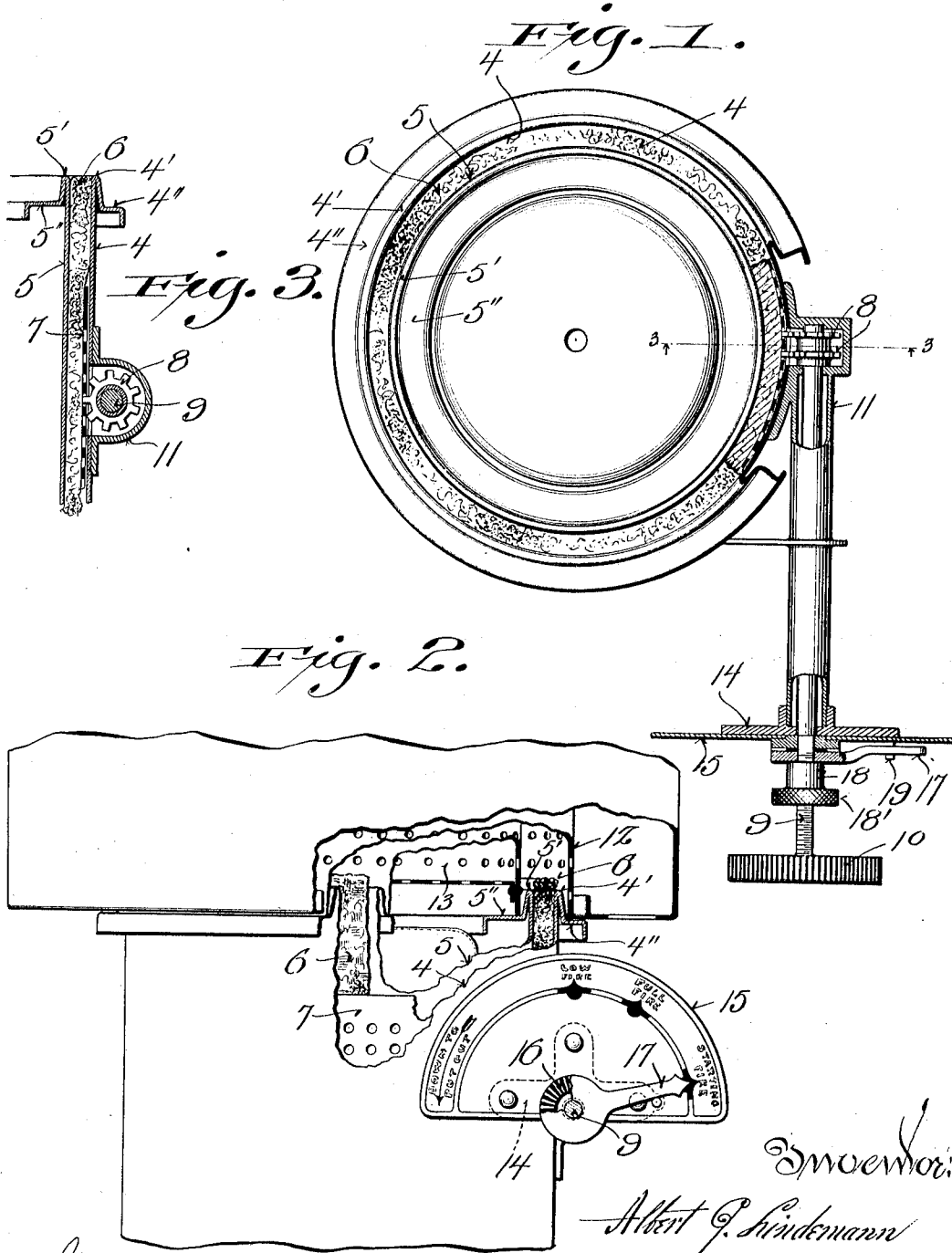


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OIL STOVE BURNER.
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1,041,111.

Patented Oct. 15, 1912.



Witnessed:
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UNITED STATES PATENT OFFICE.

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OIL-STOVE BURNER.

1,041,111.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ALBERT J. LINDEMANN, a citizen of the United States, and resident of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Oil-Stove Burners; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention consists in what is herein particularly set forth with reference to the accompanying drawings and pointed out in the claims of this specification, its object being to prevent smoking of oil stove burners of the species employing perforated combustion rings as shown.

Figure 1 of the drawings represents a plan view partly in section of the wick-holder of one of my improved oil-stove burners; Fig. 2, a front elevation of a portion of the burner partly in section, and Fig. 3, a sectional view of a fragment of said wick-holder element of the burner, this view being indicated by line 3—3 in Fig. 1.

Referring by numerals to the drawings, 4 indicates the outer shell of the wick-holder of my improved oil-stove burner, 5 the inner shell of the same, 6 the wick guided between said shells, 7 the perforated wick-binder, 8 the cog-wheels that mesh with said binder, 9 the stem on which said wheels are fastened, 10 the hand-wheel that is also fastened on said stem, and 11 the housing for the aforesaid wheels and stem, this housing being fastened to the shell 4 in register with an aperture in the same.

