2 Sheets—Sheet 1.

G. BOHNER.

Extension-Chandelier.

No. 216,018. Patented June 3, 1879.

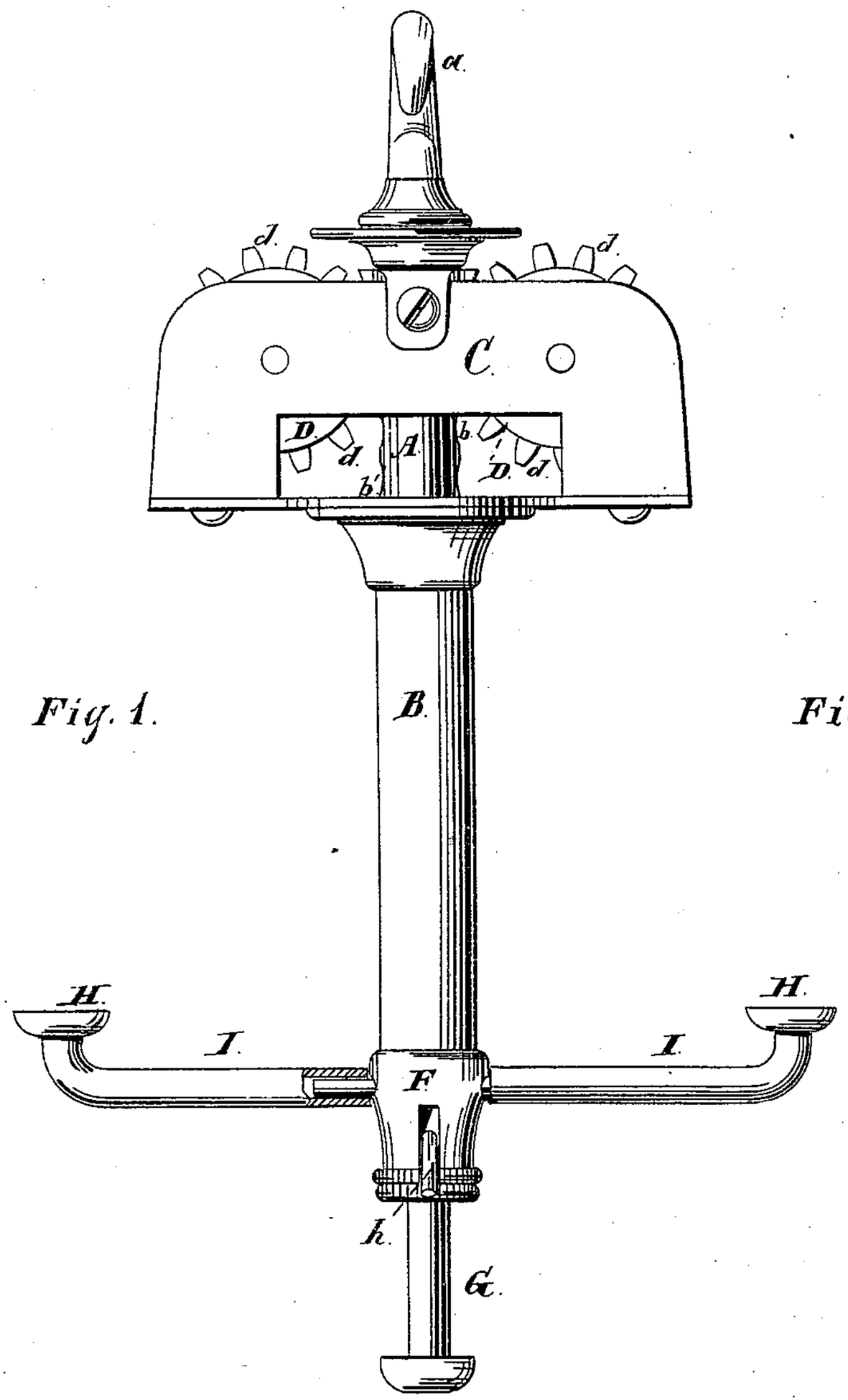

Fig. 1.

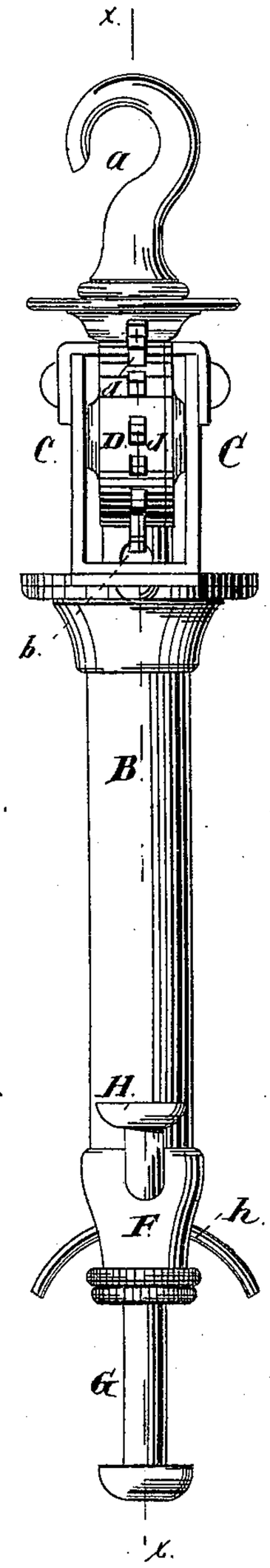

Fig 2.

