

(No Model.)

2 Sheets—Sheet 1.

A. P. STORRS.
GAS LAMP.

No. 575,914.

Patented Jan. 26, 1897.

Fig-1-

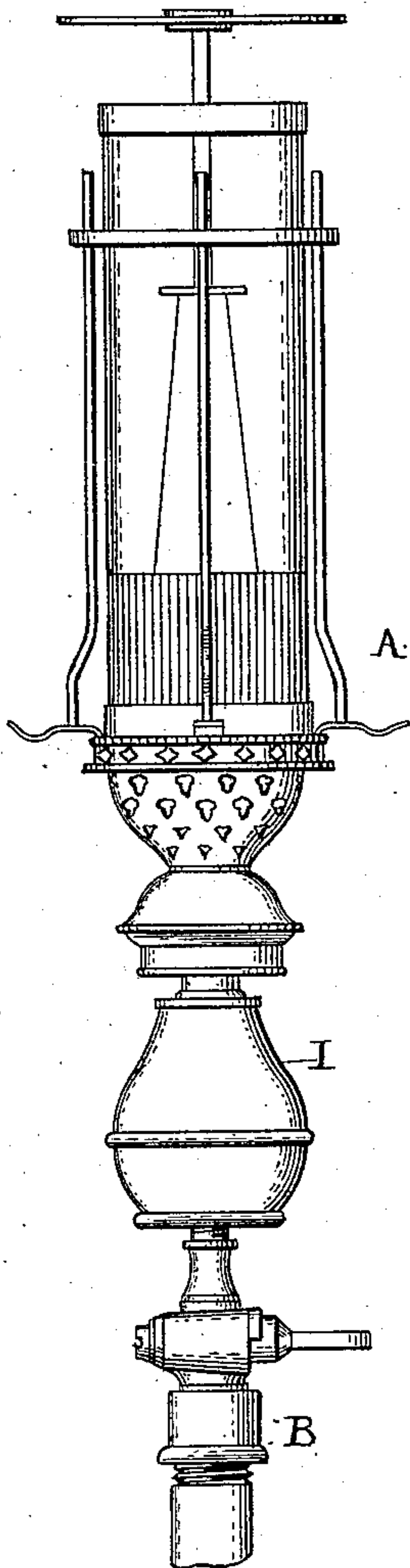
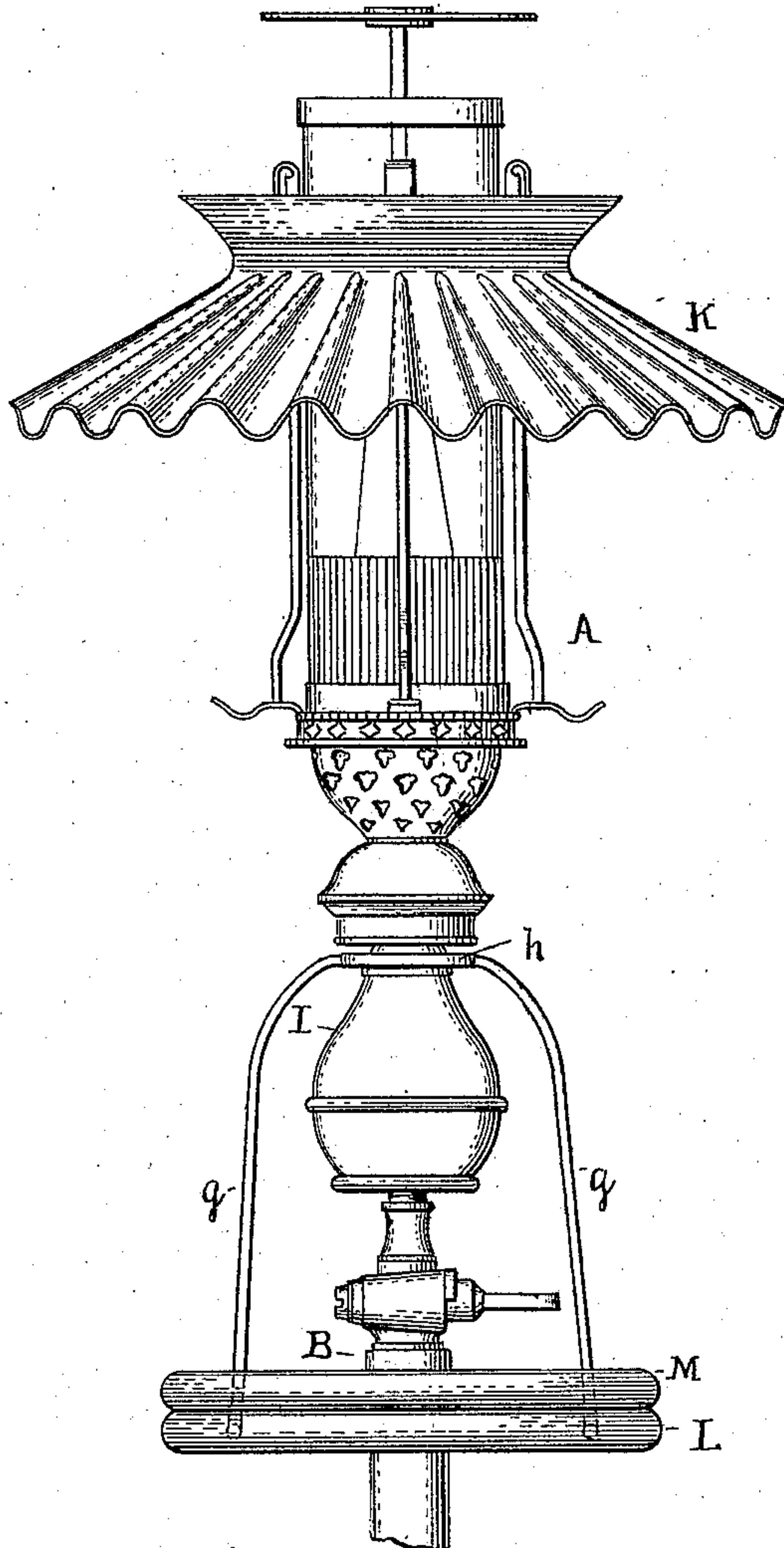


