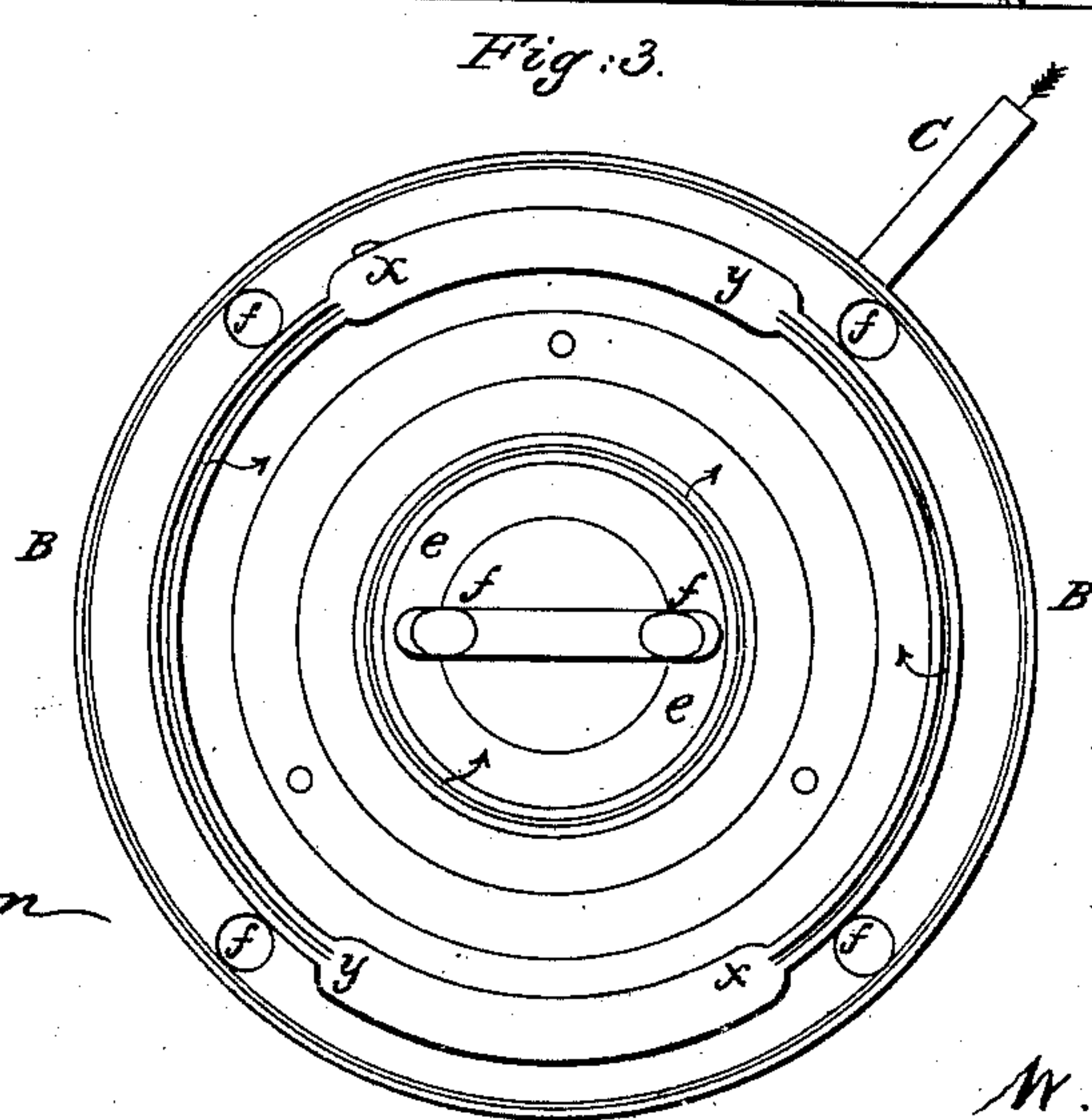
