

REYNOLDS & KITCHELL.

Lamp Stove.

No. 113,567.

Patented April 11, 1871.

Fig. 2.

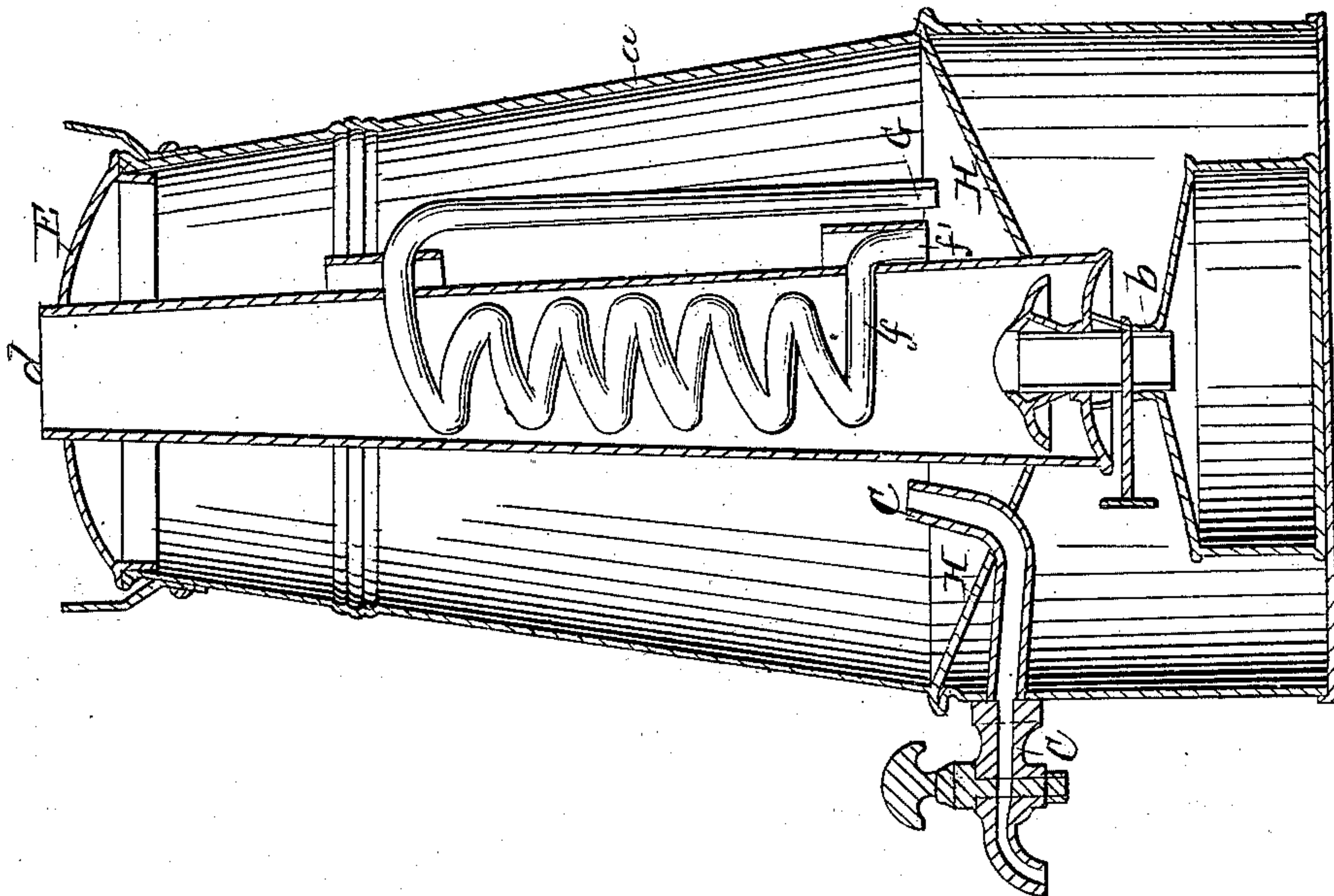
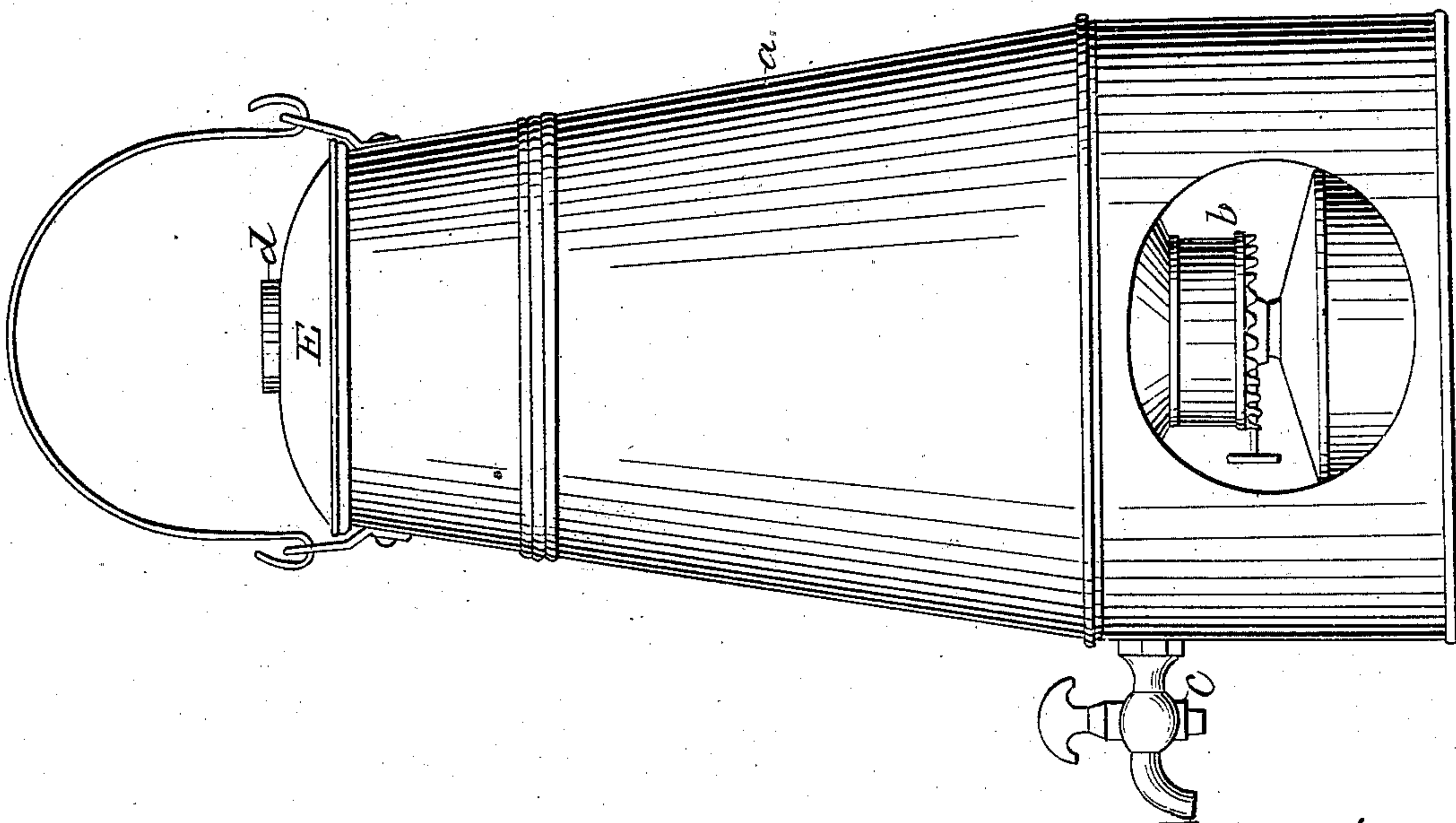


