

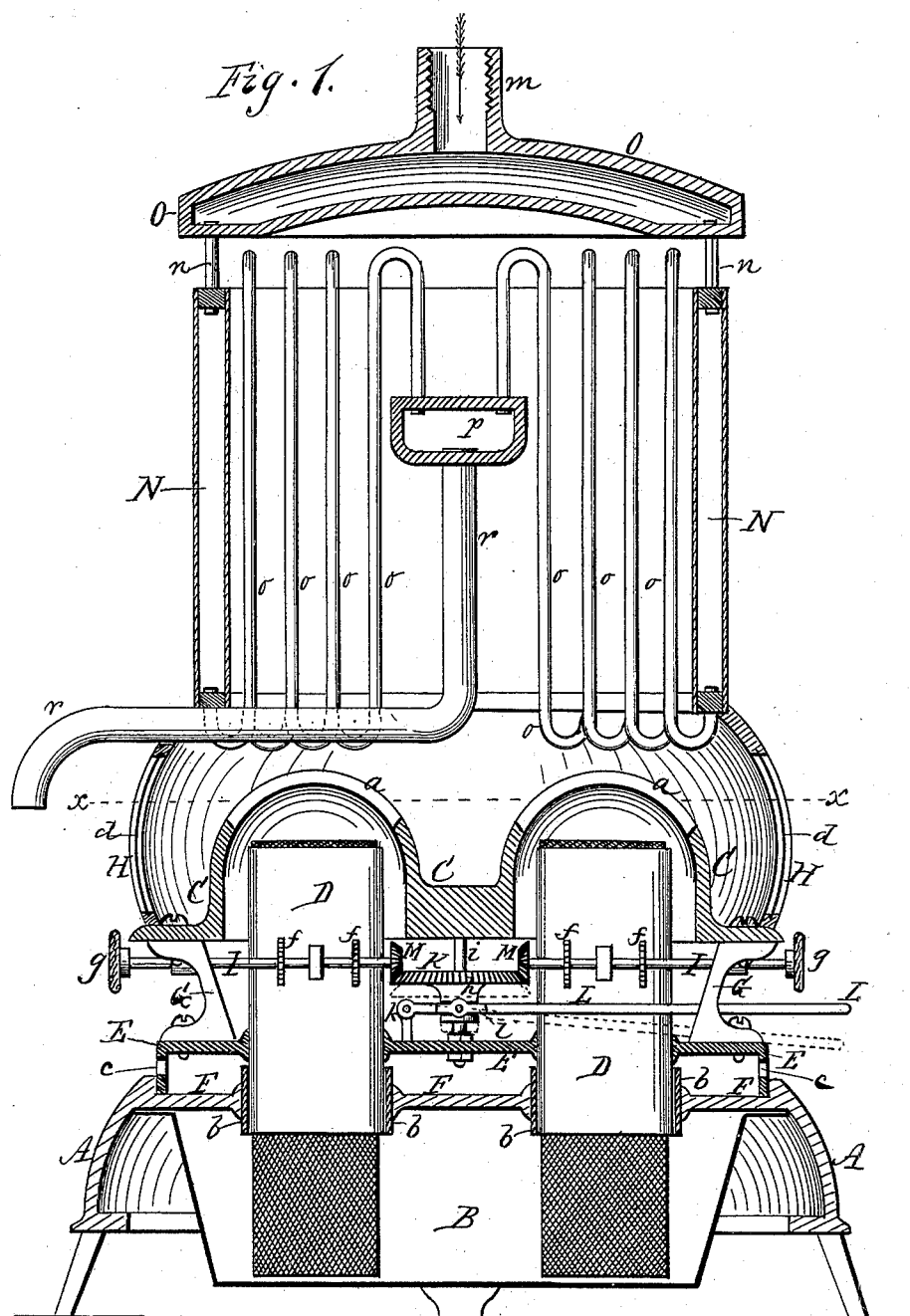
(No Model.)

2 Sheets—Sheet 1.

J. BOMA.
HEATER.

No. 417,806.

Patented Dec. 24, 1889.



Attest.

P. A. Costello
Chas. H. Sidener.

Inventor:

Inventor.
John Borna,
per R. F. Osgrid.
Atty.

(No Model.)

2 Sheets—Sheet 2.

J. BOMA.
HEATER.

No. 417,806.

Patented Dec. 24, 1889.

Fig. 2.

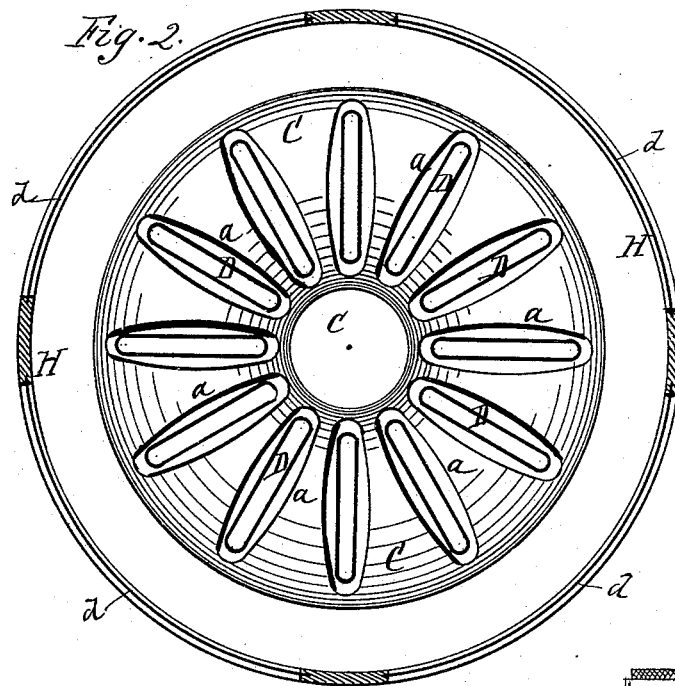


Fig. 4.