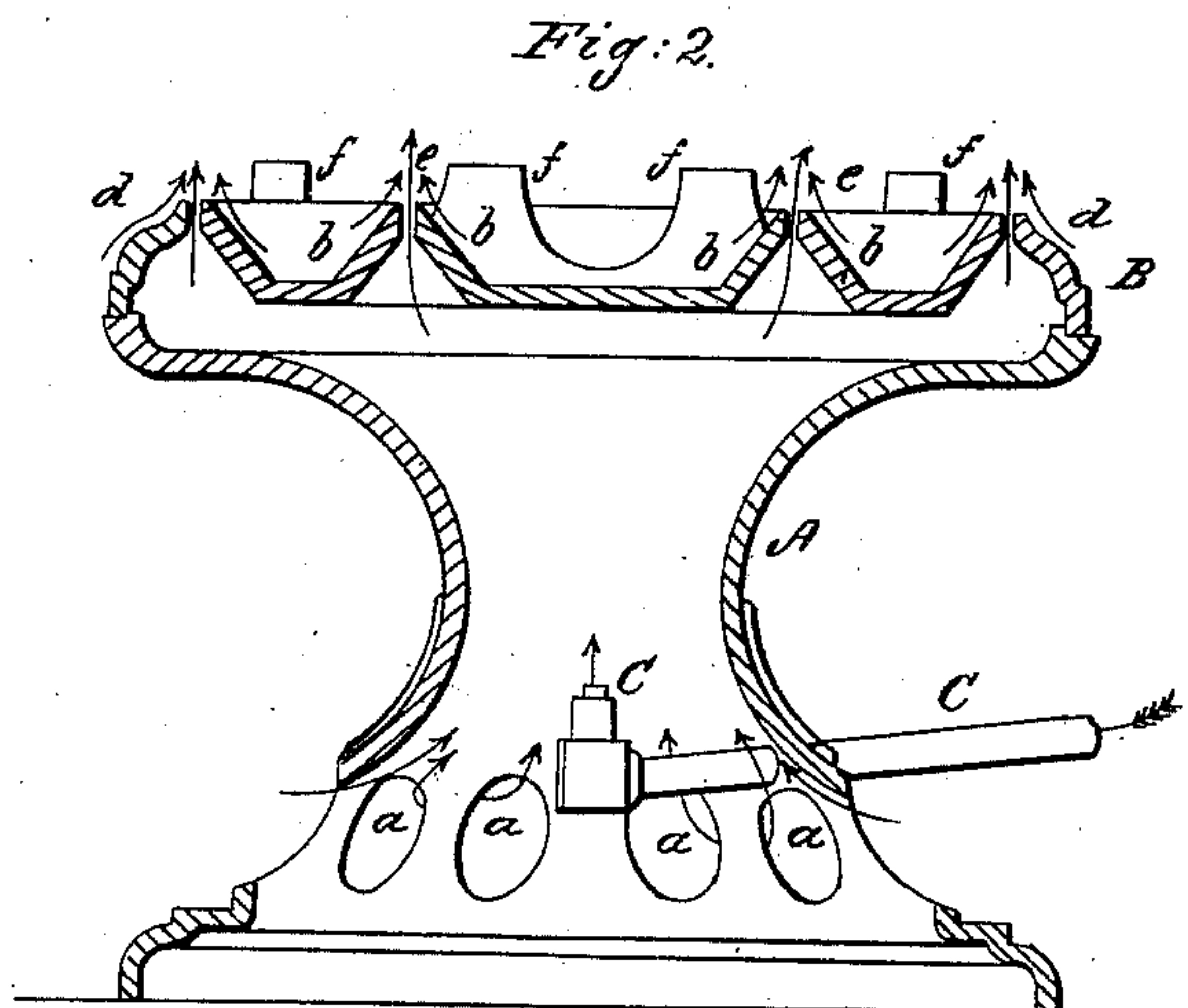
