

(No Model.)

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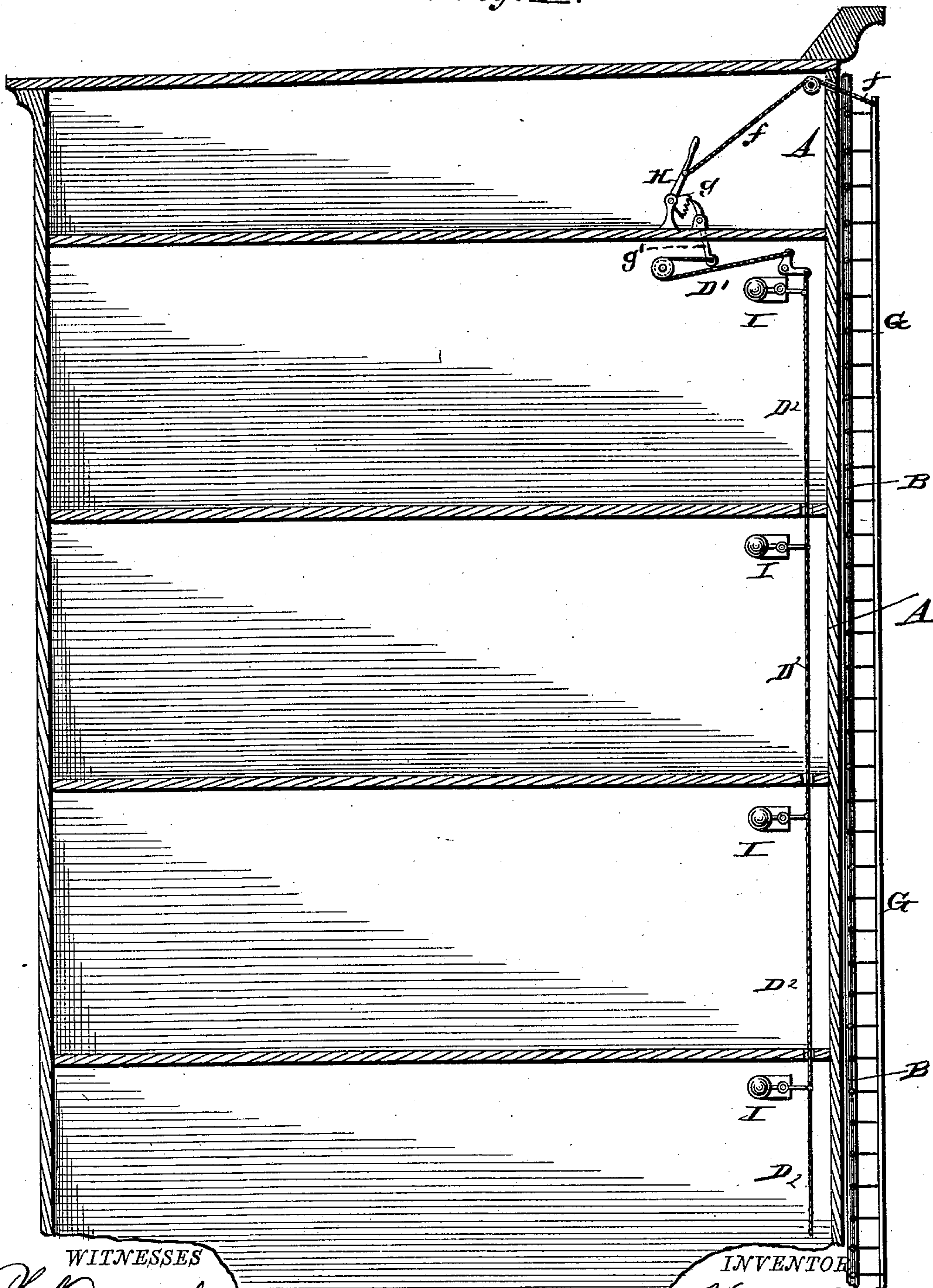
V. W. BLANCHARD.

FIRE ESCAPE AND WATER CONDUCTOR.

No. 298,163.

Patented May 6, 1884.


Fig. 1.



WITNESSES

Phil Dietrich.

INVENTOR

Virgil W. Blanchard
By: 
J. Alexander
Attorney

(No Model.)

