A. W. SANGSTER.

LAMP-BURNER.

No. 193,186. Patented July 17, 1877.

Figure 1.

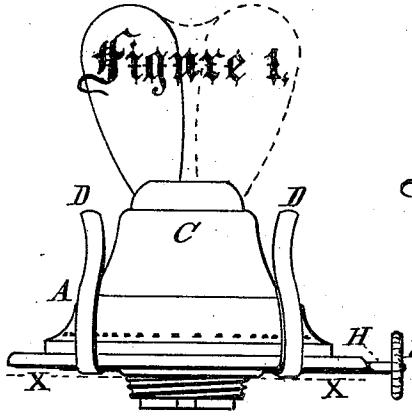


Figure 2.

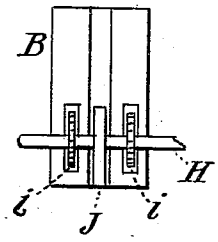


Figure 3.

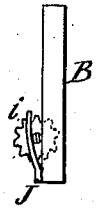


Figure 4.

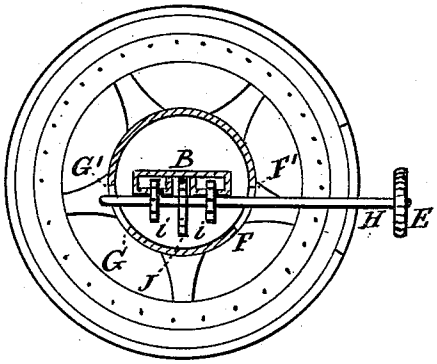


Figure 5.

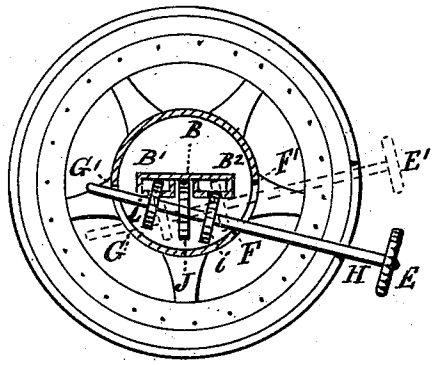


Figure 6.

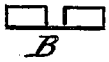


Figure 7.

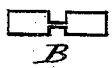
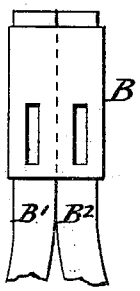


Figure 8.



Witnesses,

A. N. Samuels,

Inventor,

Amos W. Sangster.

By James Sangster

Atty.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

AMOS W. SANGSTER, OF BUFFALO, N. Y., ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES SANGSTER AND GEORGE H. DUNBAR, OF SAME PLACE.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **193,186**, dated July 17, 1877; application filed December 21, 1876.

To all whom it may concern:

Be it known that I, AMOS W. SANGSTER, of the city of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Lamp-Burners, which improvements are fully set forth in the following specification, reference being had to the accompanying drawings.

The object of this invention is to provide a ready means for diminishing the amount of light, and consequently the consumption of oil, without producing the unpleasant and unhealthful odor resulting from the lowering of the wick in an ordinary kerosene-oil burner, and also to afford the means for easily increasing the amount of light, when required, or for regulating the height of either side of the flame; and it consists in the combination of a single or divided wick-tube with a wick-adjusting device capable of being vibrated, so as to act upon and operate the wick at either one of the sides of the tube, or upon both sides of the same, at the same time, as will be more clearly hereinafter shown.

In said drawings, Figure 1 is a side elevation of a burner complete. Fig. 2 is a front view of a divided wick-tube; Fig. 3, a side elevation of the same, showing a spring for holding the wick-adjuster up to the tube. Fig. 4 represents a bottom view of the burner in section through line X X, Fig. 1. Fig. 5 is a similar view, showing the wick-adjuster in position for operating upon the wick at either side of the tube. Fig. 6 is a top view of the wick-tube; Fig. 7, a modification of the same, and Fig. 8 represents a side elevation of a single tube, showing two wicks arranged therein by dotted lines.

A represents the burner; B, the wick-tube, which may be made in the form of a single tube, as shown in Fig. 8, or with a partition, so as to divide it, as shown in Figs. 2, 6, and 7, which arrangement I prefer, as it separates the two wicks so as to admit air between them, and thereby make the combustion more perfect.

C is an ordinary deflector; D D, springs for holding the chimney in position. E represents the wick-operating device in position for operating the wick B^1, the dotted lines showing it in position for moving wick B^2, Fig. 5. The position of E for moving both wicks at once is shown in Fig. 4. It is allowed to vibrate, for the purposes mentioned, by elongating the holes F F′ G G′, through which the stem H passes, as shown in Figs. 4 and 5.

H is prevented from being drawn out of place by the ratchet-wheels *i i*, being arranged so that when one wheel is out from one opening in the wick-tube, the other passes in the next opening, and it is held up to the tube so as to cause the ratchet-wheels *i i* to press against the wick by means of the spring J. (Shown in Figs. 2, 3, 4, and 5.)

The operation of the invention is obvious. When it is used for a night-lamp, one wick is turned down, thereby bringing the flame to the form shown by the full line in Fig. 1, which, together with the dotted lines, shows its form, or nearly so, when both wicks are used.

In Fig. 8 I have shown a single wick-tube, having the two wicks B^1 B^2 fitted therein, and running close together; but in practice the tube having a partition in it appears to work better.

It will be readily seen that the shape of the flame may be made true on each side by this invention, and that but one-half of the oil is used when it is required for a night-lamp, while the wick is sufficiently high to prevent the bad odor resulting from too low a wick.

I claim as my invention—

1. In a lamp-burner, the wick-moving device E H *i i*, arranged to vibrate substantially as specified, in combination with the wick-tube B, for the purpose of moving either wick separately, as set forth.

2. The combination of said wick-moving device with the spring J and tube B, for the purpose of moving either wick separately or both together, substantially as described.

AMOS W. SANGSTER.

Witnesses:
JAMES SANGSTER,
F. P. STIKER.