

A. T. UPHAM.

Foot Stove.

No. 41,876.

Patented March 8, 1864.

Fig. 2

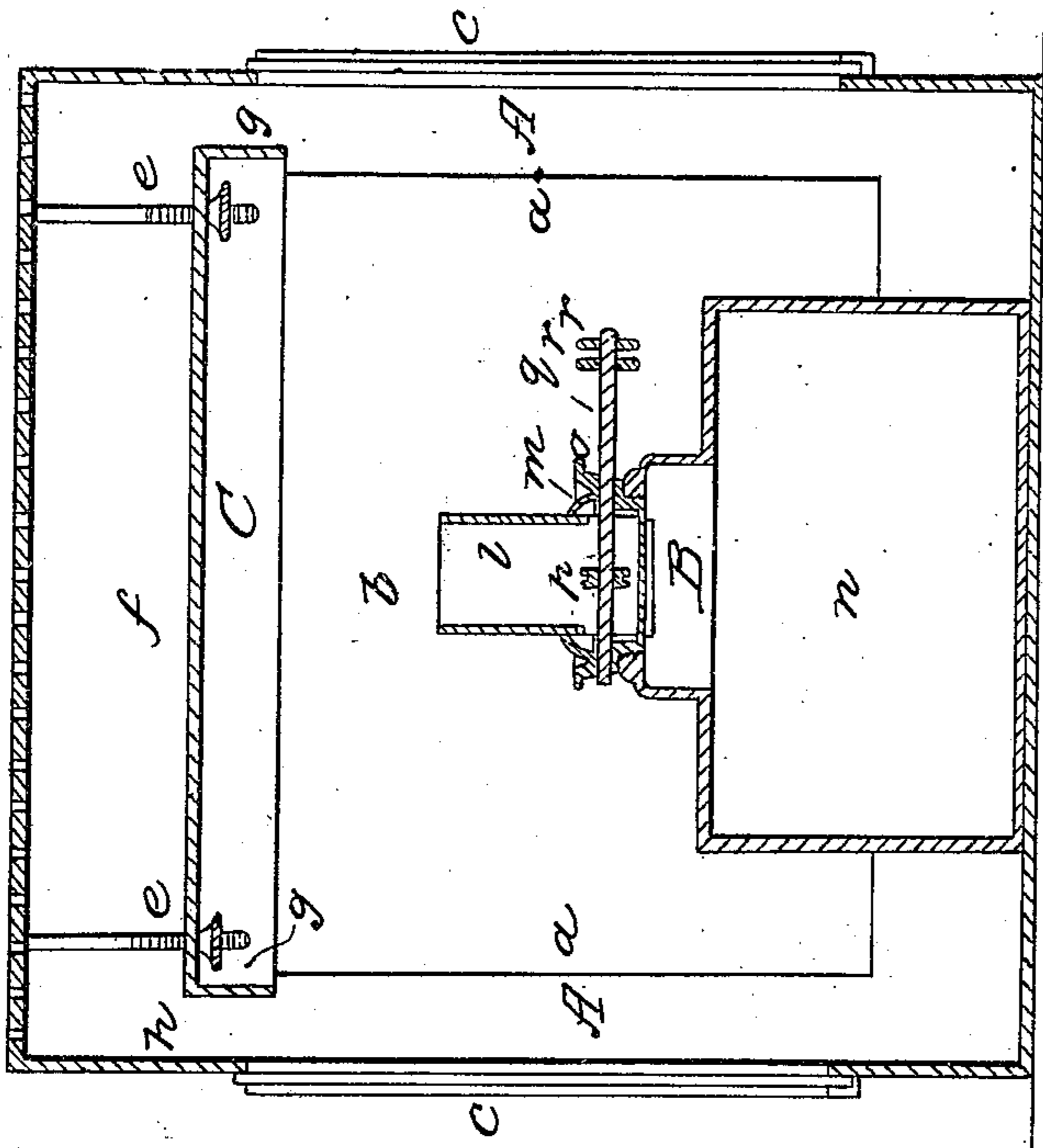


Fig. 1

