

(No Model.)

2 Sheets—Sheet 1.

C. R. QUIGLEY.
PHOTOGRAPHIC DEVELOPING CABINET.

No. 362,782.

Patented May 10, 1887.

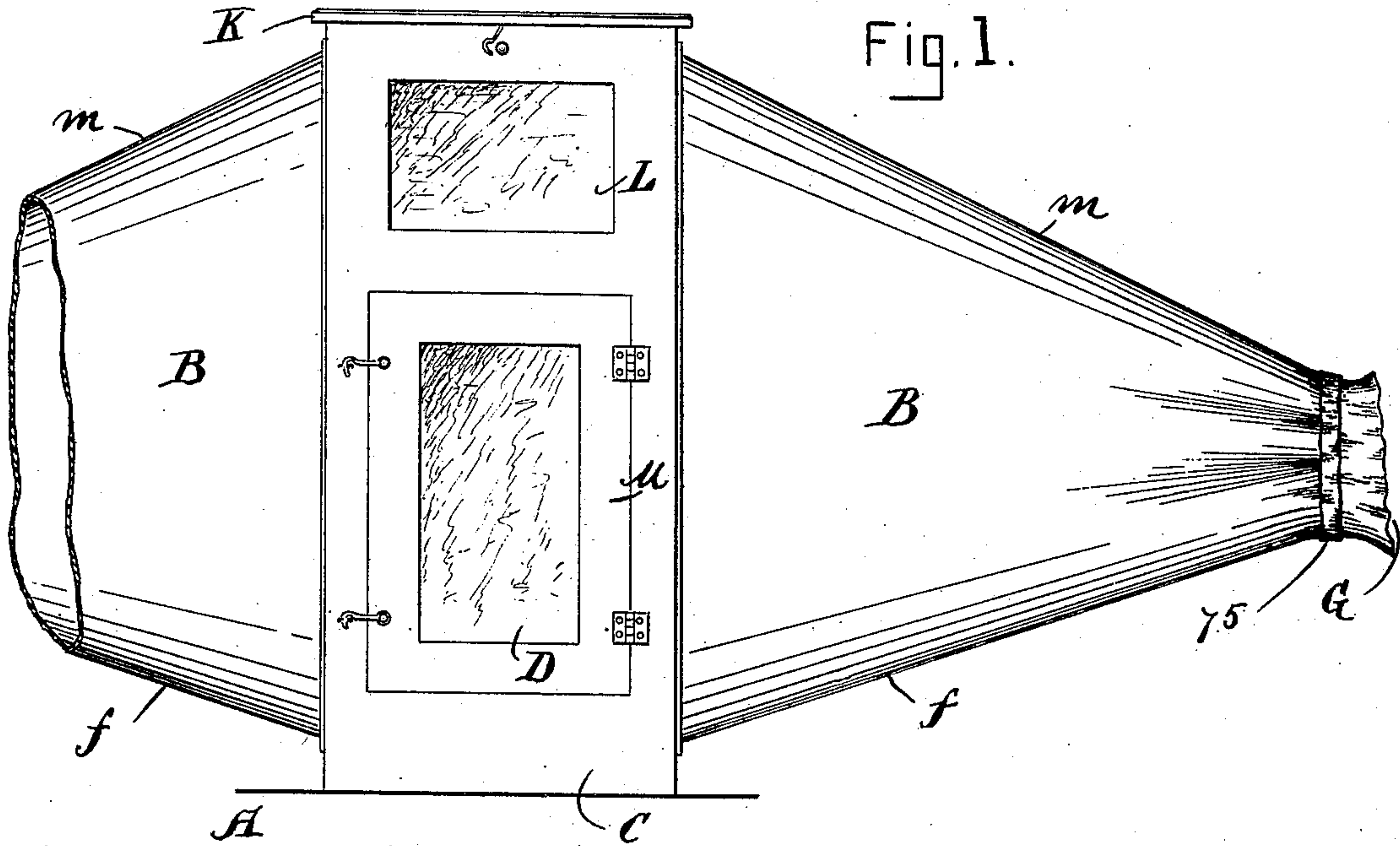


Fig. 2.

