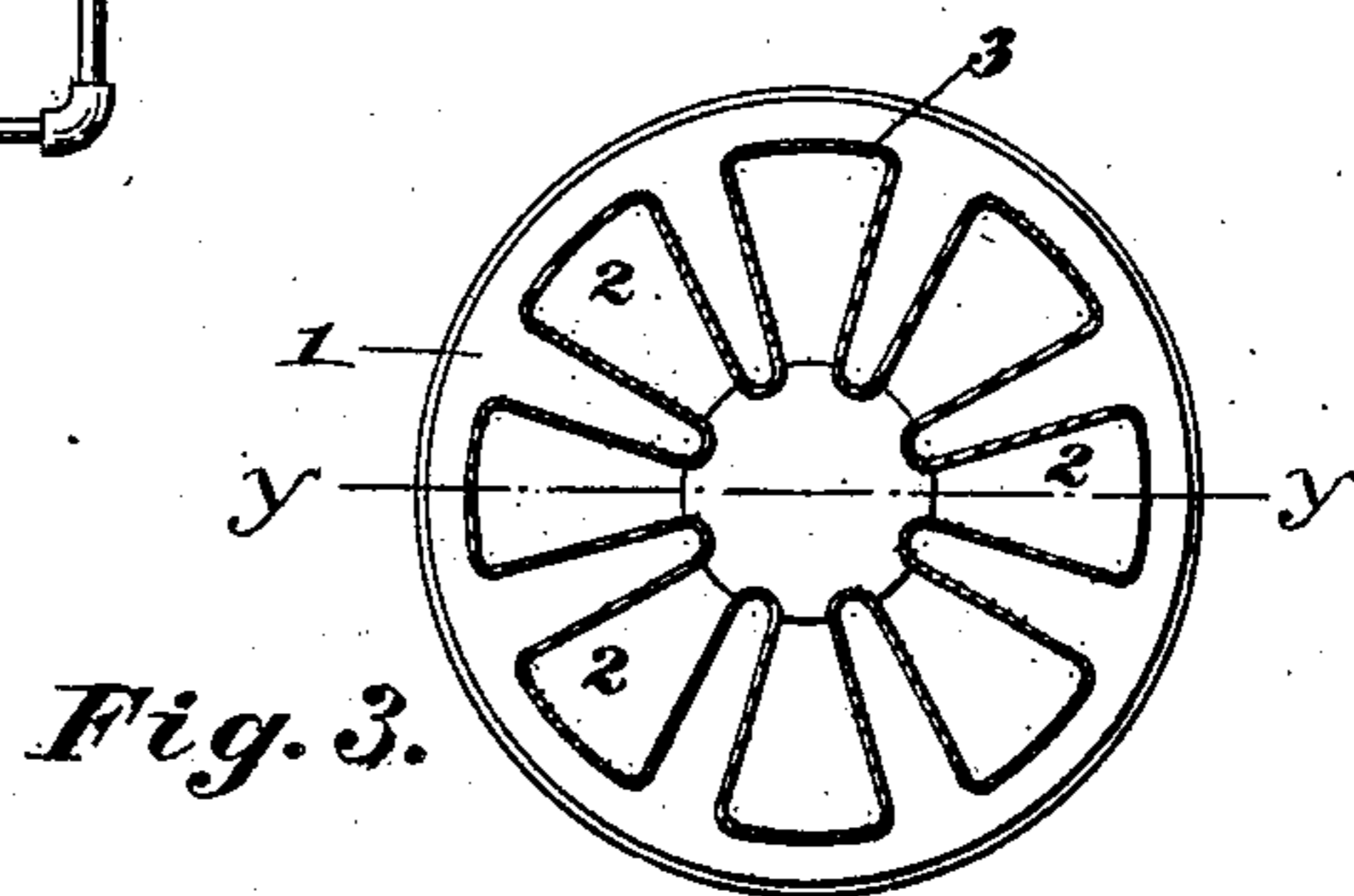
