

(No Model.)

C. F. KLINE & W. H. WOODARD.

VAPOR STOVE.

No. 252,476.

Patented Jan. 17, 1882.

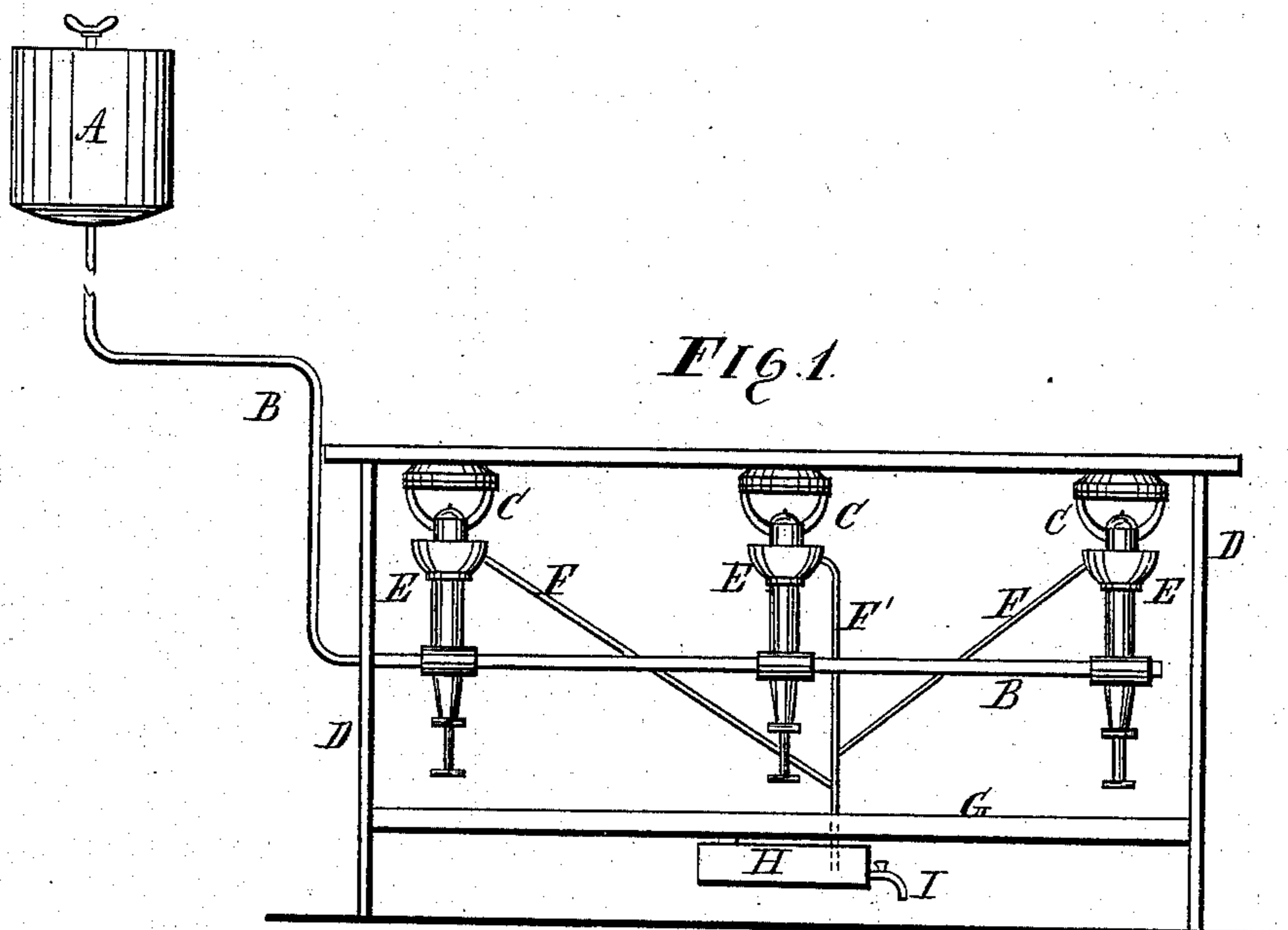
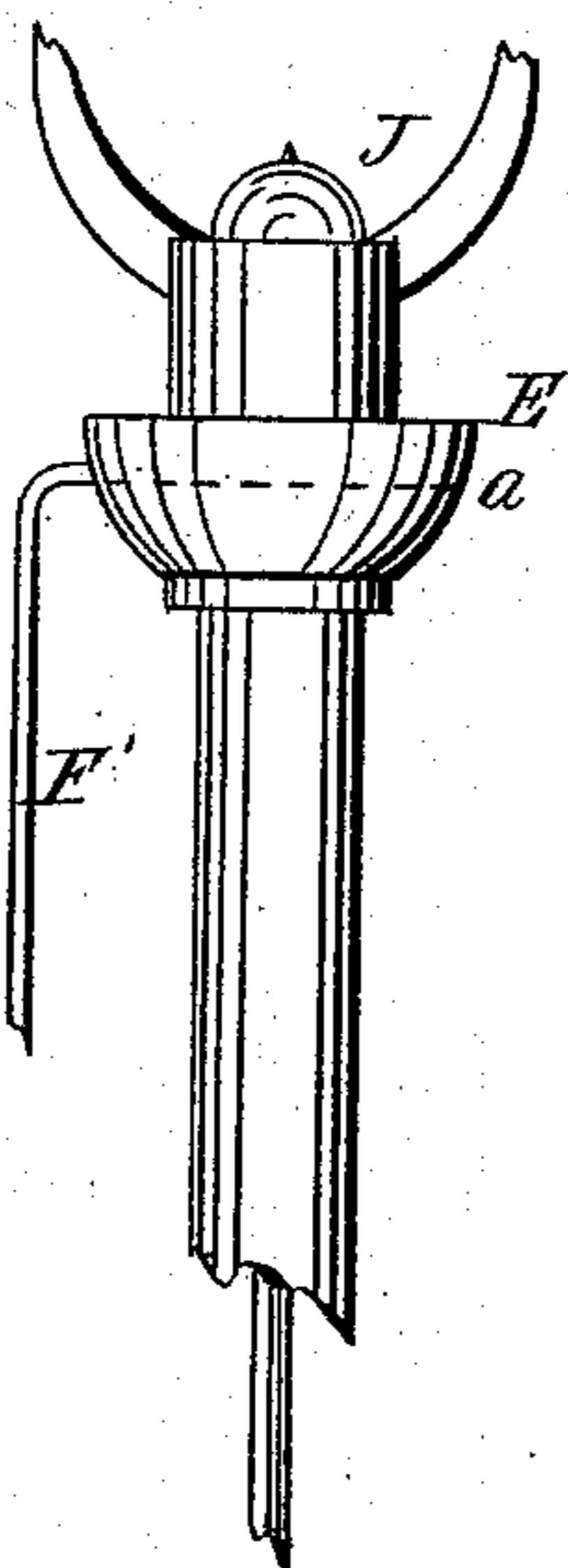


