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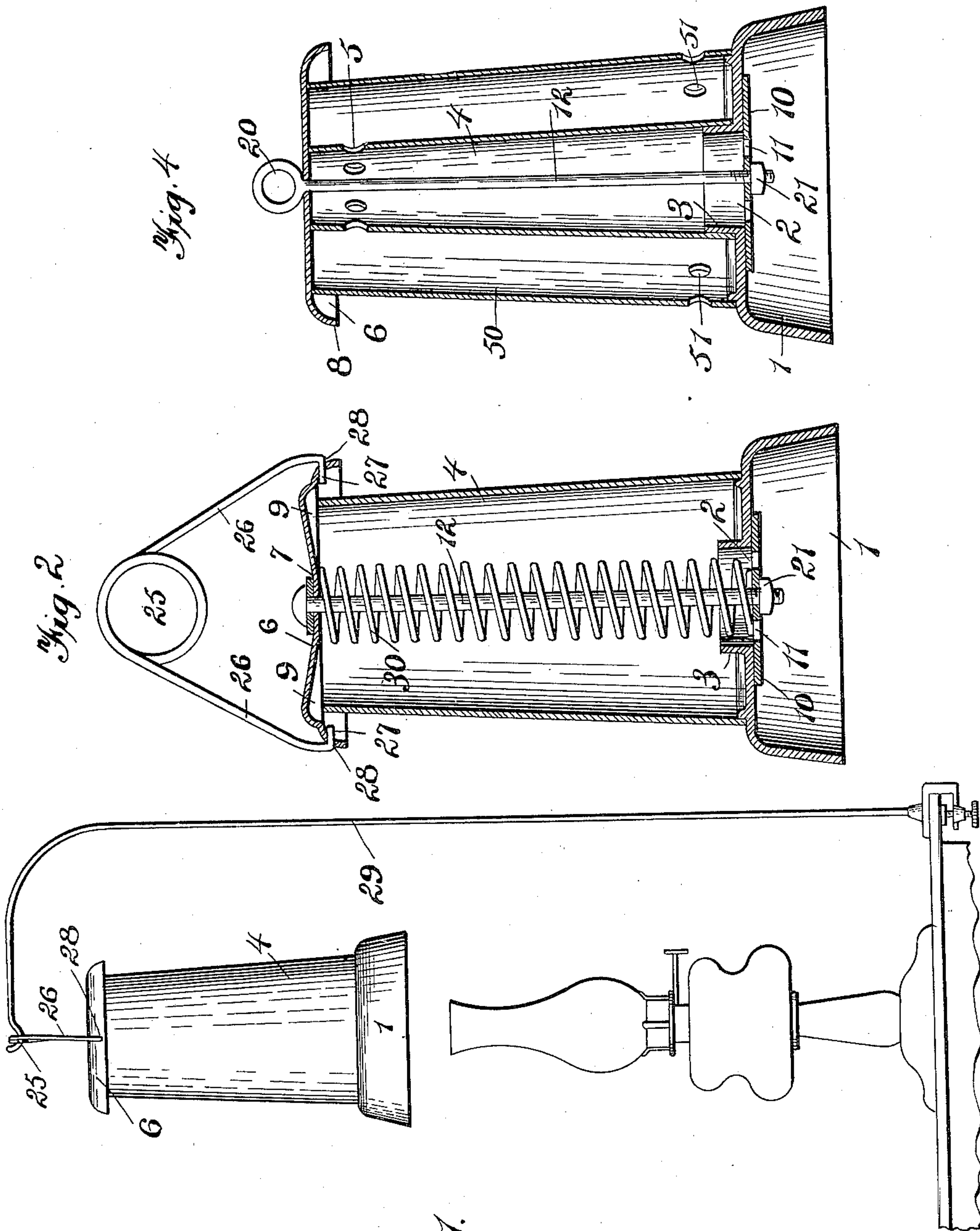
Patented June 26, 1900.