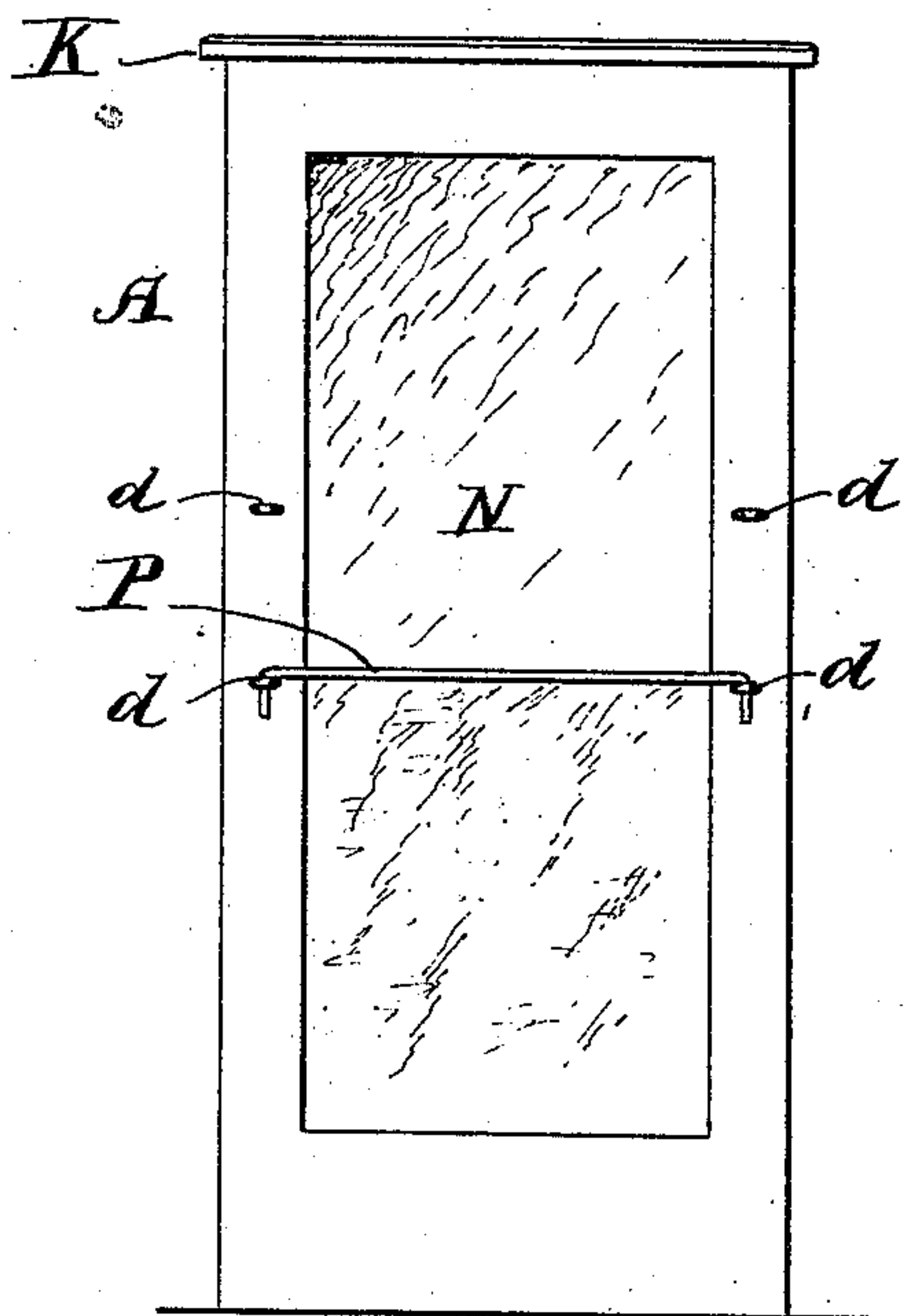