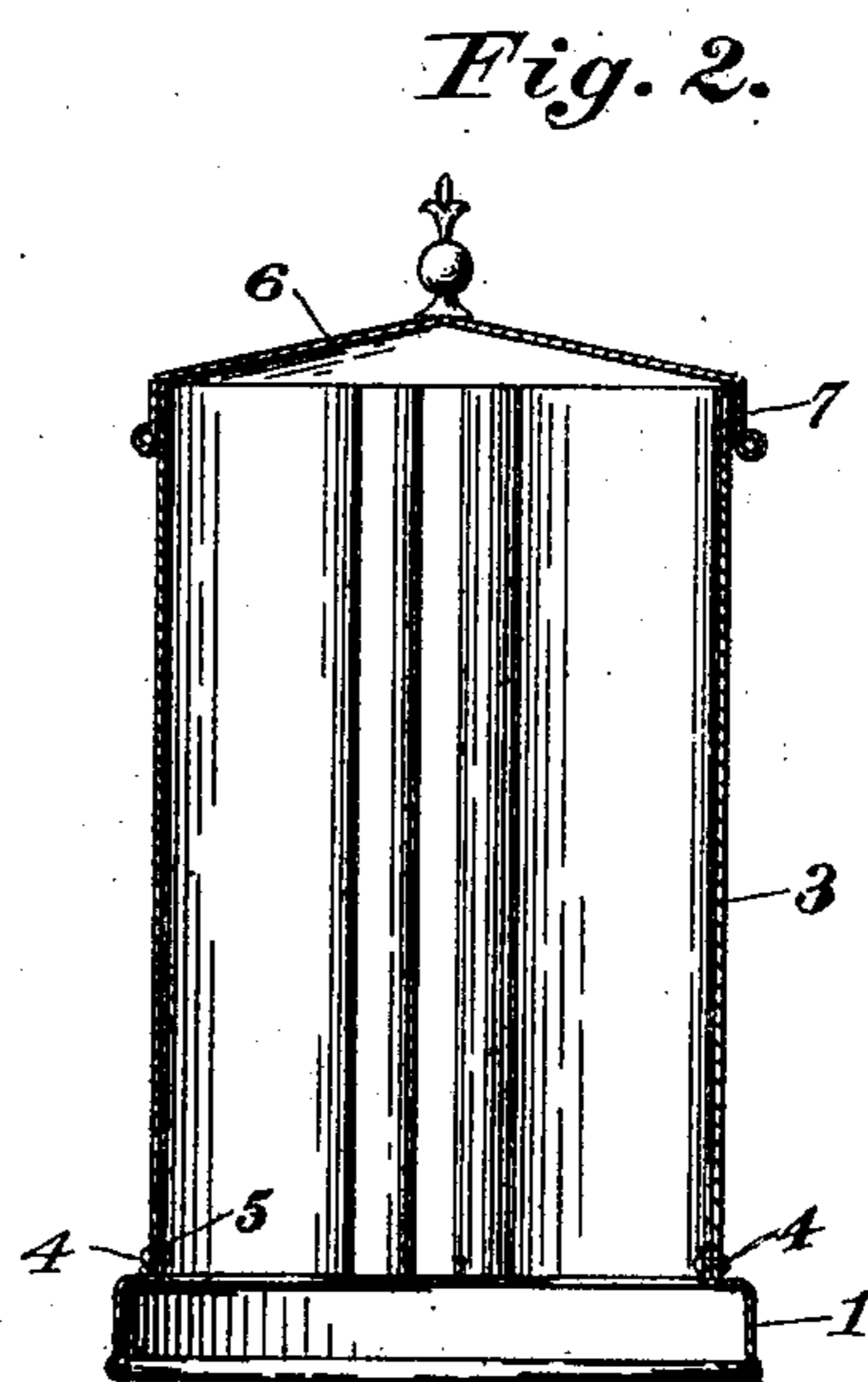