C. H. EVELAND.  
HEATING DRUM.

(Application filed Mar. 7, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:  
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*Fig. 1.*

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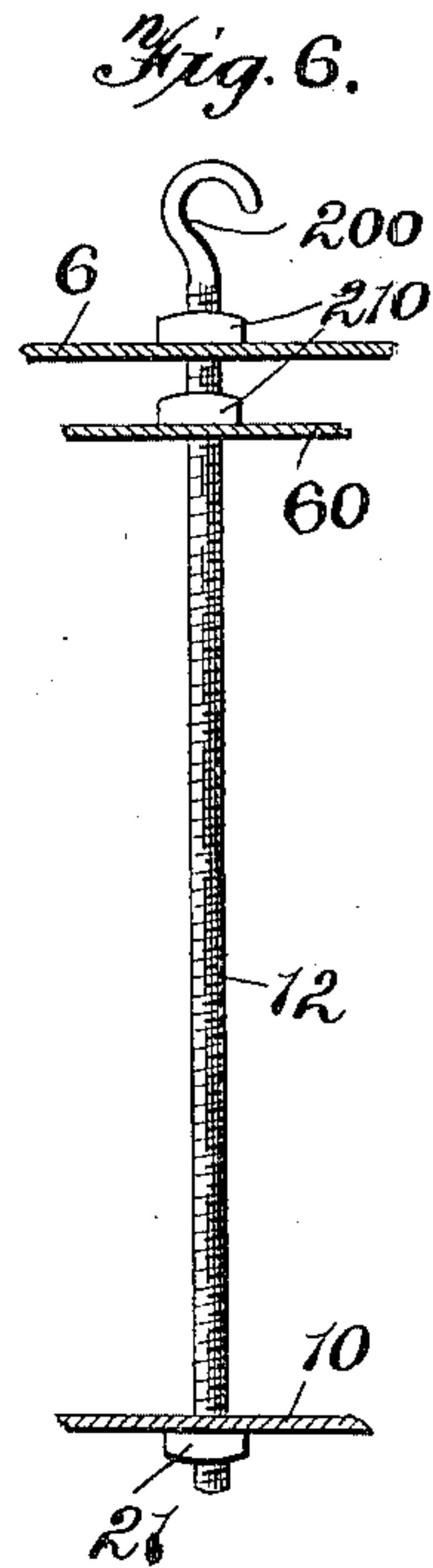
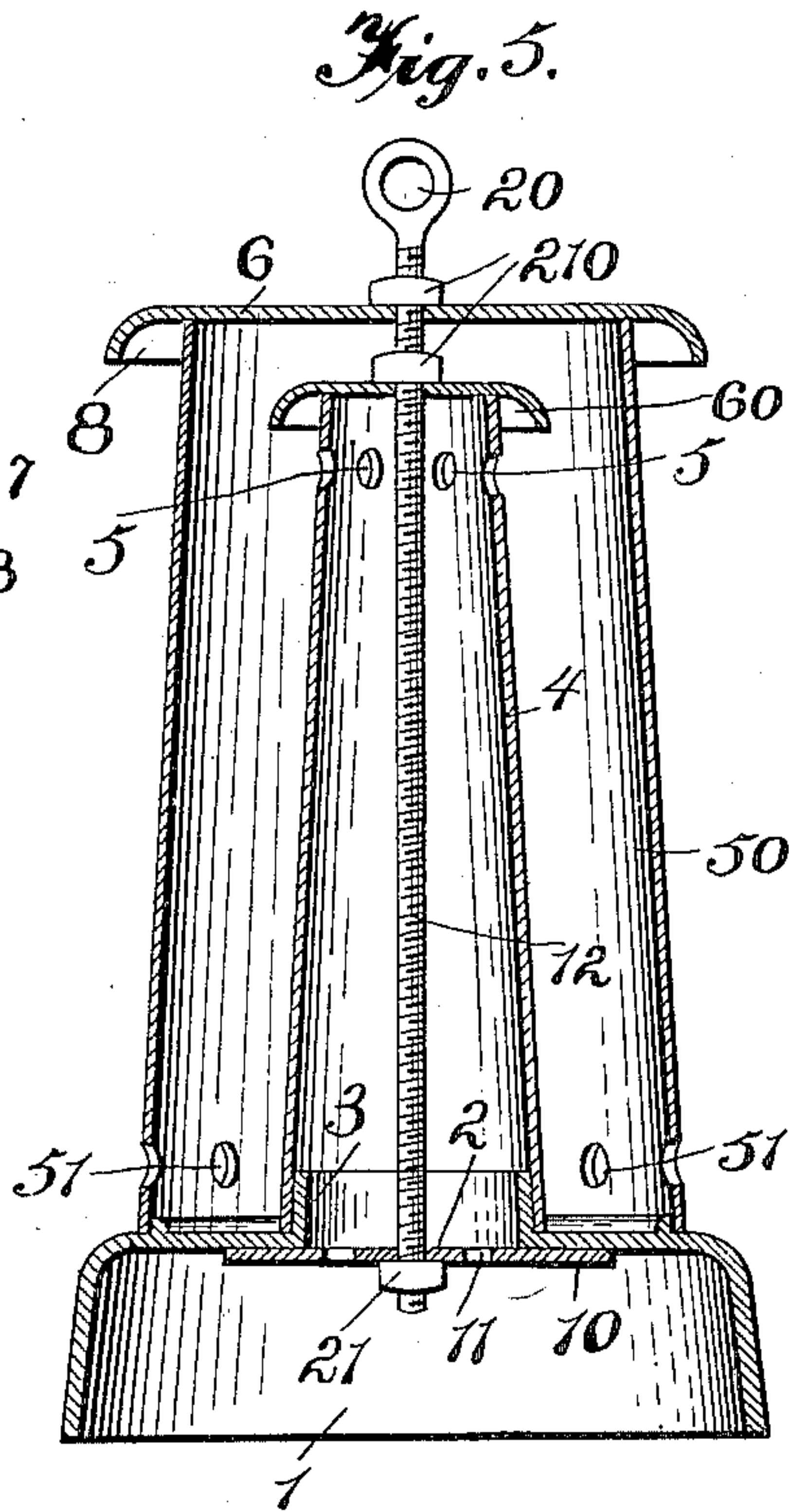
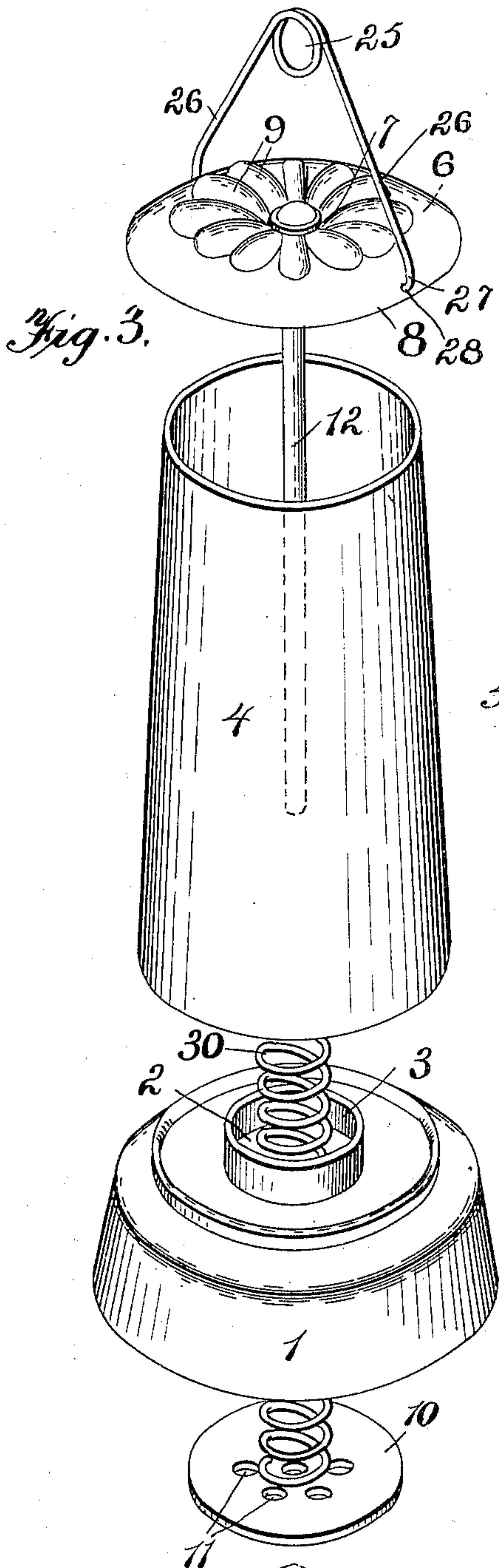
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# UNITED STATES PATENT OFFICE.

