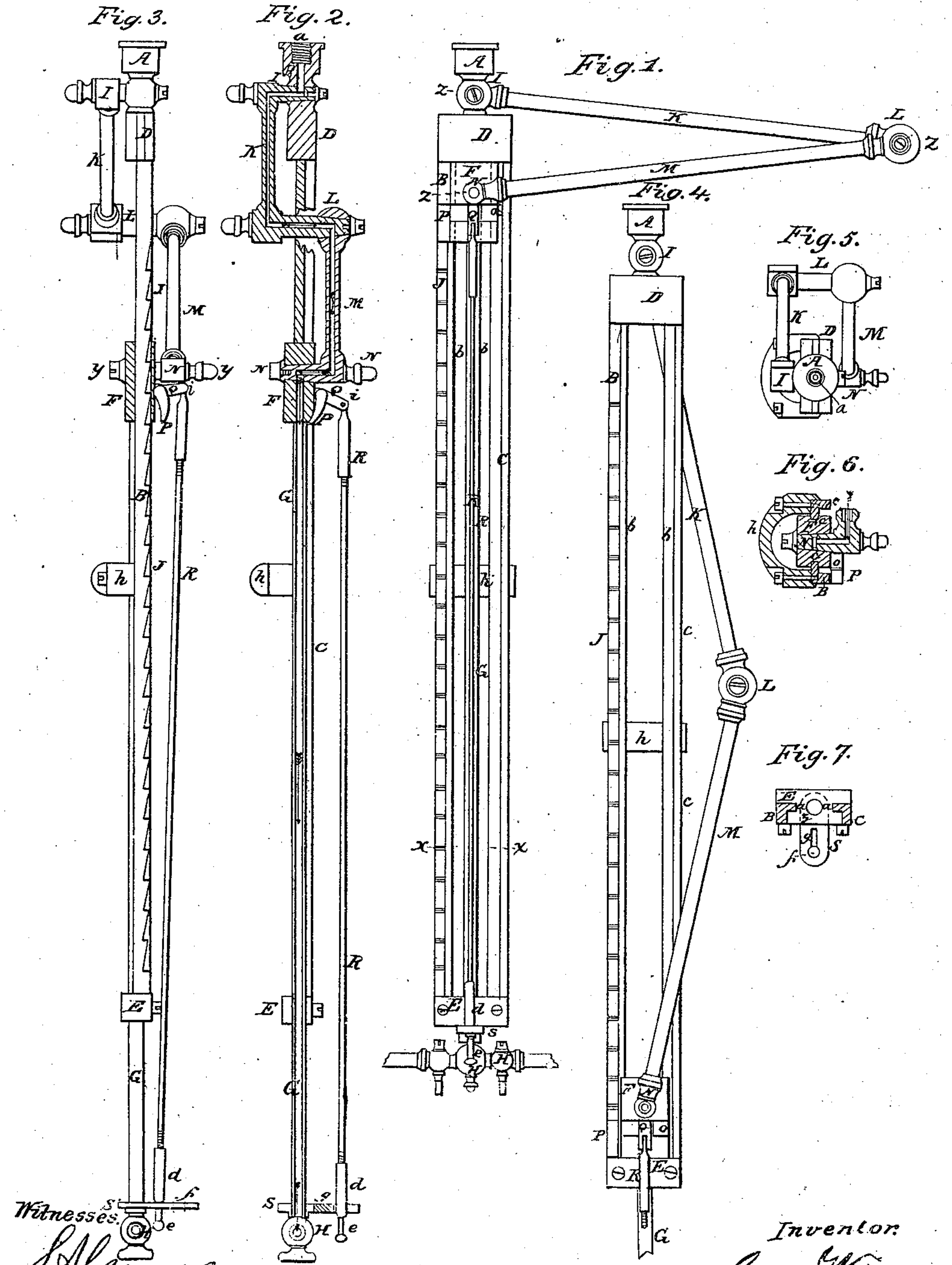
G. Warner,

Drop Light.

No. 106,895. Patented Aug. 30, 1870.



Witnesses.

S. Alexander

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GEORGE WARNER, OF DES MOINES, IOWA.

