the boiler.

The standards or pedestals are provided with cocks E, by which the steam may be supplied to each in regulated quantities or cut off entirely, to permit any one or more to be cleaned without cutting off the steam from the others.

The exterior of the jackets are formed with projections J, for the retention of a non-conducting material, which may be placed upon the kettle in the form of mortar, when the kettle will present the outlined form shown in Fig. 4. This construction serves efficiently to retain the heat, and is of importance in the practice of the art.

The operation of my invention will be evident from the above without further description. Therefore,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a jacketed kettle, of a supporting standard or pedestal, communicating with the interior of the jacket, and pro-

vided with sockets for the connecting-pipes leading to and from the boiler, substantially as specified.

2. In combination with the kettles and their
5 standards, having suitable steam-regulating cocks, the steam connecting-pipes leading from the boiler, for supplying steam to the jackets, substantially as described.

3. In combination with the jacketed kettles,
10 their supporting standards, and regulating-cocks, the steam connecting-pipes and water connecting-pipe communicating with a coil or chamber located in a heater, and with the steam boiler or generator, substantially as specified.

4. In a jacketed kettle, the jacket provided
15 with outwardly-extending spurs adapted to receive and hold a non-conducting material, substantially as set forth.

In testimony that I claim the foregoing as
my own I affix my signature in the presence of
20 two witnesses.

SAML. DERBY GILSON.

Witnesses:

ANDREW W. WILKIN,
ARTHUR BEEBE.