Fig-2-



Witnesses
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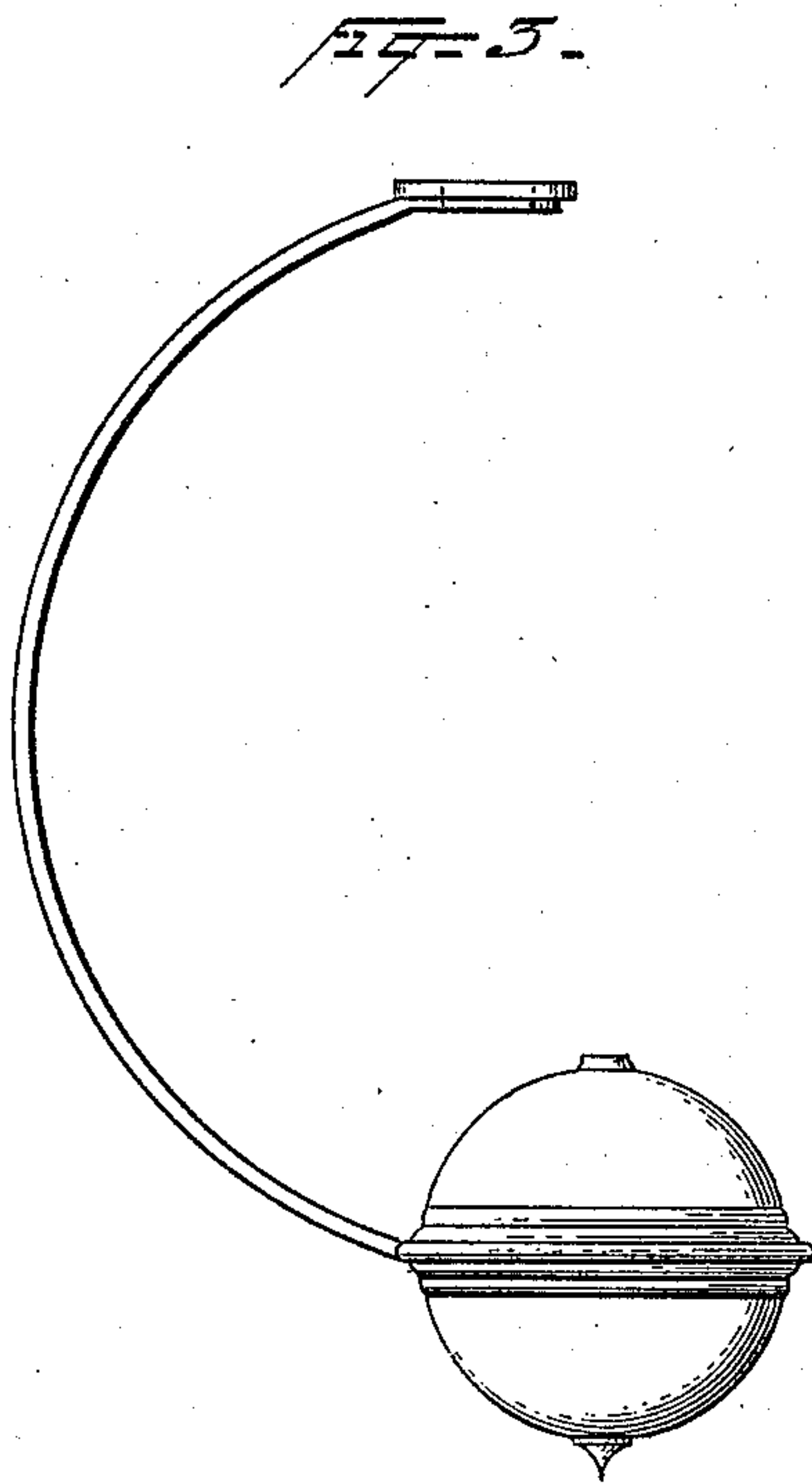