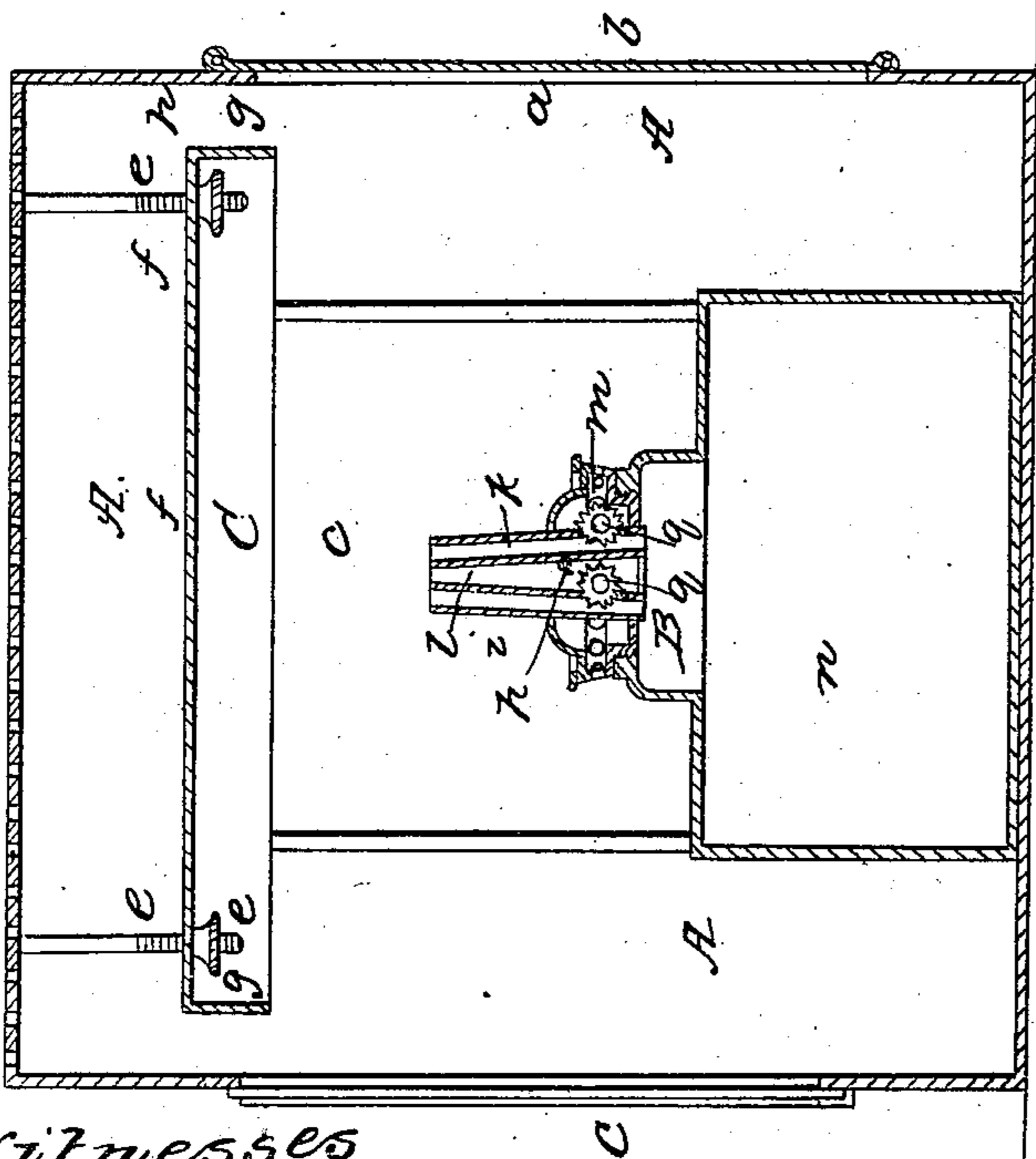
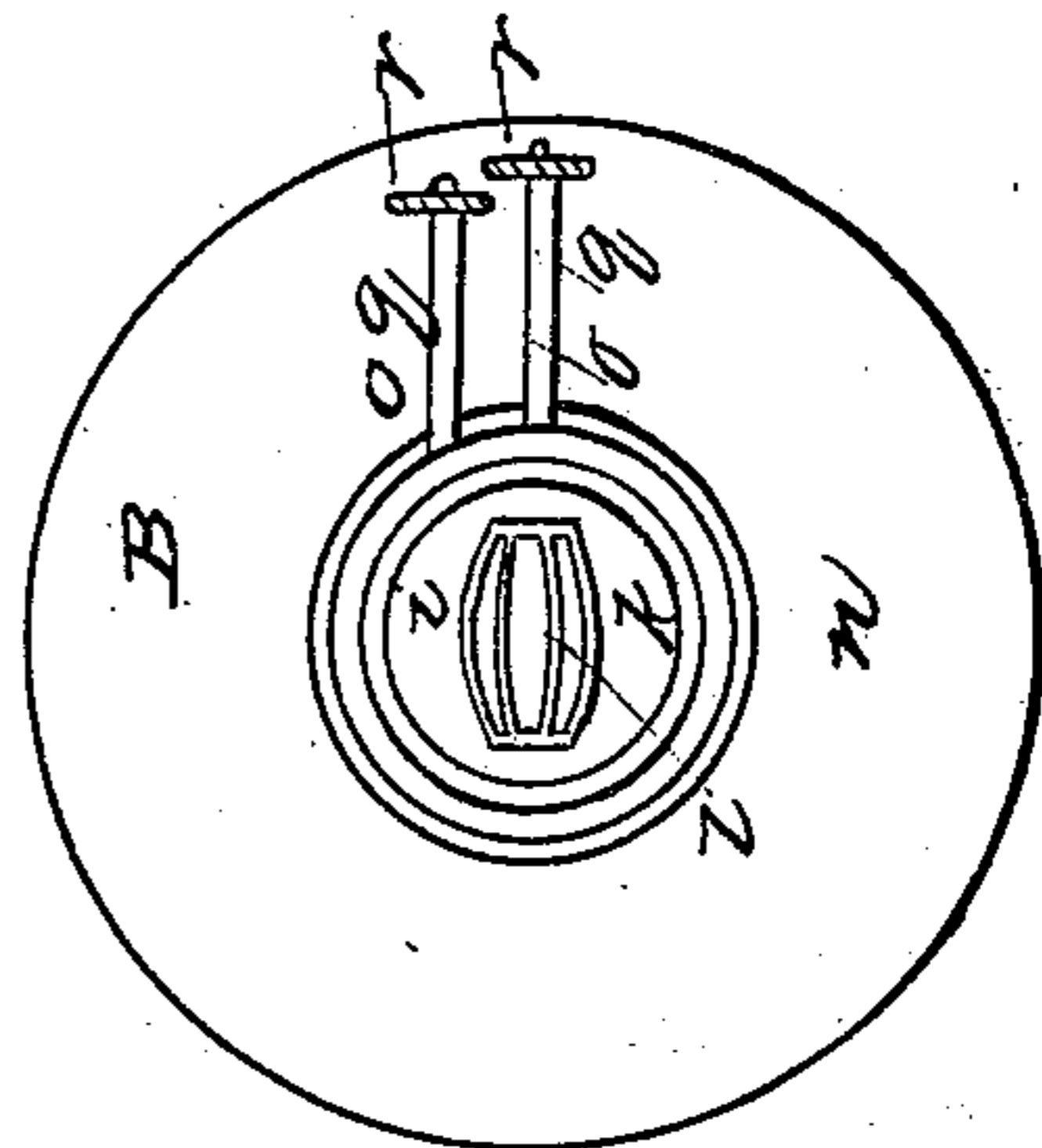


Fig. 3



Witnesses
Frederick Curtis.
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by his attorney
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UNITED STATES PATENT OFFICE.

