

(No Model.)

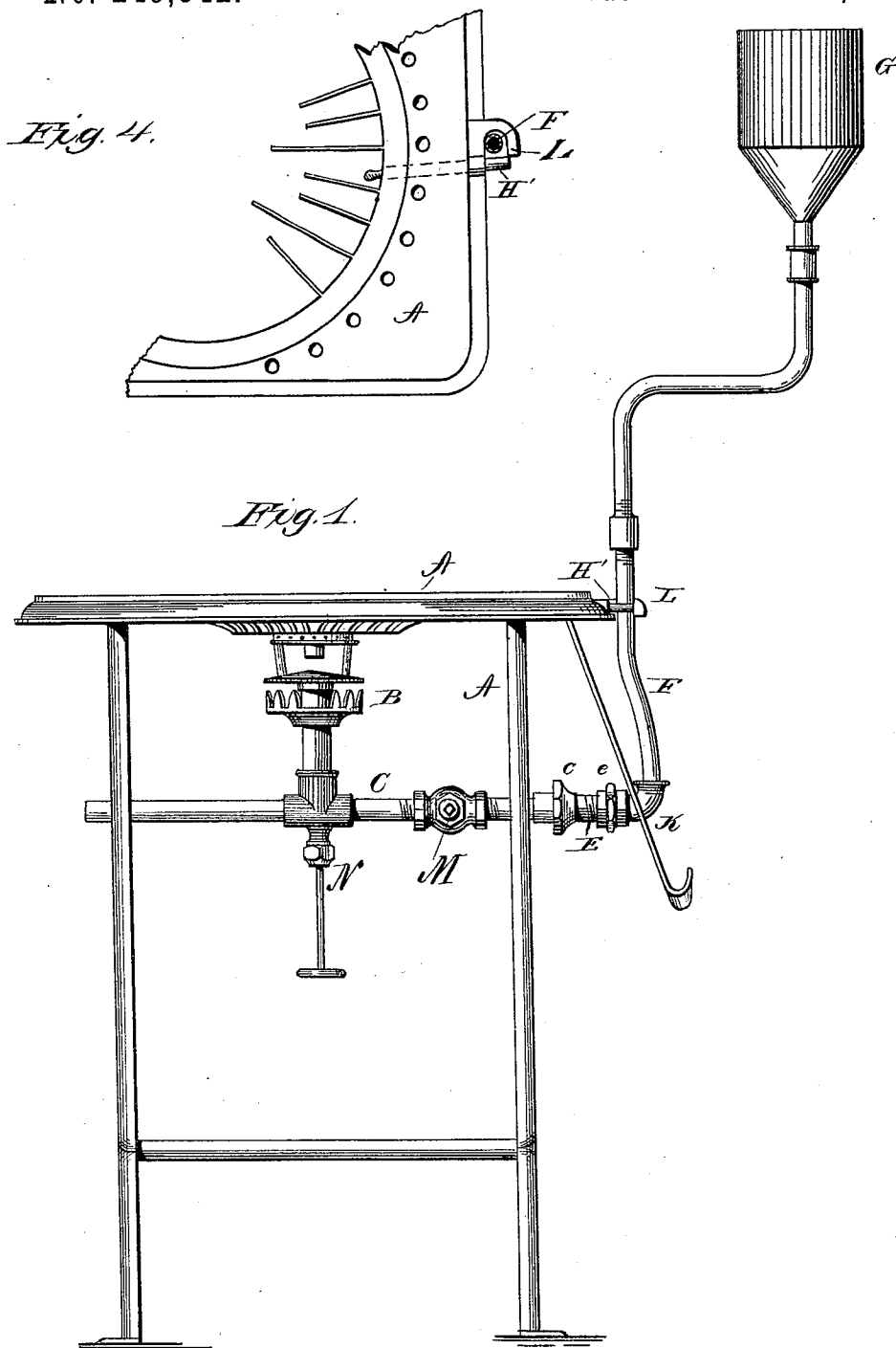
2 Sheets—Sheet 1.

C. F. KLEIN & W. H. WOODARD.

VAPOR BURNING STOVE ATTACHMENT.

No. 249,842.

Patented Nov. 22, 1881.



Witnesses.

P. L. Ouraud.

J. J. McCarthy.

Inventors.

Chas. F. Klein and W. H. Woodard,

per C. M. Alexander,

Attorney.