CHARLES H. EVELAND, OF PHILADELPHIA, PENNSYLVANIA.

## HEATING-DRUM.

SPECIFICATION forming part of Letters Patent No. 652,604, dated June 26, 1900.

Application filed March 7, 1900. Serial No. 7,679. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. EVELAND, a citizen of the United States, and a resident of Philadelphia, Philadelphia county, State of Pennsylvania, have invented certain new and useful Improvements in Heating-Drums; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with claims particularly specifying the novelty.

This invention relates to stoves and furnaces, and more especially to that class thereof known as "lamp-stoves;" and the object of the same is to produce an improved heating-drum adapted to be suspended over a lamp or gas-jet in such manner as not to interfere with the light given out by the same, but to the end that the heat rising from the flame will be caught by the drum and radiated for the purpose of warming the room.

The invention consists, essentially, in a base and cover connected by a bolt, which may form part of the supporting means, and a cylinder held between said base and cover by the bolt and preferably having inlet and outlet. In the following specification several modifications of and additions to this main idea are set forth, all as illustrated in the accompanying drawings, wherein—

Figure 1 is a general side elevation of my drum supported by a bracket above a lamp. Fig. 2 is a sectional view of the drum, showing a coil surrounding the bolt. Fig. 3 shows in perspective a detail of several of the parts disconnected. Fig. 4 is a section showing the use of a casing to surround the cylinder and omitting the coil. Fig. 5 is a section similar to Fig. 4, except that the cylinder is shorter than the casing and has a cover of its own. Fig. 6 is a detail of a bolt of slightly-modified construction.

In the said drawings the numeral 1 designates a base, which may well be of light cast-iron and whose body is concavo-convex, while its center is pierced with an opening 2, surrounded by an upright flange 3.

4 is the cylinder, which may well be of polished copper, brass, or other sheet metal, of a size at its lower end to fit around the flange and preferably tapering slightly toward its upper end.

6 is the cover, of a size to close said upper end of the cylinder, preferably depressed slightly at its center, as at 7, and also preferably having a surrounding depressed flange 8.

10 is the bottom, which may well be a plate of metal of a size to fit within the base and larger than the opening 2, so that the latter will be closed thereby.

12 is a bolt extending longitudinally through the cylinder 4 and connecting the cover 6 with the bottom 10. The latter is usually pierced with inlet-openings 11, whereby the heat rising from the flame and collected by the base passes upward into the cylinder. In some cases, as in Fig. 1, I provide no outlet-openings, and the heat is therefore forced to accumulate within the cylinder and radiate laterally therefrom, while the escaping products of combustion pass out certain of the openings 11. In some cases, as in Figs. 2 and 3, I make the cover corrugated, as indicated at 9, so that outlets therein are found extending from within the cylinder along beneath the cover and out under its flange 8. In some cases, as in Figs. 4 and 5, I pierce the body of the cylinder, near its upper end, with holes, forming outlets 5, and the cover is flat or so shaped as to close the upper extremity of the cylinder. Other specific inlets or outlets may be used without departing from the spirit of my invention.