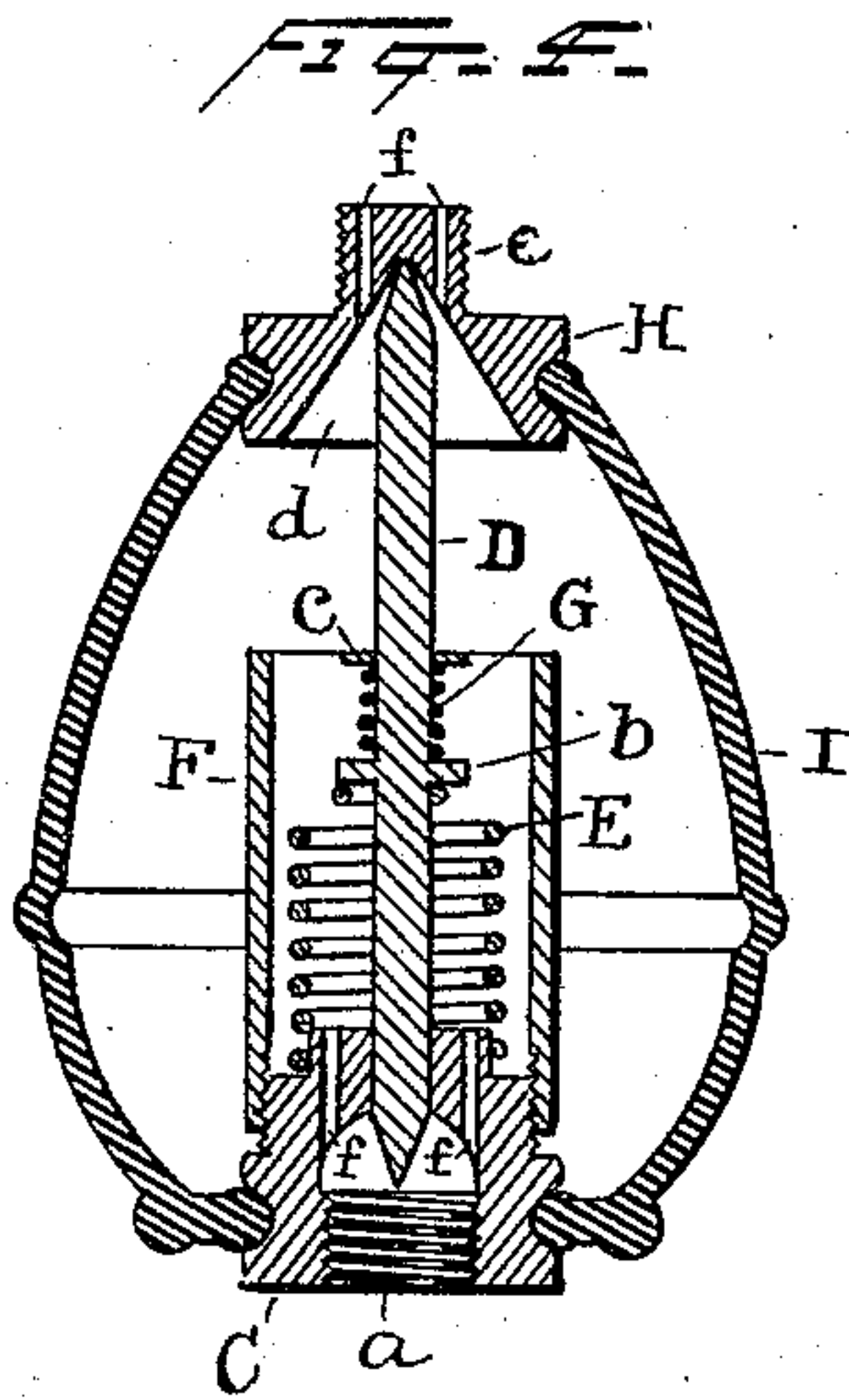
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2 Sheets—Sheet 2.