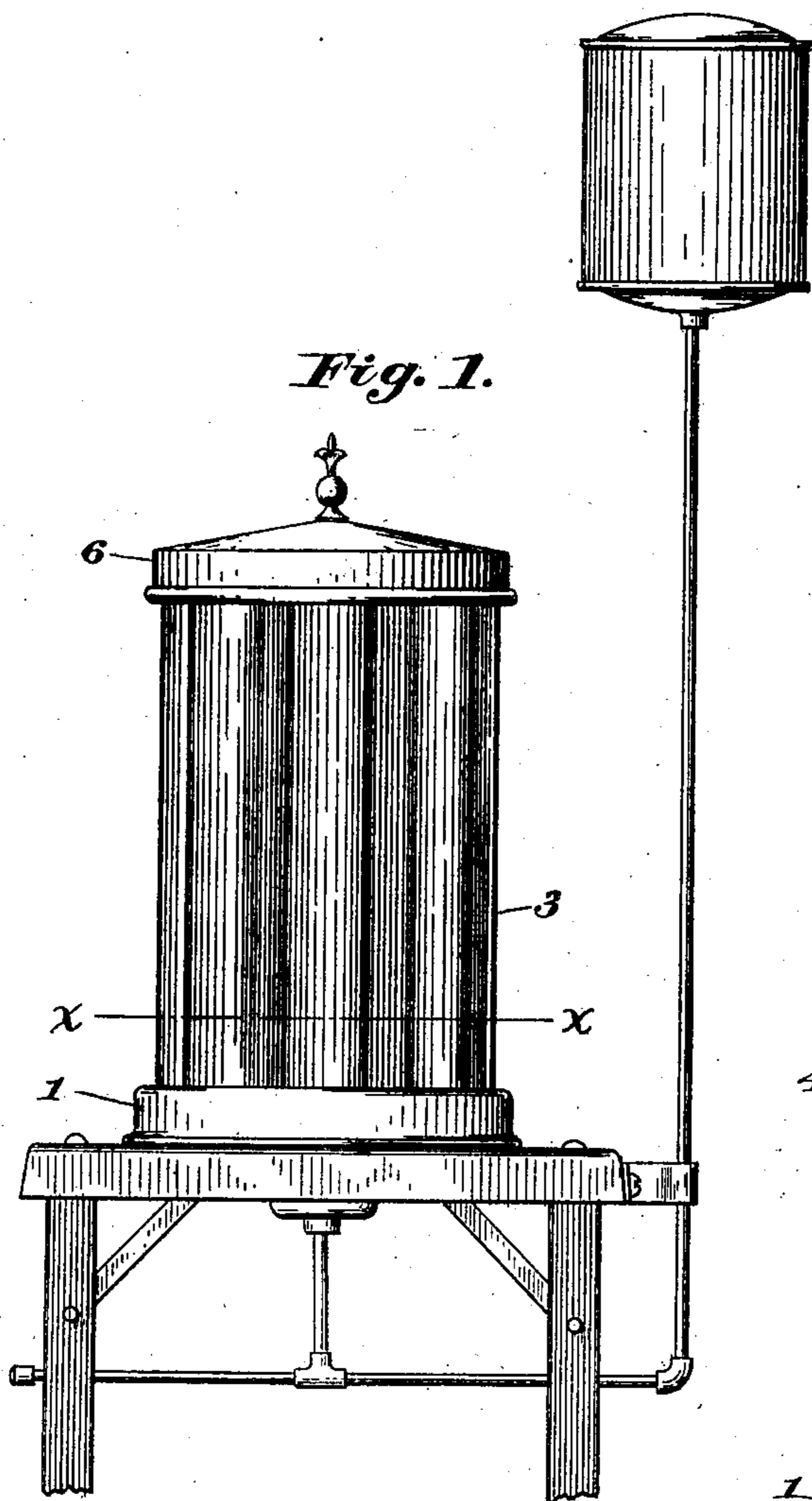