As thus far described the wick-holder is similar to others common in the art, but heretofore the construction of the upper ends of the wick-guide shells in oil-stove burners of the species shown, has been such that horizontal ledges of considerable area resulted in proximity to the igniting edge of the wick of each burner in opposite directions from said wick and flanges projected upward from the ledges. Carbon particles from the wick accumulate upon said ledges, of an ordinary wick-holder as aforesaid, where they are confined by the burner-rings or said flanges to become saturated with oil, and the mass in contact with the flame of the burning wick gives off smoke as well as a disagreeable odor to the detriment of the burner as a whole.

In my construction of wick-holder, the

upper flanging of its shells 4 and 5 is such, that thin edges 4' and 5' of these shells having outer taper elevation above the horizontal ledges 4'' and 5'' of said shells upon which the perforated rings 12 and 13 of the burner-drum are normally seated, said thin edges being in proximity to the igniting edge of the wick and the upper sides of the ledges clear of obstructions outward from said taper elevations. As a matter of detail the upper ends of the wick-holder shells are outwardly folded in a downward direction on an inclination, to thus form the tapers, then horizontally extended in the form of ledges, below the folds, and by preference finally turned downward at right-angles to said ledges.

As a result of the peculiar construction of the upper ends of the wick-holder shells, carbon particles from the burning wick fail to find lodgment in contact with said wick and the flame of the same, whereby emanations of smoke and odor from the lighted burner is avoided and less frequent cleaning of said burner required. It is also to be noted that as the outwardly tapered upper ends of the wick-holder shells are concentric, the concentricity of the perforated rings 12 and 13 of the burner-drum is insured when said rings are seated on the horizontal supporting ledges 4' and 5', therefor of the wick-holder in order to obtain the best results in oil-stove practice. The seating of the burner-drum rings results in the displacement of any carbon accumulations on the aforesaid ledges of the wick-holder shells 4 and 5, and said accumulations automatically find their way over the outer edges of said ledges.

Fast on the outer end of the housing 11 is a bracket 14, and a preferably semi-circular gage-plate 15 is secured to the bracket. Fast on the wick-wheel stem is a disk 16 having its outer side tangentially serrated, this disk being a section of a clutch, and said stem has its bearings in said housing and bracket. Loose on the wick-wheel stem in a pointer 17 having a clutch-hub matching the aforesaid-disk with which it engages, and a set-nut 18 on a screw-threaded portion of said stem, outward from the pointer, serves to hold said pointer in clutch-engagement with said disk, said nut being provided with a hand-wheel extension 18' to facilitate its manipulation. The gage-plate is preferably

provided with a front stop-pin 19 in the path of the pointer turning to the right, and an index-mark on said plate is radial to the pin, this mark being preferably designated by the words "Starting Fire" displayed on the aforesaid plate as herein shown.

At predetermined places on the gage-plate back of the mark aforesaid and preferably on the same are therewith, as herein shown, are other index-marks upon which to set the pointer, according to the state of fire desired after lighting the wick, and it is also preferable to respectively designate said other index-marks by the words "Low Fire" and "Full Fire" displayed on said plate as herein shown. Other information referring to manipulation of the wick may be displayed on the gage-plate if desirable.

In practice, the set-nut is run out on the wick-wheel stem to permit disengagement of the pointer from the clutch-section that is fast on said stem. The stem is then manipulated until the ignition end of the wick is on a level with the edges of the taper elevations of the wick-holder shell. This being done, the pointer is placed at the full-fire mark on the gage-plate and the set-nut tightened to again effect a clutch of said pointer with the wick-wheel stem, so that the two may be turned together with the wick-stem in either direction.

To elevate the wick for lighting, the wick-wheel stem is manipulated to place the pointer on starting fire mark where it is stopped by the pin in its path. After lighting of the wick, the aforesaid stem is again manipulated to place the pointer opposite the full or low fire mark on the gage-plate, whereby said wick is correspondingly lowered. To extinguish the wick, the same is turned down as far as it will go, this being customary practice. From time to time, the charred portion of the wick is removed and the above described operations with reference to said wick and the pointer repeated.

When the oil-stove burners of the species shown and as ordinarily constructed are left burning for a considerable length of time,

the accumulation of carbonized wick particles on the wick-holder, and the impossibility of seeing from the outside just where the wick is set, together with capillary attraction of the perforated rings in the burner-drum to draw up slight deposits of oil, and the extinguished wick being again lighted, a considerable smudge and odor results, but this I have successfully overcome by my improvements. These improvements, as above specified combine in the oil stove burner to avoid smoke and smell from the wick when first lighted or while the fire is maintained, the construction of the upper edges of the wick-holder shells being such as to throw off spent particles of said wick instead of retaining them between the perforated rings of the burner-drum, as in the ordinary construction, and on account of the provision for correctly setting and then regulating the aforesaid wick from the outside, trouble heretofore experienced in the operation of oil-stove burners of the species to which mine pertains is avoided.

I claim:

1. An oil-stove burner having a wick-holder comprising a pair of shells between which the wick is guided and which are outwardly folded in a downward direction on an inclination, and then horizontally extended to form ledges that constitute seats for the perforated rings of a burner-drum below the folds.

2. An oil-stove burner having a wick-holder comprising a pair of shells between which the wick is guided and which are outwardly folded in a downward direction on an inclination, then horizontally extended to form ledges and finally turned downward at right-angles to said ledges.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee in the county of Milwaukee and State of Wisconsin in the presence of two witnesses.

ALBERT J. LINDEMANN.

Witnesses:

JOHN S. BRENNAN,
GEO. W. YOUNG.