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Witnesses
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John A. Taylor.

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By his Attorneys
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UNITED STATES PATENT OFFICE.

AARON P. STORRS, OF OWEGO, NEW YORK.

GAS-LAMP.

SPECIFICATION forming part of Letters Patent No. 575,914, dated January 26, 1897.

Application filed June 15, 1896. Serial No. 595,515. (No model.)

To all whom it may concern:

Be it known that I, AARON P. STORRS, a citizen of the United States, residing at Owego, in the county of Tioga and State of New York, have invented a certain new and useful Improvement in Gas-Lamps, of which the following is a specification.

The object I have in view is to produce simple and effective means for supporting gas-burners having illuminating-mantles, such as the Welsbach lamp, which will prevent injury to the illuminating-mantle by the shocks and vibrations to which the lamp may be subjected in use.

In carrying out my invention I introduce between the burner and the nipple of a pillar-cock, bracket, or chandelier-arm upon which the burner is mounted a guided spring-support capable of vertical motion under spring-tension, so as to cushion the effects of jars in a vertical direction, and upon this support is mounted a rocking head with which the burner is connected, which rocking head permits of a limited lateral movement of the burner. A rubber bulb incloses the supporting parts, making a gas-tight connection with the base of the support and with the rocking head, and permits of the vertical and lateral movements without escape of the gas. This rubber bulb also resists the rocking movement of the head by a spring action which tends to maintain the burner in a vertical position. When the burner is provided with a shade or is in its construction so heavy that the rubber bulb will not normally maintain the vertical position of the burner, a suitable counterweight is attached to the rocking head or to the burner by arms, which maintain the counterweight below the center of gravity, so that the weight will act to maintain the vertical position of the burner.