Letters Patent No. 106,895, *dated August* 30, 1870; *antedated August* 24, 1870.

IMPROVEMENT IN EXTENSIBLE GAS-PENDANTS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, GEORGE WARNER, of Des Moines, in the county of Polk and State of Iowa, have invented a new and improved Extendible Gas-Pendant, to be used for lighting purposes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a descriptive front view of my invention.

Figure 2, a transverse vertical section, taken in the line *z z*, fig. 1.

Figure 3, a longitudinal side view of the same.

Figure 4, a front elevation of a portion of the same.

Figure 5, a top view of the same.

Figure 6, a horizontal section of a portion of the same, taken in the line *y y*, fig. 5.

Figure 7, a horizontal section of a portion of the same, taken in the line *x x*, fig. 1.

This invention relates to a new and improved gas-pendant, which may be lowered and raised, or securely held at any desired height, and not liable to leak gas, or any of its offensive deposits.

A represents a socket, having a screw, *a*, to connect it with a drop-pipe to receive the gas.

B C D E is a vertical rectangular frame, having parallel guides, *b b*, which guide a rectangular slide, F, provided with vertical grooves, *c c*, fig. 6, to slide in up and down.

G is a vertical tube, the upper end of which is attached to the lower side of the slide F, and guided by the hole *z*, fig. 7, in the transverse bar E, the lower end of G being connected to the center H, which supports the arms for the burners.

Between the transverse bar D and the socket A, there is a horizontal pivot-joint, I, to which is attached, on the rear side of the frame, a tube, K, which is also connected by a similar joint, L, to the tube M and the joint N, which latter enter the slide F on the front side.

The joints I, L, and N, the slide F and socket A, being provided with the necessary openings, as shown in section, fig. 2, it forms one continuous passage for the gas from its entrance at *a* to the center H, the tubes K and M, moving at the joints I, L, and N, fold up, as shown in fig. 1, or can be extended, as shown in fig. 4.

There is supported, on the front side of the slide F, a horizontal shaft, O, to which is attached the pawl P, which catches in the vertical ratch J, on the frame at B. A lever, Q, is also attached to the shaft O, to which is suspended, by the pivot *i*, the connecting-rod R, with the cylindrical socket *d*, and the catch-pin *e*. A semicircular bar, *h*, is attached to the rear side of the frame, to strengthen the guides *b b*. Near the lower end of the tube G, a bar, S, fig. 7, is attached, having a hole, *f*, for the socket *d* to fall in, and a slot, *g*, to receive the catch-pin *e*, the whole being constructed of metal.

The operation is as follows:

Supposing the pendant to be connected by the socket A to the drop-pipe coming through the ceiling, the pendant being in the position shown in fig. 1, the slide being at the top of the guides *b b*, the jointed tubes K and M folded up, with the pawl P resting in the top notch of the ratch J. The operator, now, to bring the lights lower down, pushes up the rod R by the pin *e*, which latter falls in the slot *g*, allowing the bottom or shoulders of the socket *d* to rest on the bar S, as shown in fig. 3. The pawl P being now held clear of the ratch J, the lights may now be lowered to any desired point within the limits of the guides *b b*, and securely held by withdrawing the catch-pin *e*, which allows the pawl P to fall into the ratch J, as shown in fig. 2. The lights can now be raised with or without removing the catch-pin *e*. To lower them again the first operation must be repeated.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The combination with the frame B C D E, the guides *b b* and *c*, and socket A, the lowering and raising device composed of the slide F and tube G, the tubes K and M, with their pivot joints I, L, and N connecting with the socket A by the joint I, and by the joint N with the slide F, tube G, and center H.

Also, the device for holding the slide at various heights, composed of the ratch J on the frame B C D E, the pawl P, and shaft O, on slide F, the lever Q, with rod R, socket *d*, and catch-pin *e*, and slotted bar S, attached to tube G, all arranged to operate in the manner substantially as and for the purpose set forth.

The above specification of my invention signed by me this 11th day of February, 1870.

GEORGE WARNER.

Witnesses:

L. A. CRANE,

C. P. HOLMES.