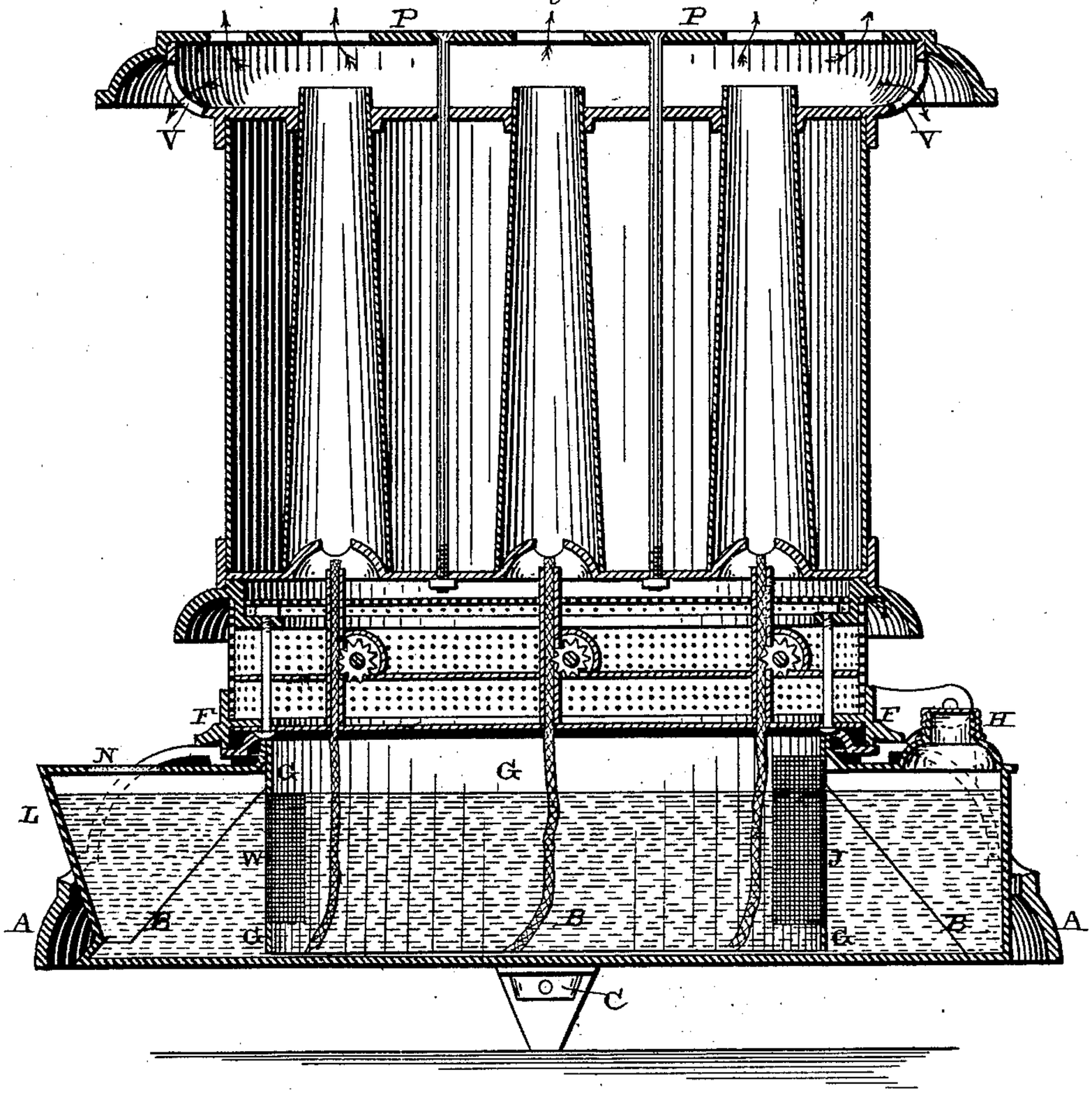
(No Model.) 2 Sheets—Sheet 1.

J. S. VAN BUREN.

OIL STOVE.

No. 257,110. Patented Apr. 25, 1882.

Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

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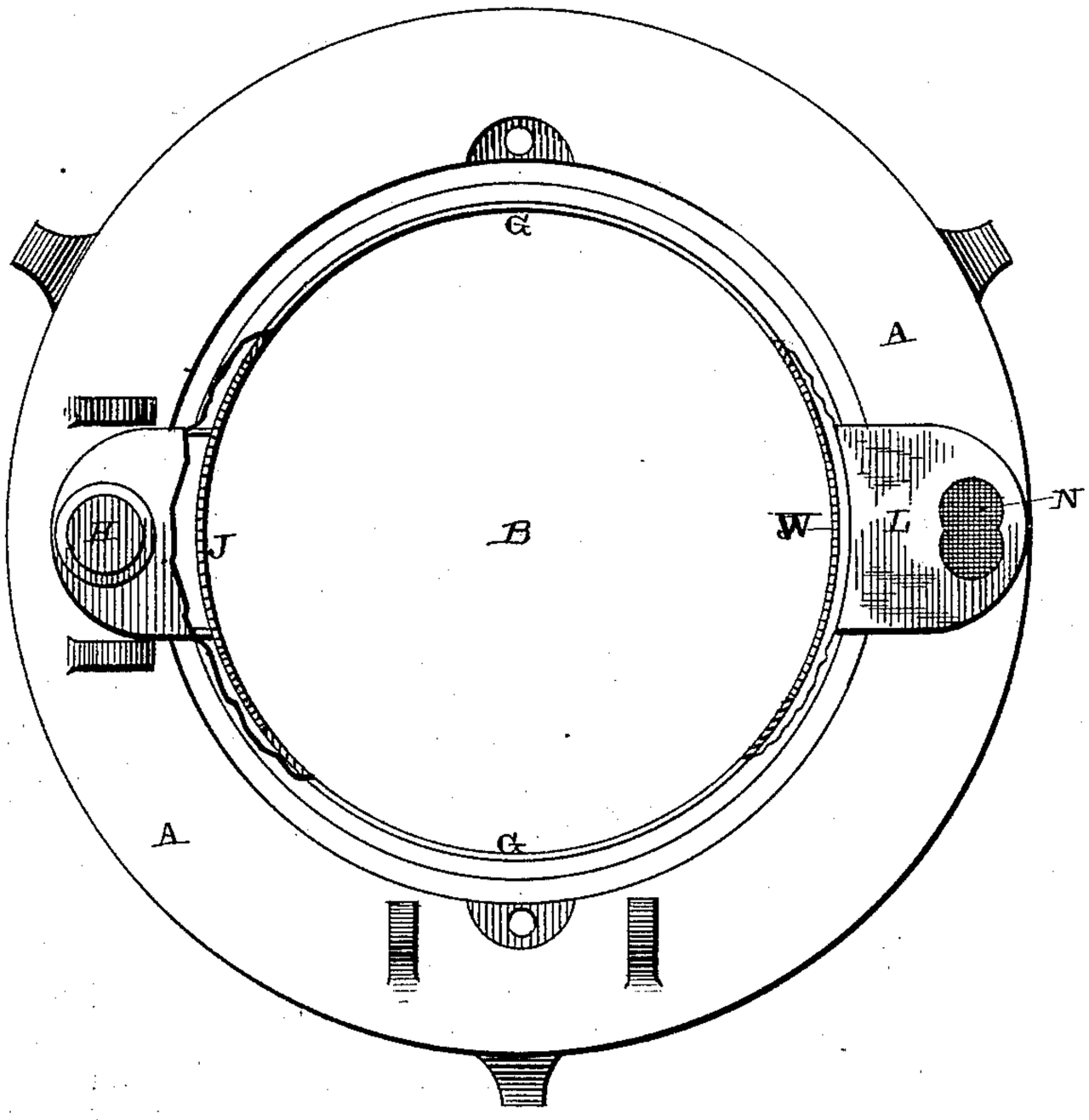
OIL STOVE.

No. 257,110. Patented Apr. 25, 1882.

Fig. 2



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UNITED STATES PATENT OFFICE.

JAFEW S. VAN BUREN, OF ALBANY, NEW YORK.

OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 257,110, dated April 25, 1882.