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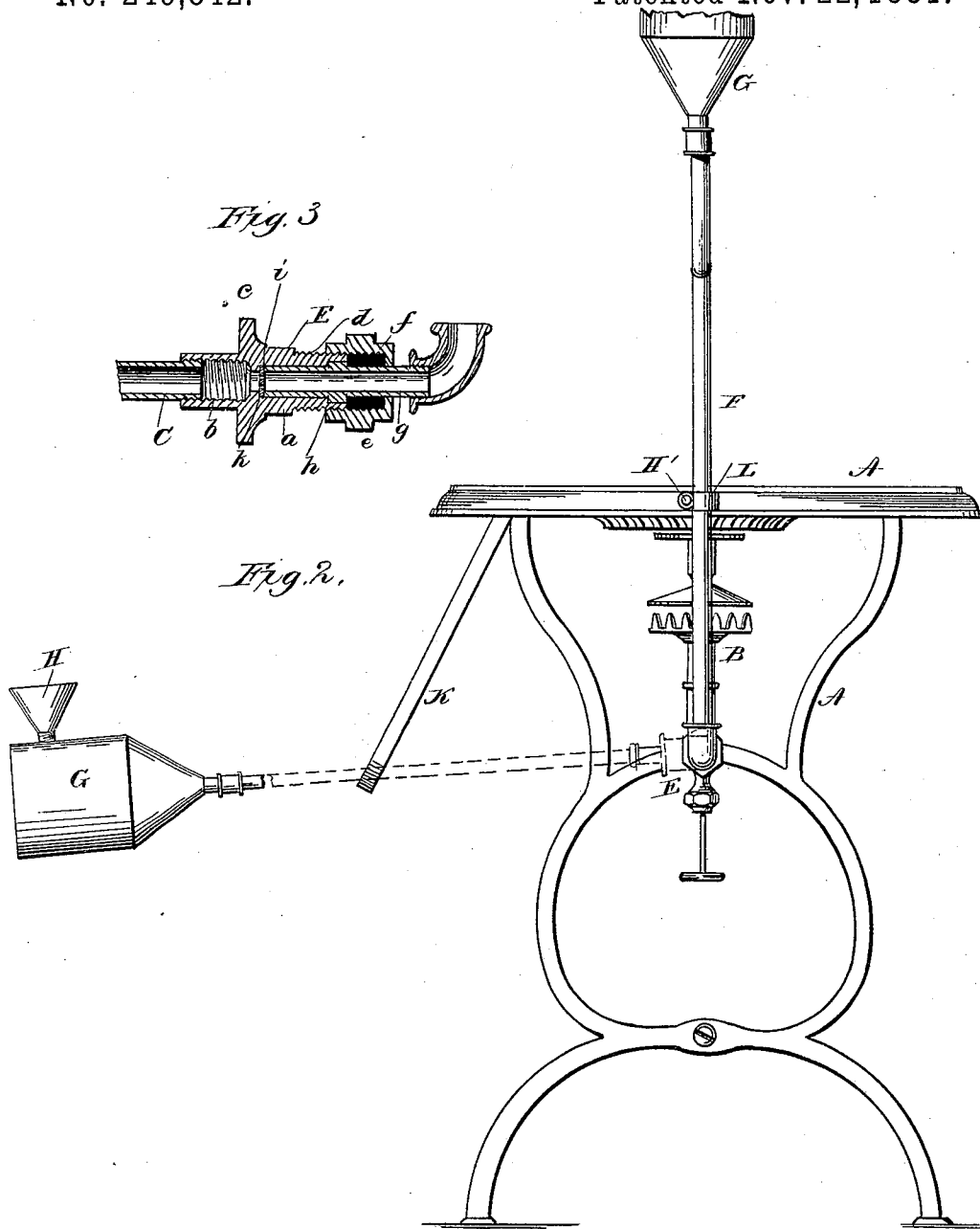
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UNITED STATES PATENT OFFICE.

CHARLES F. KLEIN AND WILLIAM H. WOODARD, OF CLEVELAND, OHIO.

VAPOR-BURNING-STOVE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 249,842, dated November 22, 1881.

Application filed September 8, 1881. (No model.)