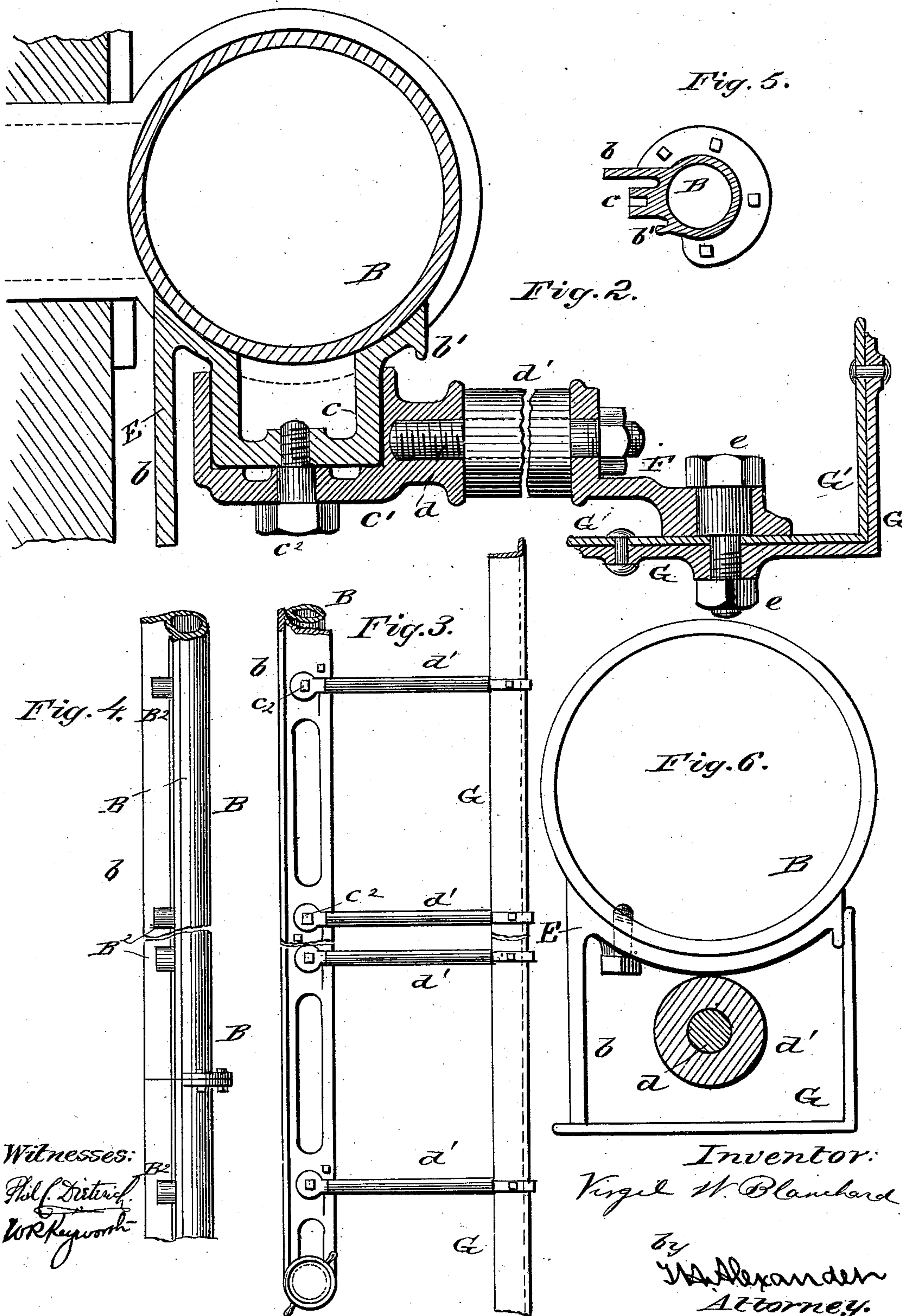
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3 Sheets—Sheet 3.