In the accompanying drawings, Figure 1 is an elevation of a gas-lamp embodying my improvement without the counterweight. Fig. 2 is a similar view showing the employment of the counterweight. Fig. 3 is an elevation illustrating the different form of counterweight, especially useful when the burner is mounted on a bracket or on a chandelier-arm; and Fig. 4 is a central vertical section, full size, through the flexible support.

A is a Welsbach or similar burner provided

with the fragile illuminating-mantle, as will be understood.

B is a pillar-cock. Between the burner and the pillar-cock is located the yielding support of my invention.

C is the base-piece of the support, having a screw-threaded opening *a*, which screws upon the nipple of the pillar-cock. Passing centrally through the top of this base-piece and guided therein is a spindle D, which is supported on a spring E, resting on a shoulder on the base C, the support of the spindle on the spring being by means of a shoulder *b*.

F is a sleeve surrounding the spindle D and spring E and engaging a screw-thread on the base C. The sleeve F has a cross-piece *c* at its top to limit the upward movement of the spindle D and to guide it vertically, and between this cross-piece *c* and the shoulder *b* on the spindle is located a spring G. The connection of the sleeve F with the base C by a screw-thread permits of the vertical adjustment of the sleeve F, so as to vary somewhat the tension upon the springs E and G.

H is a rocking head having a conical seat *d* on its under side and resting upon the pointed upper end of the spindle D, so that it can rock thereon to a limited extent. The head H is provided with a nipple *e*, which is screw-threaded to receive the base of the burner. Gasways *f* are formed through the base C and the head H to permit the flow of gas to the burner. I is an elastic rubber bulb, the open ends of which are stretched over the base C and the head H and engage with grooves in those parts, so as to form a gas-tight connection therewith.

The burner being mounted upon the head H, it will be seen that the support is yielding in a vertical direction and is also capable of rocking laterally. Where the burner is not heavy, the elastic bulb I will be sufficient to maintain the burner normally in a central position. When, however, the burner is heavy or it is provided with a shade K, as in Fig. 2, a counterweight is required to maintain the vertical position of the burner. For this purpose I may employ a ring L, connected by wires or arms *g* with a small ring or washer *h*, which fits over the nipple *e* of the rocking head H and is clamped between that head and the base of the burner. The weight L is by this

arrangement supported below the center of gravity and tends to maintain the burner in a vertical position. One or more additional rings M may be slipped over the wires *g* and will rest upon the weighted ring L, if a greater weight than that furnished by the ring L is required. For brackets and chandelier-arms a weight supported by a single curved arm, as shown in Fig. 3, may be employed.

10 What I claim is—

1. The combination with a gas-burner, of a yielding spring-support and an inclosing elastic bulb, substantially as set forth.

15 2. The combination with a gas-burner, of a guided yielding spring-support, and an inclosing elastic bulb, substantially as set forth.

20 3. In a gas-lamp, a yielding spring-support in combination with a rocking head upon which the burner is mounted, substantially as set forth.

4. In a gas-lamp, the combination with a spring-support guided so as to be capable only of a vertical movement, a rocking head connecting such support with the burner, and an inclosing elastic bulb, substantially as set forth. 25

5. In a gas-lamp, the combination with the inclosing elastic bulb I, of the base C, guided spring-spindle D, and the adjustable sleeve F, substantially as set forth. 30

6. In a gas-lamp, the combination with the elastic bulb I of the base C, spindle D, springs *d g*, sleeve F, and rocking head H, substantially as set forth.

This specification signed and witnessed this 12th day of June, 1896. 35

AARON P. STORRS.

Witnesses:

EUGENE CONRAN,
GEORGE P. DYER.