Witnesses:

C. W. Bond.

E. A. Tisch.

Inventor:

George Bohner

2 Sheets—Sheet 2.

G. BOHNER.

Extension-Chandelier.

No. 216,018. Patented June 3, 1879.

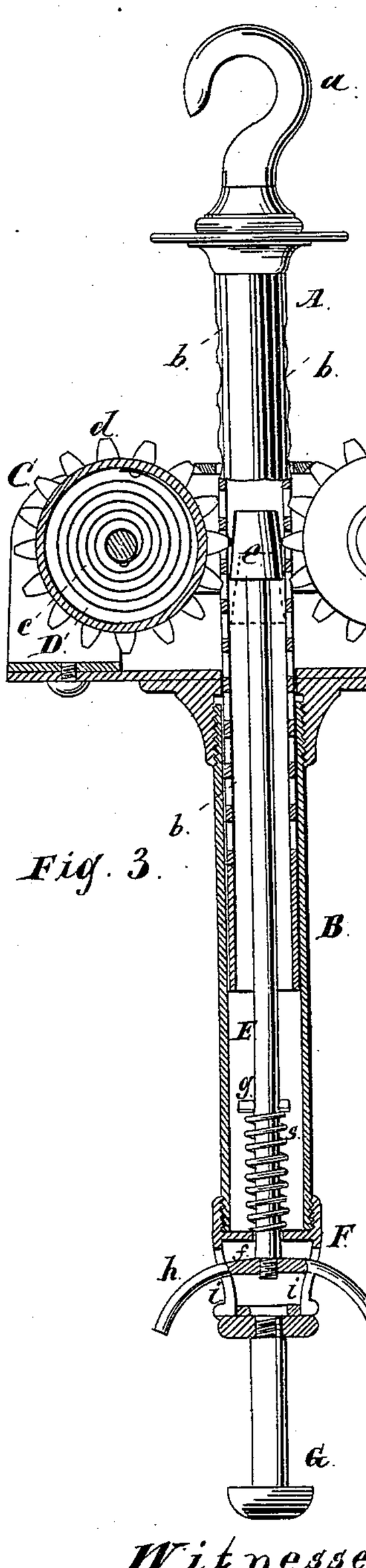

Fig. 3.

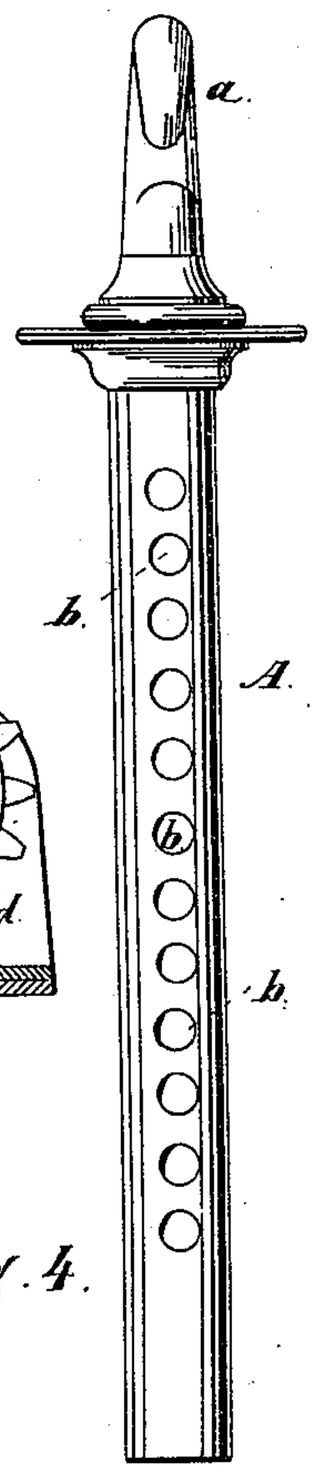

Fig. 4.

Fig. 5.

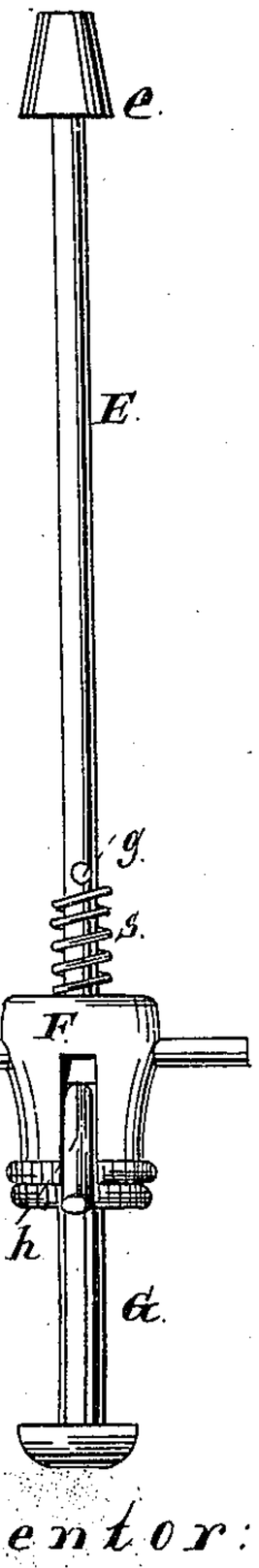

Fig. 6.