To support this drum, numerous devices may be employed, and I have shown two in the accompanying drawings. The bolt 12 may be an eyebolt, with its eye 20 above the cover and its nut 21 beneath the bottom, as best seen in Fig. 4. As seen in Fig. 6, the eye could be replaced by a hook 200, and the shank of the bolt could be threaded to receive additional nuts 210, adapted for use in connection with Fig. 5, as explained below. If the parts were not intended to be removable, the bolt might be replaced by a rivet, and obviously there could be a plurality of these bolts or rivets. In Fig. 2 a spring-handle is shown, consisting of a wire coiled, as at 25, with its ends 26 extending downward and having their extremities 27 bent inward in the form of hooks removably engaging holes 28 in the cover, as seen in Figs. 2 and 3. This handle could be used simultaneously with the



eyebolt above described or with a rivet or other means for holding the cover and bottom rigidly connected. In Fig. 1 is shown one form of bracket 29, having a hook for supporting the drum. However, my device may be suspended in any suitable manner over the flame of a lamp or gas-jet. A coil 30, as of copper wire, may surround the bolt or rivet (or each of them) between the cover and the bottom, its function being to collect and retain to a certain extent the heat within the drum and to radiate it outward to the cylinder, which latter in turn radiates the heat outward into the room. By coiling this wire its expansion and contraction are permitted without the noise so often resulting in devices of this character. The bolt itself might also be of copper or other material which is a good conductor of heat. I do not wish to be limited to the specific material of which any part is composed.

In Figs. 4 and 5 is shown a casing 50, surrounding the cylinder and of such interior diameter as to leave a space between them. This casing preferably rests at its lower end upon the base 1 and is provided adjacent the same with outlet-openings 51, the inlets to said space between the casing and cylinder consisting of the outlets 5 of the latter. In Fig. 4 the upper end of the casing is clamped beneath the cover G, which is made sufficiently large for this purpose. In Fig. 5 there is a supplemental cover 60, standing above the cover 6 of the cylinder, which latter is here shorter than the casing, as shown, and the covers may be held upon their parts by the nuts 210 of Fig. 6 or in any other suitable way. In the use of my drum when provided with this casing the heat enters the inlet at the bottom of the cylinder, ascends within the same, and passes out its outlet whatever the form of the latter. Then entering the casing at its upper end it descends therein and passes out the outlets 51 at the lower end. It is obvious that a coil of conductive material may be employed in this connection, if desired, and it is also obvious that the specific form of support to be used herewith is susceptible of considerable variation.

What is claimed as new is—

1. A heating-drum comprising a concavo-convex base with a central opening, a flange on the convex side, a perforated bottom larger than said opening and closing it from the concave side, a cover, a cylinder extending from the base around said flange to the cover, outlets adjacent the latter, and a bolt extending throughout the cylinder and passing

through the bottom and cover, as and for the purpose set forth.

2. A heating-drum comprising a concavo-convex base with a central opening surrounded by a flange on the convex side, a perforated bottom closing said opening from the concave side, a cover, a cylinder extending from around said flange to the cover and having outlets adjacent the latter, connections between said bottom and cover extending throughout the cylinder, and supporting devices, all as and for the purpose set forth.

3. In a heating-drum, the combination with a base having a central opening surrounded by an upturned flange, a perforated bottom plate beneath the base and larger than said opening, a cylinder rising from the base around the flange and having outlets near its upper end, and supporting devices connected with said bottom and extending through the cylinder; of a covered casing surrounding the cylinder and resting at its lower end on the base, outlets therefrom near said lower end, and connections between its cover and said supporting devices, as and for the purpose set forth.

4. In a heating-drum, the combination with a base having a central opening, a perforated bottom plate beneath the base and larger than said opening, and a cylinder rising from the base and having outlets near its upper end; of a casing surrounding the cylinder and resting on the base, perforations in the casing near its lower end, a cover closing its upper end, and supporting devices extending from the plate throughout the cylinder and through the cover, as and for the purpose set forth.

5. In a heating-drum, the combination with a base having a central opening, a perforated bottom plate beneath the base and larger than said opening, a cylinder rising from the base and having outlets near its upper end, and a cover for said upper end; of a casing surrounding the cylinder and resting on the base, perforations in the casing near its lower end, a cover closing its upper end above that of the cylinder, and a bolt passing through both covers and the plate and having nuts adjacent all these parts, as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my signature this 3d day of March, A. D. 1900.

CHARLES H. EVELAND.

Witnesses:

JOHN J. GREENAN,  
HUGH A. GREENAN.