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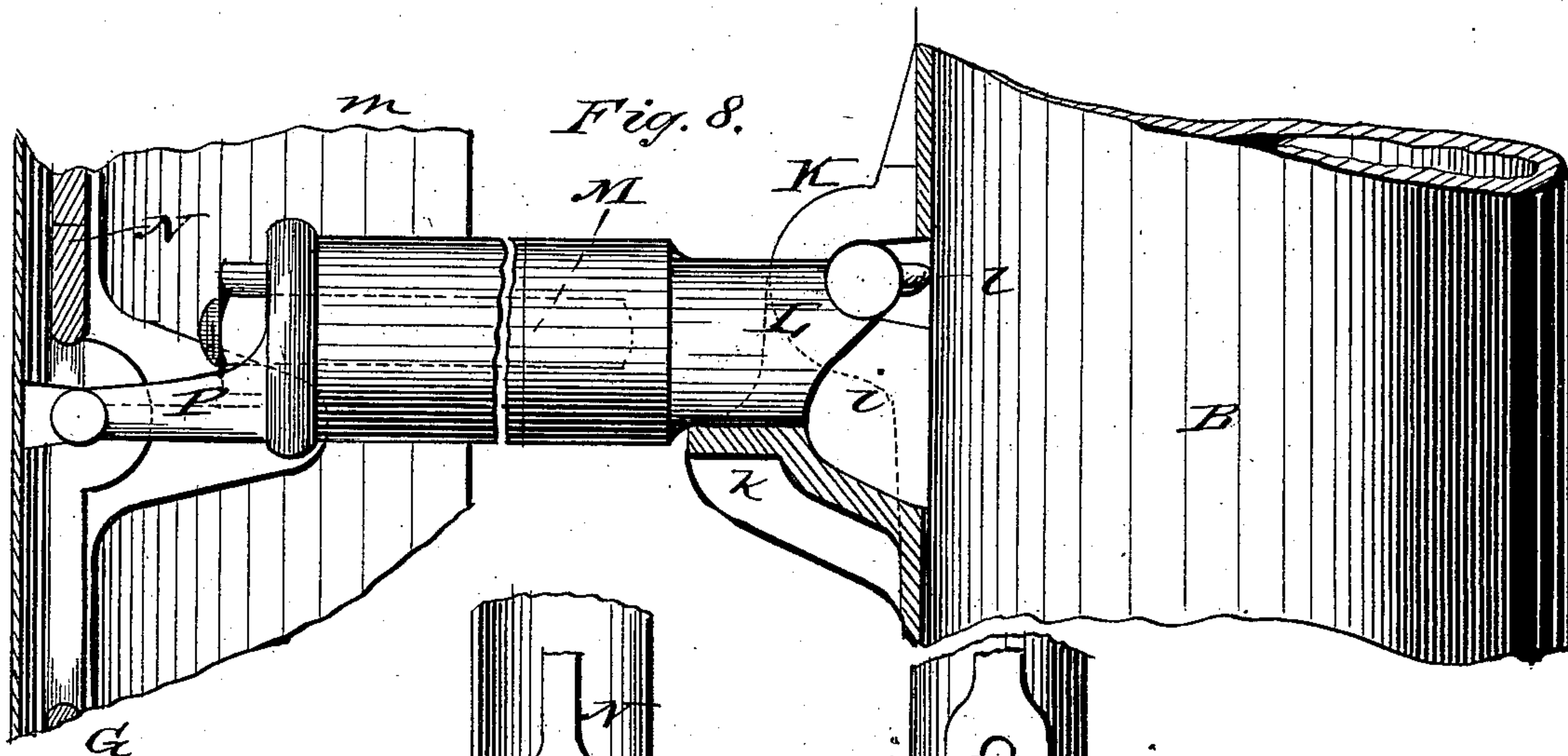
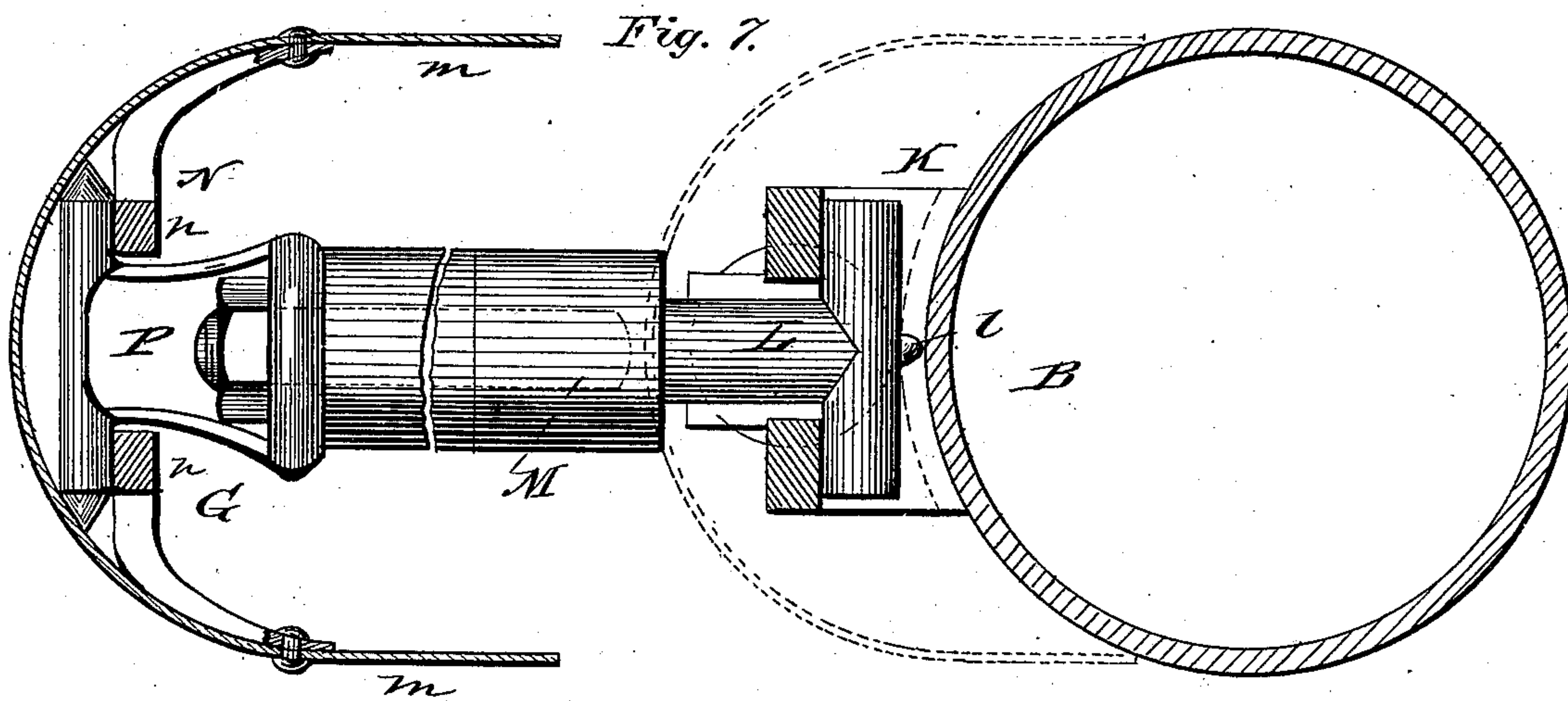


