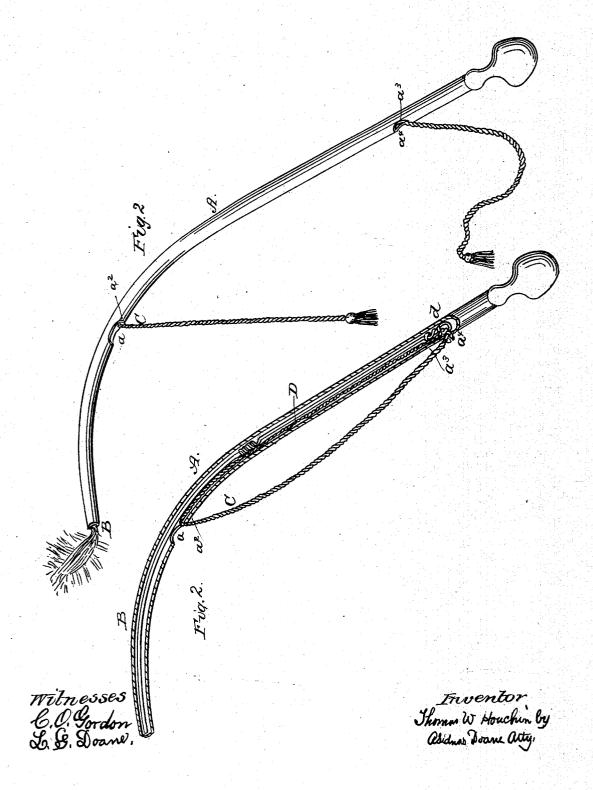
## T. W. HOUCHIN.

## Instrument for Lighting Gas.

No. 47,207.

Patented April 11, 1865.



## UNITED STATES PATENT OFFICE.

THOMAS W. HOUCHIN, OF MORRISANIA, NEW YORK.

## INSTRUMENT FOR LIGHTING GAS.

Specification forming part of Letters Patent No. 47,207, dated April 11, 1865.

To all whom it may concern:
Be it known that I, THOMAS W. HOUCHIN, of Morrisania, in the county of Westchester and State of New York, have invented, made, and applied to use a new and useful Instrument for Lighting Gas; and I do declare the following to be a full, clear, and correct description of the same, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, in which-

Figure 1 is a view of my improved instrument for lighting gas; Fig. 2, a sectional

view of the same.

In the drawings like parts of the invention are indicated by the same letters of reference.

The nature of my invention consists in the construction and operation of an improved instrumentfor lighting gas, as hereinafter fully described.

To enable those skilled in the arts to make and use my invention, I will speak of the

A shows a tube, formed of metal, or part wood and part metal, intended for the reception of the wick or taper B. While in the model sent herewith this tube has its upper end bent, the tube may be made perfectly straight, if necessary. This tube A is provided near its upper end with the opening a, formed by cutting away a portion of the metal and turning over a small portion of the same, as at  $a^2$ , to form a lip upon which the same, as at a, to form a mp apon when the cord or string C employed travels when the instrument is in use. Near the lower end of the tube A is the opening  $a^3$ , formed in a similar manner, as also the lip  $a^4$ .

B shows the wick or taper inserted and

held in the tube A.

D shows the "attachment," (as I term it,) to which the taper or wick B is attached, as well as the string or cord C. This attachment is formed of a piece of wire, having one end (the upper one) wound spirally or provided with a tube, for the purpose of allowing the lower end of the wick or taper B to

be inserted and held firmly in the same, while its lower end is provided with the eye d, to which the ends of the cord or string C are attached.

C shows the cord or string employed for the purpose of elevating or depressing the wick or taper B as required. The ends of this string or cord C are attached to the eye of the attachment D, thus rendering the cord cr string C an endless one, or two cords or strings may be used for the same purpose, as clearly

shown in Fig. 1.

The various parts of my improved instrument being thus constructed, the lower end of the wick or taper B is inserted or attached firmly to the spiral end of the attachment D, inserted in the tube A. The cord or string C is then inserted within the tube A, passing over the lips  $a^2$  and  $a^4$ , and having its ends attached to the eye d in the attachment D. The wick or taper being held firmly to the upper end of the attachment and the string or cord being attached to the lower end of the same, the wick or taper may be raised or lowered, as desired.

When desired, the lips upon the tube may be dispensed with and rollers or grooved pulleys may be employed instead for the cord to

The taper or wick, having been elevated so as to project beyond the mouth of the tube, is lighted and is used to light gas more readily, conveniently, and expeditiously than in the usual way.

What I claim as my invention, and desire

to secure by Letters Patent, is-

In combination with the tube A, the use cr employment of the wick or taper B, cord or string C, and attachment D, when the same shall be constructed and combined substantially as shown, for the purpose specified.

THOS. W. HOUCHIN.

In presence of— A. SIDNEY DOANE, C. O. GORDON.