O. MAYO.
Lamp-Wick.

No. 202,358. Patented April 16, 1878.

Fig. 1.

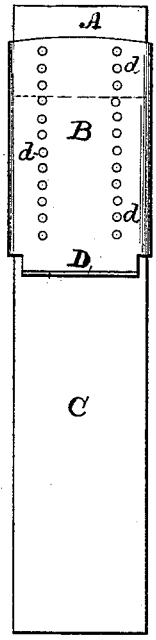



Fig. 2.

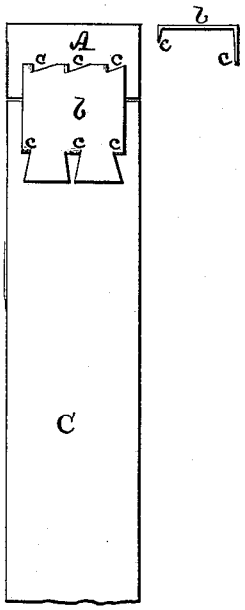



Fig. 3.

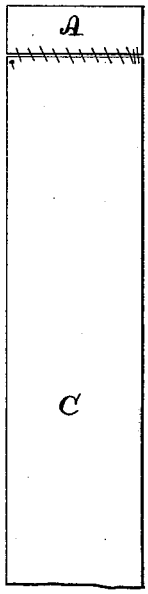
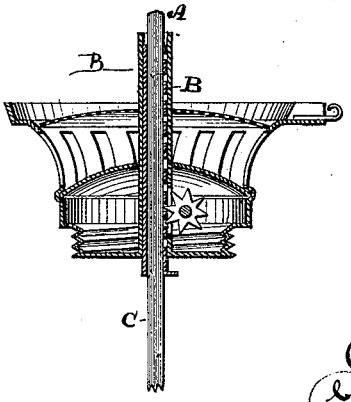



Fig. 4.




Witnesses:
P. Hannay
D. G. Stuart

Inventor:
Oscar Mayo
by A. McCallum
Atty.

# UNITED STATES PATENT OFFICE.

OSCAR MAYO, OF EVANSTON, ILLINOIS.

## IMPROVEMENT IN LAMP-WICKS.

Specification forming part of Letters Patent No. **202,358**, dated April 16, 1878; application filed January 4, 1878.

*To all whom it may concern:*

Be it known that I, OSCAR MAYO, of the town of Evanston, in the county of Cook and State of Illinois, have made new and useful Improvements in Wicks for Oil Lamps, Stoves, &c., of which the following, taken in connection with the accompanying drawings, is a specification.

My improvements relate to wicks which are in two contiguous sections, the one more or less indestructible, and the other a permanent conductor of oil thereto.

My object herein is to obtain a wick or tip of a trifling cost that shall be comparatively incombustible and indestructible, with certain convenient tubes and attachments for operating same, as will more fully hereinafter appear.

My invention consists in the use of paper wicks or tips prepared by giving them a bath in a strong solution of salt, drying, and giving them a second bath in a full solution of equal parts of the phosphate and tungstate of soda, (which process is made the subject of a separate application by me for Letters Patent,) which paper tips of the wicks, in two sections, are attached, by a thin metal plate having teeth along its upper and lower edge, to ordinary cotton, wool, or felt wicks, such as are ordinarily used for conveying the oil from the fonts to the tips.

Referring to the drawings, Figure 1 shows the paper tip A attached to the wick B by the inside metal tube B, having perforations *d d d*, the tip being made (as I prefer, for the purposes of more perfect combustion) of two pieces of separately-prepared paper, each of the width and half the thickness of the wick-tube to be fitted, which inside tube is of the same length as the outside tube, in which it operates, and has a shoulder, D, which prevents its being raised above the outside tube. By this arrangement of tubes—the inner one moving with the wick, and the other one remaining stationary—before the flame is extinguished, the wick is lowered inside of the outside tube, which prevents the wick from discharging the oil which it holds when not in use upon the outside of the burner, which arrangement adds materially to the safety of oil-burners. I do not restrict myself in this arrangement of tubes to their combustion of wicks of two sections.

Fig. 2 shows the paper tip A attached to the wick C by a thin metal plate, *b*, having teeth *c c c* along its upper and lower edges, fastened, respectively, into the tip and the wick, the upper ones being shorter than the thickness of the tip, so that the tip can be easily disengaged and replaced, the lower one being longer than the thickness of the wick, and clinched on its other side. By this arrangement for attaching the two sections of the wick, it can be prepared and sold in market for the ordinary sizes of burners now in general use, without making a special burner having reference to special-sized tubes and caps for this tip-wick. It is evident that the wick and tip can be sewed together at their ends, as shown by Fig. 3, or attached by any of the other well-known means.

Fig. 4 shows an ordinary lamp-burner with the chimney and cap removed, having the paper tip and the wick applied, as shown in Fig. 1.

I prepare the same for Argand burners by pressing the paper before drying after each bath on the form of the inside screw of the double wick-tube of the Argand burner, the wick thus made retaining its shape, and, in practical use, not tearing itself away from its attachment by raising or lowering, as does the ordinary wick oftentimes in Argand burners.

No other preparation or change in the above paper tip or wick is necessary to adapt it to a stove or other apparatus for producing light or heat from oil or other burning-fluid than to vary the size and shape of the prepared paper.

I am aware that prepared asbestus and other materials have been heretofore used for oil wick tips.

Some of the special advantages of the paper wick or tip above described are, that it will give a larger, whiter, and purer flame than the other materials mentioned, (the tips being of the same size;) is very much more economical; will last as long or longer; being more pliable, is easier of attachment and adjustment; and, like the other materials, enables the lamp, stove, &c., to be used for an indefi-

nite period without the trouble, annoyance, and expense of trimming the wicks daily and changing them every few days.

I claim—

A sectional lamp-wick, the upper section made of paper prepared as described, and the lower section made of other fibrous material, the parts being united by plate *b*, having the fastening-points *c*, substantially as and for the purpose set forth.

OSCAR MAYO.

Witnesses:
PERCY R. MARLING,
D. G. STUART.