Fig. 9.

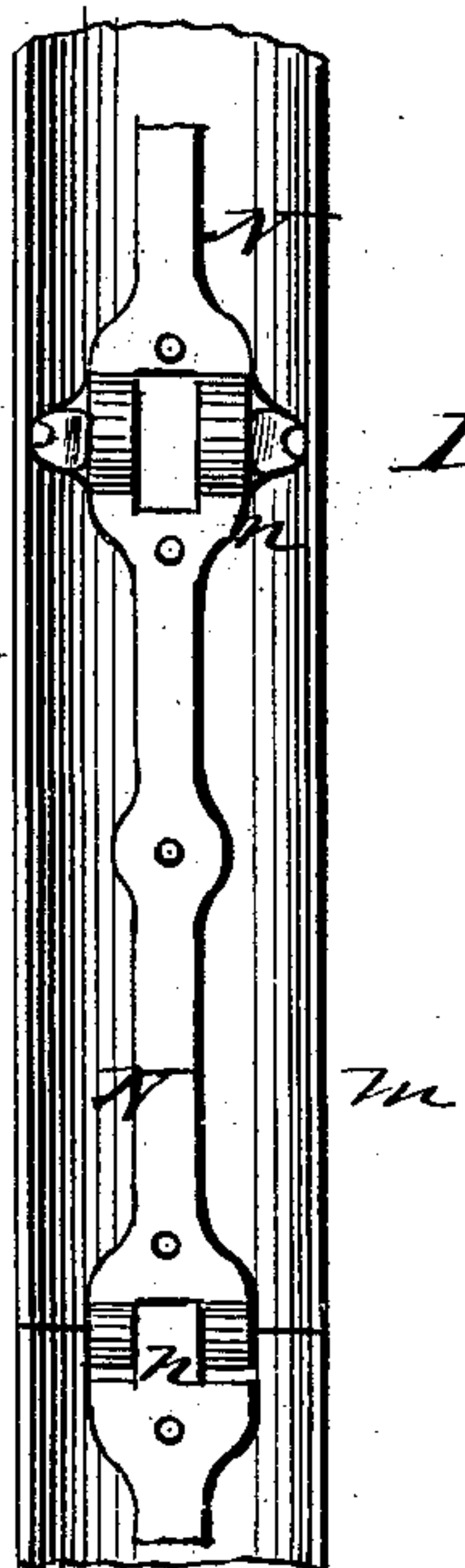
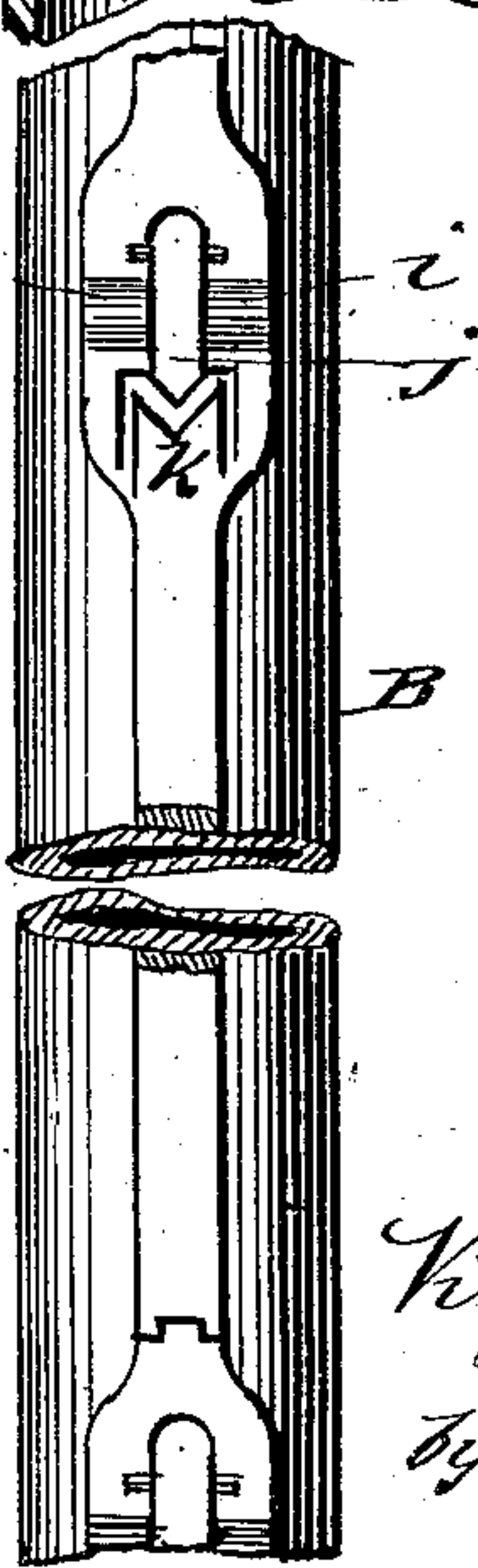


Fig. 10.



Witnesses:

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W. P. Keyworth

Inventor:

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UNITED STATES PATENT OFFICE.

VIRGIL W. BLANCHARD, OF NEW YORK, N. Y.

FIRE-ESCAPE AND WATER-CONDUCTOR.

SPECIFICATION forming part of Letters Patent No. 298,163, dated May 6, 1884.

Application filed January 18, 1883. (No model.)

To all whom it may concern:

Be it known that I, VIRGIL W. BLANCHARD, of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in a Combined Ladder and Fire-Extinguisher; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain improvements in fire-escapes; and it has for its objects to provide a ladder which may be permanently attached to the outer wall of a building, and which may be folded against the same when not in use and unfolded in case of a fire, so as to afford a ready means of escape for the occupants of the building, as more fully herein-after specified. These objects I attain by the means illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of a building showing my improved fire-escape; Fig. 2, an enlarged cross-section of the ladder, its support, and one of the joint-closers for the rungs; Fig. 3, an enlarged front view of a portion of the ladder unfolded; Fig. 4, an edge view of the ladder-support. Figs. 5 and 6 are detail views in cross-section; and Figs. 7, 8, 9, and 10 are enlarged views illustrating a modification of the ladder.