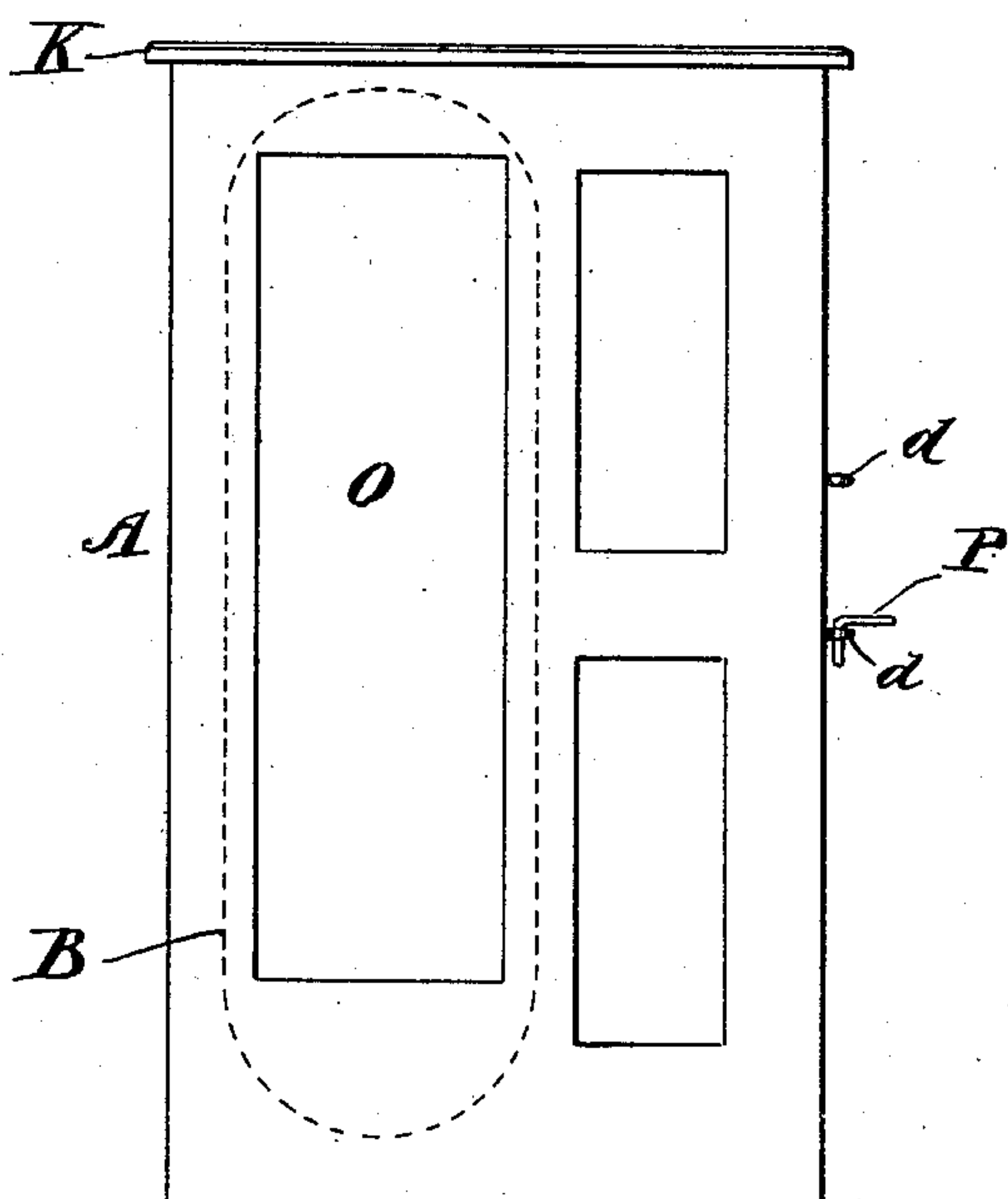