No. 888,035.

PATENTED MAY 19, 1908.

W. C. RICHMAN.
AUXILIARY HEATER.
APPLICATION FILED JUNE 13, 1907.



WITNESSES

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WILLIAM C. RICHMAN, OF VERMILION, SOUTH DAKOTA.

AUXILIARY HEATER.

No. 888,035.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed June 13, 1907. Serial No. 378,745.

To all whom it may concern:

Be it known that I, WILLIAM C. RICHMAN, citizen of the United States, residing at Vermilion, in the county of Clay and State of South Dakota, have invented certain new and useful Improvements in Auxiliary Heaters, of which the following is a specification.

My invention relates to an auxiliary heater radiator, and consists in the construction and arrangements of the parts which will be more fully hereinafter described, illustrated in the drawings, and particularly pointed out in the claims.

One object of my invention is to provide a heater for oil, gas, gasolene, or alcohol stoves which shall be adapted to receive and radiate heat.

Another object of my invention is to provide an auxiliary heater which shall have a greater air radiating surface than heaters heretofore produced so far as I am aware.

A further object of my invention is to produce an effective radiating heater which will be simple in construction, durable, and readily understood and handled.

My invention is illustrated in the accompanying drawings forming a part of this application and in which:

Figure 1 is a side elevation of my heater and radiator as used in connection with stoves. Fig. 2 is a vertical section of my heater on line $y-y$ of Fig. 3. Fig. 3 is a horizontal section of my heater on line $x-x$ of Fig. 1.

This heater consists of three sections or parts, viz: (1) a base 1 which may be of any convenient form for adjusting it to the burner of the stove on which it is to be used, but is preferably of the form and shape shown in Figs. 1 and 3; (2) the central or main radiating portion 3 which is formed of a convoluted sheet or sheets of metal secured permanently to the base which is provided with necessary openings which register with the openings in the convoluted portions; and (3) a cover or top 6 which may be used for confining the heated air from the stove within the central part, or may be removed so as to permit the boiling or heating of water in a kettle or other vessel on the top of the heater or radiator, or for other purposes as desired.

The auxiliary heater herein described and claimed is designed for use on stoves as herein mentioned.

As shown in Fig. 1 of the drawings, which

illustrates one form of stove with which it may be used, a tank for containing oil or gasolene and a pipe leading therefrom to a burner in the stove are shown. This invention is not confined to such a structure, but the structure shown may be used in connection with this heater.

Referring now more particularly to the drawing, in which similar reference characters are used to designate corresponding parts throughout the several views; 1 is the base portion which consists in the present illustration of an inverted pan having the radial perforations 2 in its bottom for the passage upward of the heated air from the stove. These perforations are of suitable form to register with the inner convolutions of the central radiating portion which is designated by 3, and which is shown secured by the rivets 4, passing through lugs 5 turned up from the bottom section.

The central radiating portion 3 consists of one or more pieces of sheet metal wrought into convoluted form clearly shown in Fig. 3 which obviates all dead air space while giving the largest area of radiating surface in the simplest manner possible.

6 represents the cover or top section. This may be simply a flat plate or cover with a band 7 as shown and may, of course, be plain or ornamented as the fancy may require.

From the foregoing description, the operation of my heater will be readily understood. When it is placed on a stove the heated air from the stove will be no longer diffused into the atmosphere as fast as it is warmed but will be confined within the radiator where the heat is collected to pass off in the form of radiations into the surrounding space.

Having now fully described my invention, what I claim and desire to secure by Letters Patent is:—

1. An auxiliary heater of the class described comprising a perforated base, a central air collecting chamber having convolutions registering with the perforations in said base, and a removable top or cover adapted to confine the heated air within the convoluted chamber, substantially as described.

2. In a heating apparatus, the combination with a primary heater, of an auxiliary heater comprising a perforated base, a convoluted air collecting chamber, and a removable top, substantially as described.

3. In a heating apparatus, the combination

tion with a primary heater of an auxiliary heater comprising a hollow base 1 provided with openings 2, a collecting chamber consisting of convolutions 3 registering with
5 openings 2, and a removable top or cover 6, substantially as described.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

WILLIAM C. RICHMAN.

Witnesses:

GEORGE J. KNUPKER,
JOHN L. JOLLEY.