The letter A indicates the front wall of a building against which my improved ladder is erected.

B designates a support, which may be tubular or solid, which is securely anchored to the said wall, so as to form a permanent structure. This support or pipe forms one of the uprights of the ladder, and it may be composed of sections suitably bolted together, and extending from a point near the sidewalk to the cornice or roof of the building, as indicated in Fig. 1 of the drawings.

The letter G indicates a supporting-cover, which is the movable upright of the ladder, and which is rectangular in cross-section, as shown in Figs. 2 and 6, and to which the rungs of the ladder are pivoted, as will be described hereinafter.

E designates an angular bracket, which is suitably secured to or formed on the support B, and constructed with a flange, *b*, a lip, *b'*, and a cylindrical stud, *c*.

On the stud *c* is applied a cap, *c'*, which is secured in its place, but allowed to swivel, by means of a shouldered bolt, *c''*. The neck of the cap *c'* has firmly secured into it a rod, *d*, which passes through a tube, *d'*, preferably of wood, through an angular end piece, F, and receives a nut on its end, as shown in Fig. 2. The angular piece F is pivoted to the movable upright G by means of a shouldered bolt, *e*, which also passes through an angular stiffening-strap, G', riveted to said upright. Each rung is pivoted to the uprights A G, as above described, thus allowing the upright G to be folded up closely against the support B, as shown in Fig. 6, in which position the rungs and their joints will be covered and protected by the angular upright G and the parts *b b'*. If desired, the flange *b*, the lip *b'*, and the stud *c* may be formed entire with the support of the ladder, as shown in Fig. 5. When the ladder is unfolded, the lower end of the upright G rests upon the ground, as shown in Fig. 1, and when this upright is folded against the upright-support it is held in position by means of a chain, *f*, which is attached to its upper end, passed over a pulley, and attached to a lever, H, having a toothed segment, *g*, on one end, with which a pawl, *g'*, engages. To this pawl a cord, D', is attached, which connects with the chain D². The cord or chain D² is connected to the hammers of the gongs I, located in an apartment of each story. When the cord or chain D' is pulled, the pawl *g* will release the lever H and allow the ladder to unfold, as shown in Figs. 1 and 3.

In the modifications represented in Figs. 7, 8, 9, and 10, the upright B has first secured to it in any suitable manner strap-sections K, which are united to each other by interlocking ends, and which are constructed with ears *i i*, a V-shaped support, and a seat, *k*, adapted to receive the pintle T-shaped head of the rung. The folding upright G of the modification is semi-cylindrical, and is provided with yielding wings *m n*, which are adapted to clasp closely the tubular upright A when

the ladder is folded, and thus inclose and protect the joints of the rungs.

5 To the inner side of the upright G are rigidly secured straps N, which are constructed with ears *n n*, to which is pivoted a T-shaped head, P, that is rigidly bolted to the rod M, as shown in Figs. 7 and 8.

The wings of the strap N are riveted to the upright G, and add strength and stiffness to it.

10 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A fire-escape ladder constructed with a stationary tubular upright, in combination 15 with the folding upright G and the rungs jointed to the uprights, and adapted to operate substantially in the manner and for the purposes described.

2. In a fire-escape ladder, the combination 20 of a stationary upright, B, an angular bracket, E, having flange *b*, lip *b'*, and swivel-studs *c*,

the folding angular upright G, and the rungs pivotally connecting the said uprights, substantially as set forth.

3. In a fire-escape ladder, the combination 25 of a fixed upright, an angular bracket having swivel-studs *c*, the folding angular upright G, the swiveled cap *c'*, pivoted angular end piece, F, and the rungs connecting the same, substantially as set forth. 30

4. In a fire-escape ladder, the combination, with the folding angular upright G and pivoted end piece, F, of the angular stiffening-strap G', substantially as set forth.

In testimony that I claim the foregoing as 35 my own I affix my signature in presence of two witnesses.

VIRGIL W. BLANCHARD.

Witnesses:

H. P. Sisson,

JOHN R. BERAIFE.