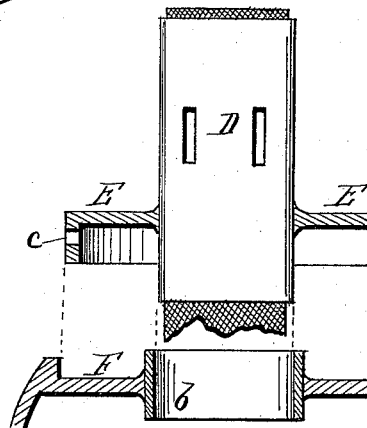
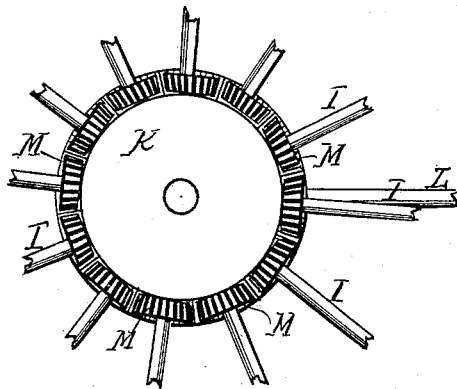


Fig. 3.



Attest.
V. A. Costich
John H. Hopkins.

Inventor:
John Boma,
per R. F. Osgood,
Atty

UNITED STATES PATENT OFFICE.

JOHN BOMA, OF ROCHESTER, NEW YORK.

HEATER.

SPECIFICATION forming part of Letters Patent No. 417,806, dated December 24, 1889.

Application filed October 10, 1887. Serial No. 251,887. (No model.)

To all whom it may concern:

Be it known that I, JOHN BOMA, of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Burners, of which the following is a specification.

My improvement relates to burners for cooking and heating purposes; and the invention consists in the construction and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 is a central vertical section of the apparatus. Fig. 2 is a horizontal section in line *xx* of Fig. 1. Fig. 3 is a diagram showing a plan view of the gearing. Fig. 4 is a detail view showing one of the wick-tubes and the socket in which it rests in section.

A indicates the base.

B is the oil pot or fount located therein.

C is the cone-plate, consisting of a hollow ring having as many slots *aa*, Fig. 2, as there are burners in the apparatus. These slots are located radially and in a circle, as shown.

D D are the wick-tubes, located in the hollow of the cone-plate under the slots. These wick-tubes are of ordinary form, but are attached to a flanged plate E, that rests in a seat on top of the base A, and the lower ends of the wick-tubes rest loosely in sockets *bb* of another plate F, which is located on the base and forms the top of the reservoir. By this means the wick-tubes can be fitted accurately in place to bring them in line with the slots and be held in proper position, and can be easily inserted and removed. The flanged plate E has holes *c c*, Fig. 1, through which cold air passes into the space between the two plates E F to keep the oil-fount cool.

G G are legs on top of plate E, supporting the cone-plate C and inclosing-drum H.

I I are shafts having spur-wheels *ff* for raising the wicks. There are as many of these shafts and spur-wheels as there are wick-tubes, and they are placed at the backs of the wick-tubes, as usual, and the shafts extend outward and have thumb-pieces *g g*, by which they are operated.

K is a bevel-gear resting centrally between the wick-tubes and below the cone-plate C, the same being provided with a hub *h*, which

slides freely up and down on a fixed guide-rod *i*, and is provided with a circumferential groove.

L is a lever pivoted at its inner end at *k* and provided with a ring *l*, which passes around the hub of the bevel-gear, said ring having a pin or pins that rest in the groove, the arrangement being similar to a clutch for shifting gearing. By throwing the outer end of the lever up or down the bevel-gear will be correspondingly raised or lowered, as indicated by the dotted lines, Fig. 1.

M M M are a set of bevel-pinions fixed on the ends of the spur-wheel shafts I I and engaging with the central bevel-gear K. When the bevel-gear is raised, it will be seen that all the spur-wheel shafts will be turned by turning one of the spur-wheel shafts by hand. The wicks in that case will all be raised or lowered simultaneously and to an equal degree. When the bevel-gear is lowered, it is disengaged from all of the pinions, and each spur-wheel shaft can then be operated independently of the others, so that if it is desired to use only a portion of the burners the wicks of those burners can be adjusted without affecting the others.

I am aware that in lamps having multiple wicks the spur-wheels have been engaged by gearing, so as to turn simultaneously by operating one; but in this invention it is desired to operate the spur-wheels of a large number of burners located in a circuit, giving motion to all or be disengaged, so that each can be operated independently, which requires a special construction, as above described.

The drawings show the burner applied beneath a water-heater, the same consisting of an annular case N, which receives the water from a hollow dome O through pipes *nn* and discharges the same into heating-pipes *oo*, located in the fire-chamber, said pipes connecting with an interior chamber *p*, and the heated water being drawn from said chamber through a discharge-pipe *r*.

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

The combination of a series of wick-tubes located radially and arranged in a circuit, a hollow cone-plate provided with slots resting

over the wick-tubes, a series of spur-wheel shafts connected with the wick-tubes and provided with bevel-pinions at their inner ends, a center bevel gear-wheel engaging with the
5 pinions and resting on a guide-rod, and a lever connected with the bevel-gear for throwing the same into and out of engagement with the pinions, as shown and described, and for the purpose specified.

In witness whereof I have hereunto signed to my name in the presence of two subscribing witnesses.

JOHN BOMA.

Witnesses:

R. F. OSGOOD,
WM. J. MCPHERSON.