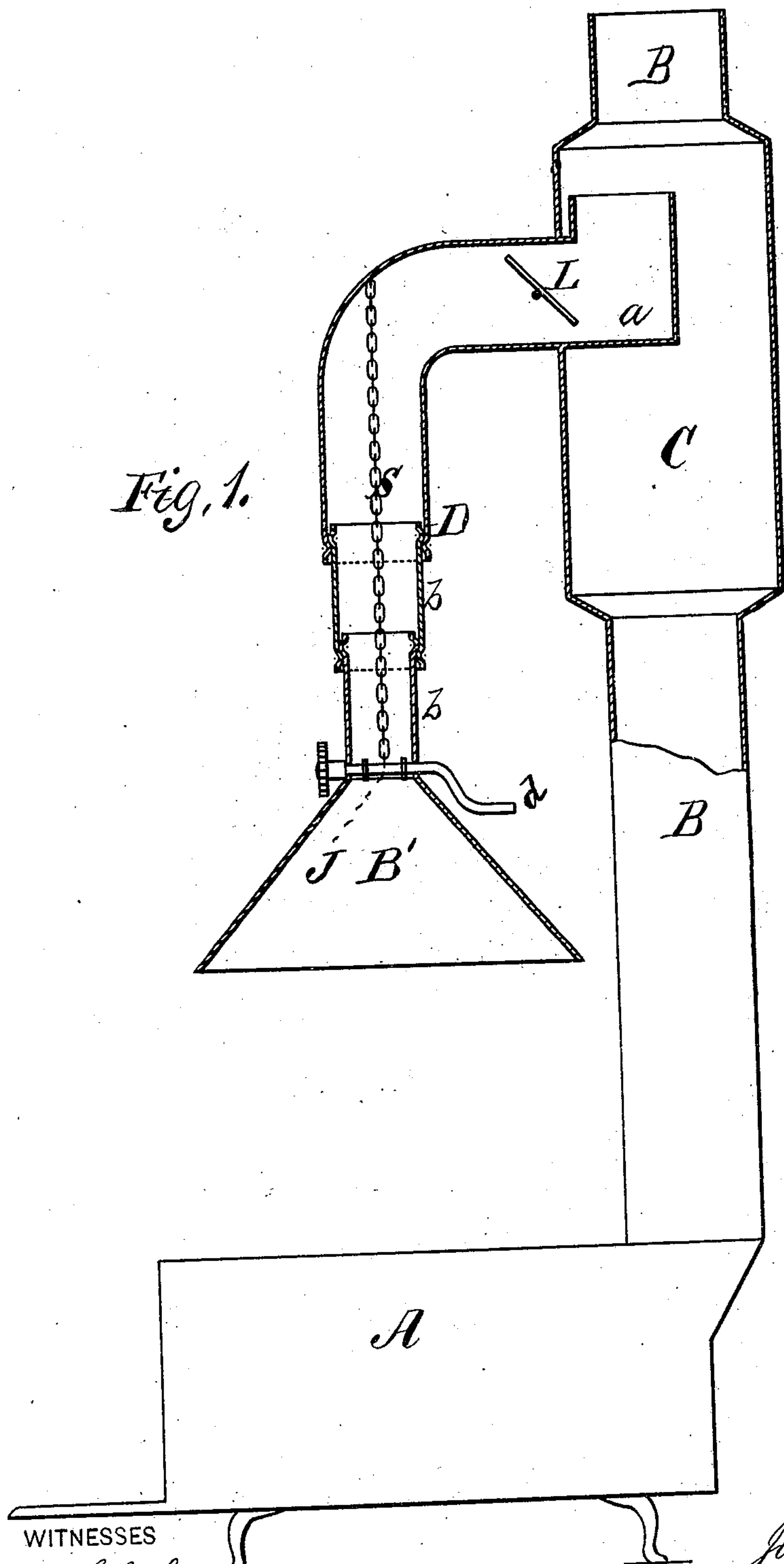


J. HARDING
 Ventilator Attachment for Cook-Stoves.
 No. 204,819. Patented June 11, 1878.



WITNESSES
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UNITED STATES PATENT OFFICE.

JUSTUS HARDING, OF GOSHEN, INDIANA.

IMPROVEMENT IN VENTILATOR ATTACHMENTS FOR COOK-STOVES.

Specification forming part of Letters Patent No. **204,819**, dated June 11, 1878; application filed May 18, 1878.

To all whom it may concern:

Be it known that I, JUSTUS HARDING, of Goshen, in the county of Elkhart and State of Indiana, have invented a new and valuable Improvement in Ventilator Attachments for Cook-Stoves; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

The drawing is a representation of vertical central section of my improved ventilator applied to a cook-stove.

This invention has relation to improvements in ventilators for stoves.

The object of the invention is to collect the steam and other odors arising from cooking and carry them through the smoke-flues into the open air, instead of allowing them to be disseminated in the room and condense upon the walls or ceiling thereof, to their manifest disfiguration.

The nature of the invention consists in the construction and novel arrangement, in connection with a stove and its pipe, of a drum on said pipe, a tube opening into said drum, and turning upward therein, and a vapor-gatherer on the lower end of said tube, as will be hereinafter more fully shown and described.

In the accompanying drawing, the letter A designates a stove, and B a pipe leading therefrom into a chimney-flue, and provided, at a suitable point either in the vertical or horizontal part of the same, with an enlargement, C, resembling a drum, for a purpose hereinafter explained.

B' represents a funnel-shaped metallic vapor-gatherer, of suitable dimensions, arranged over the stove and connected to the pipe B by means of a tube, D. This tube enters the pipe B at the drum C, after which it is turned upward, forming a short elbow, *a*, in the direction of the draft from the said pipe, thus

preventing the draft from the stove from being materially impaired, and creating an upward draft in the tube, that exhausts the odors and vapors caused by cooking from the room.

The drum C is of such a diameter relative to that of the pipe B and tube D that the space adjacent to tube D therein left unoccupied by the said tube is equal in dimensions and in capacity for carrying off the products of combustion to the said pipe B—that is to say, if the interior diameter of the pipe B is five inches and of tube D two and one-half inches, the diameter of the drum should be seven and one-half inches, to create in the drum a flue of five inches.

The vertical portion of pipe D is made of one or more telescoping sections, *b b*, and at its junction with the vapor-gatherer B' is provided with a winding-drum, J, controlled by a pawl-and-ratchet mechanism, by means of which and a chain, S, secured at one end to the drum and at the other to the pipe D, above its sections *b b*, the funnel may be adjusted nearer to or farther from the stove, according to the height of the culinary vessels seated thereon. This drum is actuated by a crank, *d*.

L represents a damper arranged in tube D, and designed to cut off and regulate the upward current through the said tube, as required.

What I claim as new, and desire to secure by Letters Patent, is—

The combination, with a stove, A, its pipe B, and a drum, C, on said pipe, of a tube, D, opening into said drum and turning upward therein, and a vapor-gatherer, B', on the lower end of the said tube, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JUSTUS HARDING.

Witnesses:

A. S. ZOOK,
L. H. BEYERLE.