To all whom it may concern:

Be it known that we, CHAS. F. KLEIN and WILLIAM H. WOODARD, of Cleveland, in the county of Cuyahoga, and in the State of Ohio, have invented certain new and useful Improvements in Vapor-Burning-Stove Attachments; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in vapor-burning stoves; and it has for its objects to provide certain means whereby the supply of fluid to the burner will be automatically cut off when it is required to charge the reservoir, and the light consequently extinguished, thus obviating all damages of accidental explosion.

In the drawings, Figure 1 represents a side elevation of our invention; Fig. 2, a front elevation thereof; Fig. 3, a sectional view of the coupling detached; and Fig. 4, a top view of a portion of the table, showing the device for holding the oil-pipe in vertical position.

The letter A indicates the frame or table of the stove, which may be constructed in the ordinary form or according to any approved pattern.

B indicates the burner, which is of the ordinary construction, and attached to the fluid-supply pipe C. The said pipe extends horizontally under the top of the table or frame, being supported in suitable bearings, and at one end has swiveled to it, by means of the coupling E or otherwise, one end of a pipe or tube, F, extending from a reservoir, G. The reservoir is provided at one side with a funnel, H, and valve, through which it may be filled when in proper position.

The letter L indicates a detent to receive the swiveled tube or pipe F and hold it in a vertical position, and H' a bolt for securing the pipe in said detent. Other means or devices, however, may be employed to retain the pipe in a vertical position without departing from the spirit of our invention.

The letter K indicates a bracket, bent at its lower end and secured to the table or frame of the stove. The said bracket is adapted to receive and hold the swiveled supply-pipe in a horizontal, or approximately horizontal, position when turned down, in order to permit the reservoir to be filled.

The letter M indicates a valve, the stem of which is rectangular in cross-section, whereby a key may be applied so as to regulate the flow of fluid to the burner and prevent unauthorized persons from interfering with the operation of the apparatus. The said valve, instead of being applied as an independent section in the supply-pipe, may constitute the main controlling-valve instead of the ordinary valve indicated by the letter N.

The operation of our invention will be readily understood from the foregoing description, and is as follows: When the swiveled pipe is in a vertical position the burning-fluid, by its own gravity, will flow to the burner, the supply being regulated by the valves. When it is required to charge the reservoir the swiveled pipe is turned down to a horizontal, or approximately horizontal, position, permitting any contained burning-fluid to flow into the reservoir and exhausting all fluid from the burner, thus extinguishing the light during the time the reservoir is being filled. By means of the regulating-valve the supply of oil may be controlled, so that unauthorized persons cannot interfere with the supply from the reservoir to the burner.

Although an ordinary coupling may be employed for connecting the pipes C and F, we prefer to use the coupling illustrated in Fig. 4 of the drawings, in which the letter E, as before mentioned, indicates the coupling proper. This consists of a cylindrical shell, *a*, internally screw-threaded at *b*, flanged at *c*, and externally screw-threaded at *d*.

The letter *e* indicates a screw-nut, provided with packing *f*, and fitted upon a tube, *g*, which is provided with a collar, *h*, adapted to fit in the recess *h'* at the end of the shell *a* in such manner as to confine the tube *g* in the shell *a* and make a tight joint.

The letter *i* indicates a perforated plate seated at *k*, and held in place by the end of the tube *g*, the said plate serving to prevent any solid matters or sediment from finding its way to the burner.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

- 5 1. The combination, in a vapor-burner stove, of the swiveled supply-pipe and reservoir, adapted to be adjusted so as to deliver the fluid to the burner while in operation and automatically cut it off when required for filling, substantially as and for the purposes specified.
- 10 2. In combination with the stationary delivery-pipe, the swiveled pipe and reservoir, and mechanism for holding it in a vertical position, substantially as specified.
- 15 3. The combination, with the frame or table of the stove, the stationary delivery-pipe, and burner, of the swiveled supply pipe and reservoir and bracket for holding the same in a

horizontal, or approximately horizontal, position, substantially as and for the purpose specified.

4. In combination with the shell *a*, screw-threaded as described, the tube *g*, provided with a collar, *h*, the screw-nut *e* and its packing fitted over said tube, and the perforated plate *i*, all constructed and arranged substantially as and for the purposes specified.

In testimony whereof we affix our signatures, in presence of two witnesses, this 3d day of September, 1881.

CHARLES F. KLEIN.
W. H. WOODARD.

Witnesses:

JOHN H. MICKLISH,
J. J. MCCARTHY.