Witnesses:
C. W. Bond-
Ed. Hurst

Inventor:
George Bohner

UNITED STATES PATENT OFFICE.

GEORGE BOHNER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN EXTENSION-CHANDELIERS.

Specification forming part of Letters Patent No. **216,018**, dated June 3, 1879; application filed February 19, 1879.

To all whom it may concern:

Be it known that I, GEORGE BOHNER, of Chicago, Cook county, State of Illinois, have invented a new and useful Improvement in Extension-Chandeliers, of which the following is a full description, reference being had to accompanying drawings, in which—

Figure 1 is an elevation, (front;) Fig. 2, a side elevation; Fig. 3, a section at line *x* of Fig. 2. Figs. 4, 5, and 6 are details.

This invention relates to devices by the use of which the lamps of a chandelier can be easily raised and lowered, and held in any desired position, as hereinafter fully described and specifically claimed.

In the drawings, A is a stationary metal tube. At its upper end is a hook, *a*, by means of which it can be suspended from the ceiling or other suitable place. *b* are holes in two sides of this tube A, at uniform distances apart. B is another metal tube, which moves up and down outside of the tube A. C is a head, permanently secured to the upper end of the tube B, but so as not to interfere with the movement of this tube B. D D are two barrels, which rotate on pins supported in the head C. Within each barrel is a helical spring, *c*, arranged so that it will wind up when the chandelier is drawn down. *d* are cogs or teeth on the periphery of each barrel D, arranged to engage with the holes *b* in A. These teeth or cogs extend into the interior of the tube A.

E is a rod located within the tube B, and also within the tube A. On the upper end of this rod is a conical head, *e*, so arranged that when in the position shown in Fig. 3 the cogs or teeth *d* will come in contact with it. F is a cap on the lower end of the tube B, into which cap the end of the rod E passes through a guide, *f*, within the cap. *s* is a coil-spring, which encircles the rod E, and is located between the guide *f* and a pin, *g*, in the rod E. *h* is a cross-bar, which is permanently secured to the lower end of the rod E, and passes through slots *i i* in the cap F. G is a projection or knob upon the cap F, for convenience in manipulating the parts.

In use, when the lamps are at their highest point the parts will be in the position shown in Fig. 1, and the conical head *e* on the rod E will be held up between the cogs *d* by the action of the spring *s*, so that the barrels cannot turn. The operator can draw down the lamps by taking hold of the arms *h* and drawing down the rod E, so as to remove the head *e* from between the cogs *d*. Then the tube B can be drawn down, at the same time winding up the springs in the barrels D.

When the lamps have been drawn down to the desired point the rod E must be released, when the head *e* will be again carried up between the cogs *d*, and will hold the parts in the position in which they have been placed. The lamps can be raised again by drawing down the rod E and withdrawing the head *e* from between the cogs, as before described, when the action of the springs in the barrels will raise the tube B, with which the lamps are to be connected. If the springs are not strong enough to carry the lamps to their highest point, the operator can aid them by pushing upward.

I have not shown the lamps; but as the drawings are made the lamps are to be supported in the cups H upon the ends of the arms I, which, as shown, are secured to the cap F.

In practice these arms I will be connected with a hub attached to the lower end of the tube B.

I do not limit myself to the exact devices described for holding the parts in position, it being evident that equivalents for the rod E and conical head *e* may be adopted to prevent the rotation of the barrels D.

For a light chandelier a single barrel and spring might be used, while for a heavy chandelier three barrels and springs could be used, properly arranged around the tube B.

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

1. In an extension-chandelier, the tube A, provided with holes *b*, in combination with the tube B, adapted to receive the head *e*, head C, and one or more barrels, D, provided with teeth *d* upon its periphery, adapted to engage with the holes *b* in the tube A, all con-

structed and arranged substantially as and for the purposes set forth.

2. The tube A, provided with holes *b*, in combination with the tube B, head C, one or more barrels, D, provided with cogs or teeth *d*, and the rod E, provided with a head, *e*, substantially as and for the purposes set forth.

3. The combination of the tubes A and B, barrels D, provided with cogs or teeth *d*, rod E, provided with a head, *e*, spring *s*, and bar *h*, projecting through the cap F, all constructed and operating substantially as and for the purposes set forth.

GEORGE BOHNER.

Witnesses:
E. A. WEST,
O. W. BOND.