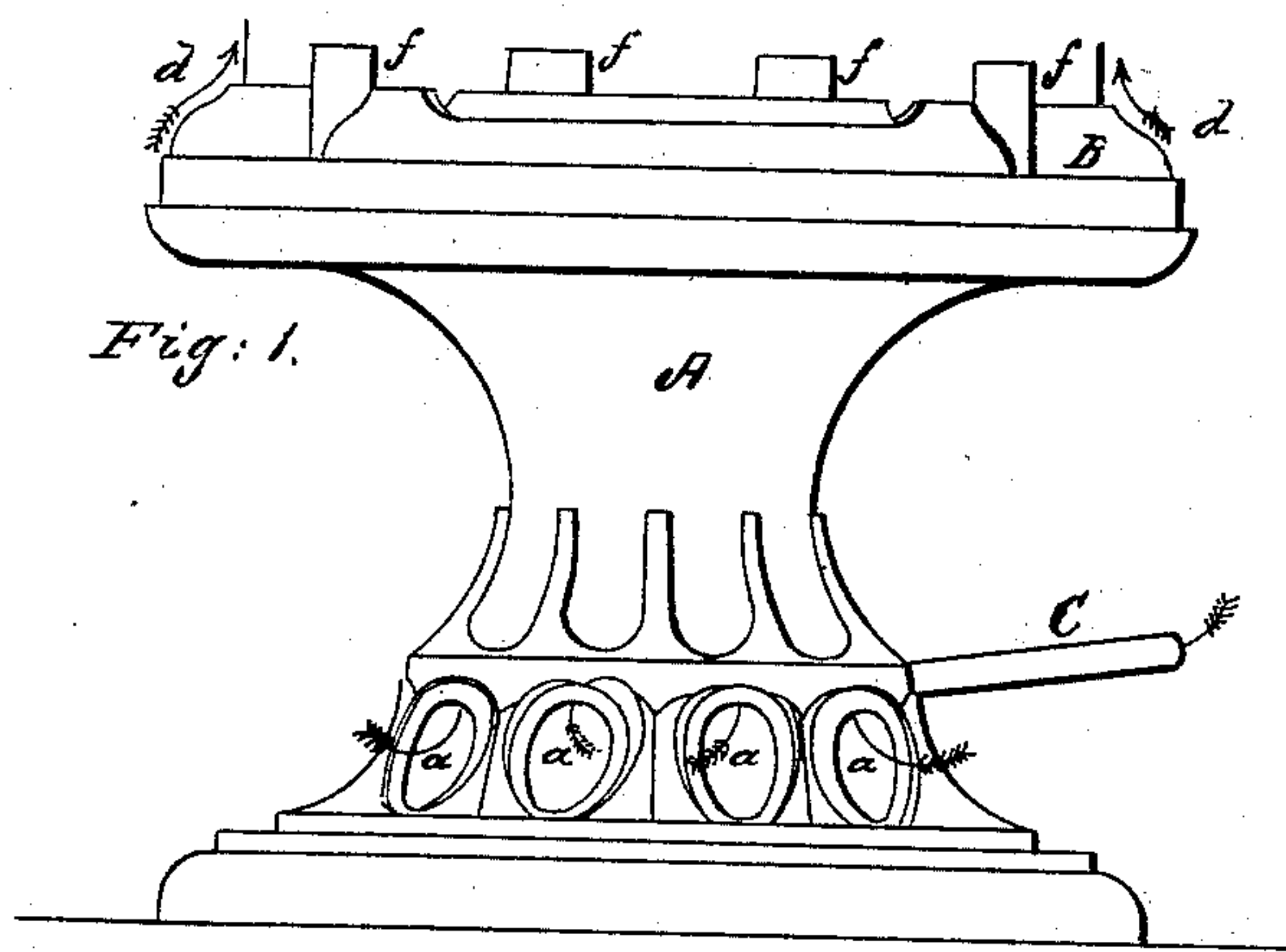