Fig. 1.



Witnesses.

William D. Bramhall  
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Inventors

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# UNITED STATES PATENT OFFICE.

ORLANDO MCKNIGHT REYNOLDS AND DAVID TUTTLE KITCHELL, OF OIL CITY, PENNSYLVANIA.

## IMPROVEMENT IN GAS-HEATERS.

Specification forming part of Letters Patent No. 113,567, dated April 11, 1871.

*To all whom it may concern:*

Be it known that we, ORLANDO MCKNIGHT REYNOLDS and DAVID TUTTLE KITCHELL, of Oil City, in the county of Venango and State of Pennsylvania, have invented a new and useful Fluid-Heater; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The nature of our invention consists in so constructing a fluid-heater as to have the same contain the liquid-reservoir and heating facilities, so that the removal, filling, or discharging shall not destroy or remove the heat, and at the same time furnish the cheapest and most rapid source of heating the same, which may be used stationary or removed from place to place, as occasion shall require.

Figure 1 shows the apparatus complete.

*a* is the fluid tank or reservoir; *b*, the lamp for heating; *c*, the discharge-cock; *d*, the lamp-chimney, passing up through the reservoir; *e*, the cover of reservoir, and also guide and support of chimney; *f*, the coiled siphon-pipe, taking in the fluid at *f'* and discharging it again into the reservoir at *G*, thus exposing a large amount of fluid to the heated surface of the coiled pipe, around which all the heat must necessarily pass, and by the constant circulation of the fluid through it is rapidly

and equally heated. *H* is the bottom of the reservoir, sloping inward so as always to retain a portion of the fluid and prevent burning of the plates, the entrance of the discharge-pipe *c* being above it; and at the same time the remaining fluid is kept hot by the base of the lamp-chimney, while it cannot be entirely exhausted of a hot and protecting fluid.

What we claim, and desire to secure by Letters Patent, is—

1. The construction of the base *H* of the reservoir with sloping plates in such manner as always to retain heated and protecting fluid.

2. The construction of a coiled siphon, *f*, within the chimney of a lamp heating apparatus in such way as to receive fluid from and return it to the reservoir for the purpose of increased and equalizing heating facilities.

3. The combination of the tank *a* with sloping base *H*, lamp *b*, water-pipe *c*, chimney *d*, cover *e*, and coiled siphon *f*, all constructed, arranged, and combined as and for the purposes set forth and described.

ORLANDO MCKNIGHT REYNOLDS.  
DAVID TUTTLE KITCHELL.

Witnesses:

W. B. FOSTER,  
W. F. GROVES.