Application filed January 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAFEW S. VAN BUREN, of Albany, in the county of Albany and State of New York, have invented certain new and useful Improvements in Oil-Stoves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in oil-stoves; and it consists, first, in placing inside of the reservoir, which is made larger at its bottom than its top, a vertical annular partition, which is placed loosely in the reservoir, and under the lower edges of which the oil must rise into the wick-chamber, so that, should the oil outside of the partition catch on fire, the fire cannot communicate with the main body of the oil in the center of the reservoir; second, in making an outlet on one side of the reservoir for the gas or vapor which may be generated from the oil, and covering the top and bottom of this outlet with very fine wire-gauze.

The object of this invention is to produce an oil-stove which is so constructed that there is not the slightest danger of the vapor or gas arising from the oil producing an explosion.

Figure 1 is a vertical section of my invention. Fig. 2 is a plan view of the reservoir and the base of the stove.

A represents an ornamental iron base, inside of which the detachable reservoir is placed, at any suitable distance above the floor. This reservoir B is here shown as being supported in position by having suitable supports, C, fastened to the inner sides of the legs; but it may be secured in position in any other suitable manner. Resting upon the top of this reservoir so as to hold it tightly in place, and at the same time form a more perfect joint with the hinged part which carries the burners, is the collar F, which is secured in place by means of any suitable fastening devices. Inside of this reservoir, which is made considerably larger at its bottom than at its top, is loosely placed the vertical annular partition G, which is not fastened to the reservoir at either top or bottom, and which has its lower edge to extend down in contact with the bottom of the reservoir. The lower edge of this partition rests loosely upon the bottom of the reservoir so that any oil which is poured in at the filling-hole H will rise under the bottom edge of the partition into the central part of the reservoir. This partition is intended as a safety attachment for the purpose of preventing fire from passing into the reservoir should the oil ever accidentally catch on fire while the reservoir is being filled, and to prevent a larger body of the oil from catching fire in case the oil should become ignited inside of the partition than would otherwise be the case. This partition, which extends all the way around the reservoir, also serves to allow a section of very fine wire-gauze, J, to be fastened to it, and which gauze serves both to allow the oil to flow freely into the wick-chamber and to prevent the flame being communicated to the oil in the reservoir in case the oil should catch on fire while the reservoir is being filled. This gauze may be of any desired shape or length, as its only object is to allow the vapor and oil to pass through into the outside chamber.

Projecting out from one side of the reservoir is the extension L, which has an opening through its top, which is covered over by a very fine gauze, N. An opening is also made through the vertical partition just below the gauze N, and this opening is also covered with gauze W, so that the gas will not be held in the wick-chamber, but will escape at once. Any gas which gathers in the reservoir outside of the vertical partition, which extends all the way around, makes its escape through the gauze, and as the gauze is very fine, there is not the slightest danger of fire being communicated to the oil, for the well-known reason that flame cannot pass through small perforations.

In order to still further add to the safety of the stove, a sheet of perforated metal is placed around the burners, and which serves the double purpose of preventing heat from being radiated downward, and to prevent any possibility of the vapor arising from the oil from catching fire as it is being drawn inward by the draft to the burners. The great aim sought by me in this invention is to produce a stove which is absolutely free from all danger of explosion, and this I do by dividing the reser-

voir into two chambers and separating them in such a manner that should the oil catch fire in one it cannot well communicate to the other.

The top P of the stove is made perfectly flat, and through this top is made a perforation for each chimney or burner, so that the heat can be brought in direct contact with the vessel placed on the top. Through the sides of this top are made suitable openings, V, through which the products of combustion escape. By the use of these openings the projections which are usually employed upon the top of the stove to support the utensil, so that the products of combustion can escape under it, are dispensed with, and utensils of all kinds can be placed directly upon the top of the stove. When the projections are used utensils having thin bottoms are always liable to be injured, and it is to avoid this liability to accident that they are dispensed with.

Having thus described my invention, I claim—

In an oil-stove, the combination of the reservoir B, made largest at its bottom and provided with an extension, L, and filling-hole H, the vertical partition G, provided with the gauzes J W, the partition being loosely placed inside of the reservoir, and the extension being provided with the gauze N, substantially as shown.

In testimony whereof I affix my signature in presence of two witnesses.

JAFEW S. VAN BUREN.

Witnesses:

A. J. SHIPPER,

W. J. DUNN.