Fig. 2.



Witnesses.
J. G. Burridge
M. L. Dering

Inventors.
C. F. Kline
W. H. Woodard
W. H. Burridge atty.

UNITED STATES PATENT OFFICE.

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

VAPOR-STOVE.

SPECIFICATION forming part of Letters Patent No. 252,476, dated January 17, 1882.

Application filed October 29, 1881. (No model.)

To all whom it may concern:

Be it known that we, CHARLES F. KLINE and WILLIAM H. WOODARD, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and Improved Safety Attachment for Vapor-Stoves; and we do hereby declare the following to be a full, clear, and complete description thereof.

This invention relates to a safety attachment for gasoline-stoves, the nature of which consists in connecting with the drip-cups or their equivalents a certain arrangement of pipes for conveying off from the burner all excess of oil which may have escaped through the needle-valve. The said pipes are in connection with a receiver, into which the oil passes from the pipes.

That others may more fully understand the extent of this improvement, reference will be had to the following specification, and to the annexed drawings, making part of the same, in which a full and complete description of the said invention is set forth. It is not required that the vapor-stove should be especially constructed and arranged for this purpose, as the improvement may be applied to any ordinary stove of this class provided with the usual appendages, as will be shown on reference to the drawings, which are designed to show the manner of applying the said improvements.

In the drawings Figure 1 purports to represent a side view of an ordinary vapor-stove, having the usual attachments of a reservoir, A, with a feed-pipe, B, leading to the burner C, and provided with the ordinary valve mechanism, and secured to a frame, D. Fig. 2 is a detached enlarged section, to which reference will be made.

Directly under each burner is a drip-cup, E, to which are attached pipes F to the outside cups, and a pipe, F', to the central cup. The lower ends of the pipes F F terminate in the pipe F', as shown in the drawings, and the pipe F' extends down through the drip-pan G, while to its lower end is screwed or otherwise attached a receiver, H, having a faucet, I, for

drawing off the gasoline or oil received therein through the pipes from the cups.

In igniting the burner it is the practice to allow the oil to flow out from the needle-valve at J, Fig. 2, into the cup E, and then fire it to start the burner. This practice is dangerous, and without care or due caution serious results follow, from the fact that the cup is liable to be overflowed and run down over the pipes or burners and onto the drip-pan G; and on igniting the oil in the cup the flame spreads, involving all parts of the stove reached by the oil. The oil being of an inflammable and explosive nature, the result is (too often) personal injury and destruction of property. These consequences follow sometimes in a neglect to close the needle-valve of the burner and the valve of the reservoir when the stove is not lighted, and in the attempt to light it an explosion follows.

The object of the said improvement is to remove these dangers as far as possible in arresting the overflow of the cups by conducting off the surplus oils through the safety-pipes F F' to the receiver H. As the oil is received into the oil or drip cup it rises up to the line a, Fig. 2. As soon as it reaches that point it will flow out of the cup, through the pipe F, into the receiver H, which will effectually prevent the cups from overflowing, leaving sufficient oil in the cup below the line a for the purpose of igniting the burner.

The openings into the pipes from the cups are covered with fine wire-gauze or finely-perforated sheet metal, and also the opening into the receiver H, leading from the pipe F', to prevent explosion or burning of oil or vapor in the pipes or receiver.

Instead of connecting the pipes directly with the drip-cups, they may be attached to secondary oil-cups placed on the burner-tubes below the cups E, in which case the overflow from the cups would run into the secondary ones, from which it could be conveyed off to a receiver in the same way as from the cups E.

In place of having one reservoir for all the

burners there may be one for each burner separately.

The capacity of the receiver should be in proportion to the number and size of the burner, to receive all the overflowing or waste oil.

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

In vapor-stoves, the combination of the supply-pipe, the drip-cups beneath the burners, and the overflow-pipes attached to the drip-cups near the top edge and leading to a lower reser-

voir, whereby the oil in the cup is prevented from overflowing when ignited for use, substantially as and for the purpose described.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES F. KLINE.
WILLIAM H. WOODARD.

Witnesses:

J. H. BURRIDGE,
W. H. BURRIDGE.