W. J. CANTELO.

Gas Stove.

No. 28,035.

Patented April 24, 1860.



Witnesses:

Henry Howson  
Horace See

Inventor:

W. J. Cantelo

# UNITED STATES PATENT OFFICE.

W. I. CANTELO, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO STUART & PETERSON,  
OF SAME PLACE.

## STOVE.

Specification of Letters Patent No. 28,035, dated April 24, 1860.

*To all whom it may concern:*

Be it known that I, W. I. CANTELO, of the city of Philadelphia, State of Pennsylvania, have invented a new, useful, and Improved  
5 Gas-Burning Stove or Heater; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked  
10 thereon.

My invention relates to that class of stoves or heaters in which ordinary coal or other gas, is used as a fuel, and my invention consists of a box or chamber to which  
15 both air and gas are freely admitted in combination with a cap, the latter having curved or inclined ridges provided with slits in the manner described hereafter, so that the external air may have a free access to the lower  
20 part of the flame produced by the ignited gas as the latter passes through the slits, thereby increasing the heat of the flame and rendering the stove or heater applicable to culinary and other purposes.

25 In order to enable others to make and use my invention I will now proceed to describe its construction and operation.

On reference to the accompanying drawing which forms a part of this specification,  
30 Figure 1, is an exterior view of my improved gas burning stove or heater. Fig. 2, a vertical section of the same, and Fig. 3, a ground plan.

Similar letters refer to similar parts  
35 throughout the several views.

My improved gas burning stove consists of a hollow stand A, and a cap B, attached to the top of the said stand by any suitable appliances, the whole forming a chamber  
40 to which the exterior air has free access through any convenient number of openings *a a*, and to which the gas is admitted through a pipe C, terminating in a tip *c*, which is situated centrally, or thereabout, with the  
45 chamber formed by the stand and its cap. The latter has an annular projection *b* having inclined sides, and outside this annular projection is another similar projection *d*, the annular continuity of which may or may  
50 not be interrupted at two portions of its cir-

cumference, that is, between the points *x* and *y* Fig. 3, according to the use to which my improved stove or heater may be applied.

The annular projection *l* has at its summit a narrow annular slit *e* communicating  
55 with the chamber formed by the stand A and its cap B; and the annular, or partially annular projections *d* have similar narrow slits communicating with the same chamber.

At different points on the cap B are pro-  
60 jections *f f*, for receiving the object to be heated, the locality and number of these projections depending upon the form and size of the object, their upper surfaces however must be above the surface of the projections  
65 in which are the above mentioned slits.

The gas and air being simultaneously admitted into the chamber will escape through the slits in the projections *b* and *d*, at which  
70 point the gas, which has become thoroughly and intimately intermixed with the air, is ignited.

It will be observed that the flame is bounded on each side by two ridges forming the sides of the projections in which the  
75 slits for the escape of the gas are formed. These ridges afford an opportunity for the external air to pass in the direction of the arrows, Fig. 2, toward the flame, supplying the same with that amount of oxygen which  
80 causes it to assume a clear blue color, a certain indication of an intense heat, which could not be attained by allowing the gas to pass through slits formed in a level cap  
85 without the above described ridges.

It will be readily seen that the same result may be obtained by forming the projections of the cap with curved instead of inclined  
90 sides so that the air may be directed to the flame in the manner described.

It will also be seen that my improved gas burning stove or heater may be made of a variety of forms differing from that illustrated, that the slotted projections may be  
95 straight instead of annular, that they may be so situated that the flame shall be horizontal instead of vertical, and that the number and extent of the slotted projections may be regulated by the use to which my improved  
100 gas burning stove or heater may be applied,



and to the extent of the surface to which it has to communicate heat.

Without confining myself therefore to the precise form and arrangement of parts  
5 herein described,

I claim as my invention and desire to secure by Letters Patent.

The combination of the chamber and cap the latter having inclined or curved ridges

provided with slits in the manner and for 10 the purpose herein specified.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

W. I. CANTELO.

Witnesses:

HENRY HOWSON,  
CHARLES D. FREEMAN.