ABNER T. UPHAM, OF CANTON, MASSACHUSETTS.

IMPROVEMENT IN FOOT-STOVES.

Specification forming part of Letters Patent No. 41,876, dated March 8, 1864.

To all whom it may concern:

Be it known that I, ABNER T. UPHAM, a resident of Canton, in the county of Norfolk and State of Massachusetts, have invented a new and useful Foot-Stove or Warming Apparatus; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a transverse section of the apparatus, it being taken through the entrance door of the case. Fig. 2 is a transverse section taken in a plane at right angles to that of the first section. Fig. 3 is a top view of the lamp or heater.

My invention is an apparatus intended especially for warming the feet of a person; and it may also be used as a lantern for affording light.

In the drawings, A represents a cubical box or case as not only provided with a door-opening, *a*, and a door, *b*, thereto arranged on one of its sides, but as having each of its other sides, either in whole or in part, transparent, each of such sides, as shown in the drawings, being made with an opening, in which is fixed a plate or pane, *c*, of glass. The top plate, *d*, of this case is foraminous, or made with numerous fine or small openings or holes, and has extended from it a series of screws, *eee*, which go through the top plate, *f*, of a guard, C, and have nuts on them and below such plate, the same being for the purpose of adjusting the guard relatively to the foraminous top of the case. The guard is made with a rim or flange, *g*, to extend down from the edges of the plate *f*, the purpose of such rim being to intercept heat and smoke which may arise from the flame of a lamp, B, which is arranged within the case and underneath the center of the guard-plate. There is a passage, *h*, between the flange *g* and the sides of the case.

The lamp has two wick-tubes, *i* and *k*, which are arranged at a short distance apart and have an air conduit or passage, *l*, between them. The air-passage is open only at top and bottom, and at its bottom it leads into or opens directly out of a covered cup or chamber, *m*, which surrounds the two wick-tubes, and has its sides perforated in order to allow air to pass freely into the cup, from whence

it will flow into and through the passage *l* and impinge against the internal surfaces of the flames from the two wicks. These flames, however, from their proximity, will practically unite and form one flame, which derives a great part of its oxygen from the current of air which may be discharged into it by the passage *l*. By so making the lamp there is little or no chance of the flame smoking when kerosene or other hydrocarbon fluid is employed in its reservoir *n*.

To each wick-tube there is applied a wick-elevator, *o*, it consisting of a spur-wheel, *p*, and a rotary shaft, *q*, provided with a milled head, *r*. One of these elevators is arranged so as to enter the inner side of one wick-tube, the other elevator being arranged so as to enter the outer side of the other wick-tube. In this way each elevator can be turned in the same direction for either raising or depressing the wick.

In the operation of my said foot warmer or stove the heat from the flame of the lamp as it rises impinges directly against the center of the guard, and, as the guard is an inverted dish, such heat will spread laterally throughout the same and be retained in a body, the surplus heat escaping underneath the edges of the guard and passing off through the passage around the guard.

The guard, made as described, not only operates to diffuse the heat and retain it and radiate it to the foot-rest or foraminous top of the case, but it serves to protect the feet of a person when on the top of the case from becoming burned by concentrated heat from the flame of the lamp. Were the guard a simple plate the heat would not be retained within and by it and be equally radiated from it, as will be the case when the guard is made as an inverted open dish or chamber.

What I claim is—

The improved foot-stove, as made not only with the foraminous top, but with the chambered guard, arranged with respect to such top and the lamp substantially in the manner and so as to operate as described.

ABNER T. UPHAM.

Witnesses:

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F. P. HALE, Jr.