Fig. 3.



Witnesses.

E. Blanda.
C. L. Sawyer,

Inventor.

Charles R. Quigley
Per C. A. Shaw & Co.
Attorneys.

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2 Sheets—Sheet 2.

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Fig. 6.

Fig. 7.

Fig. 8.

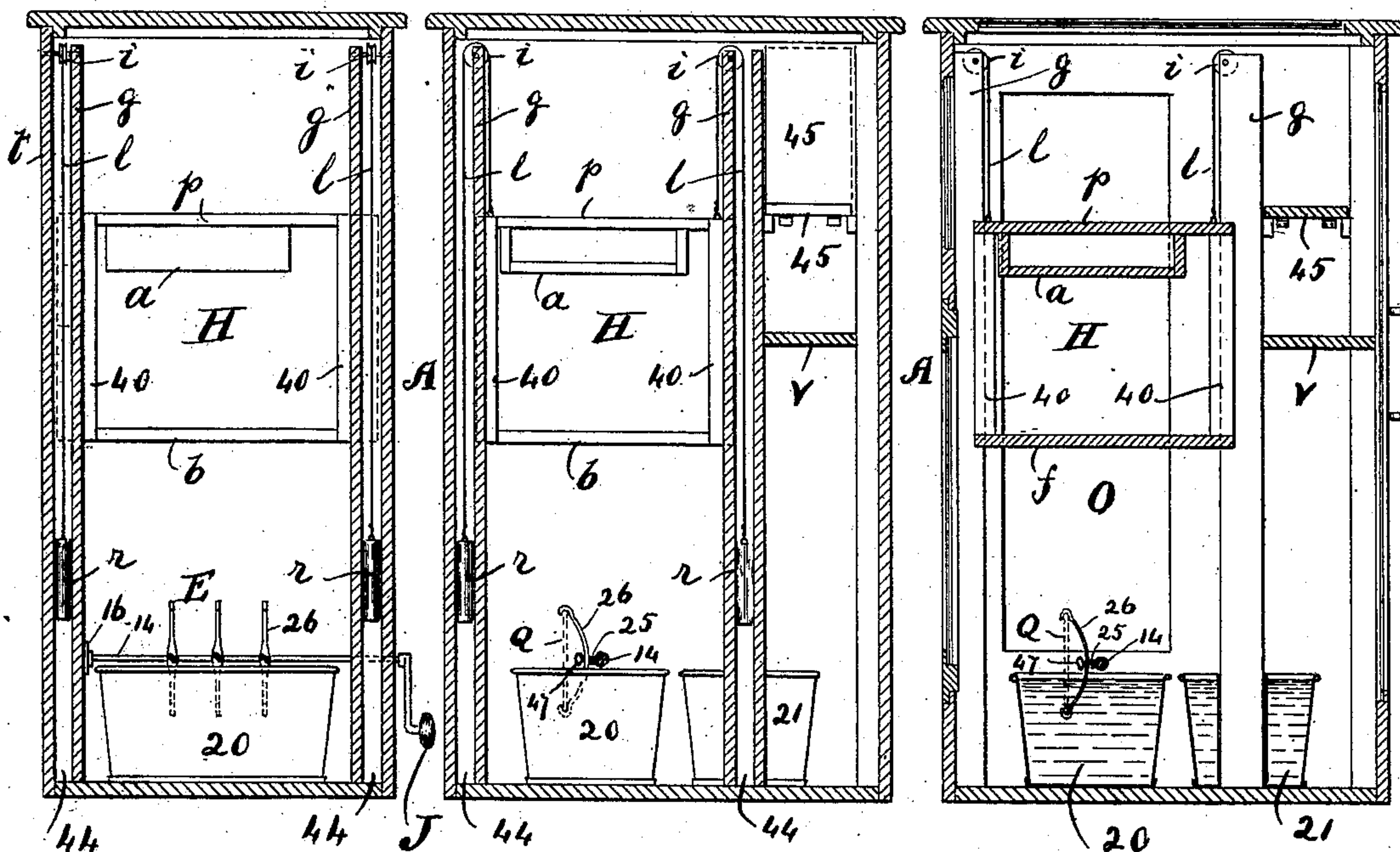
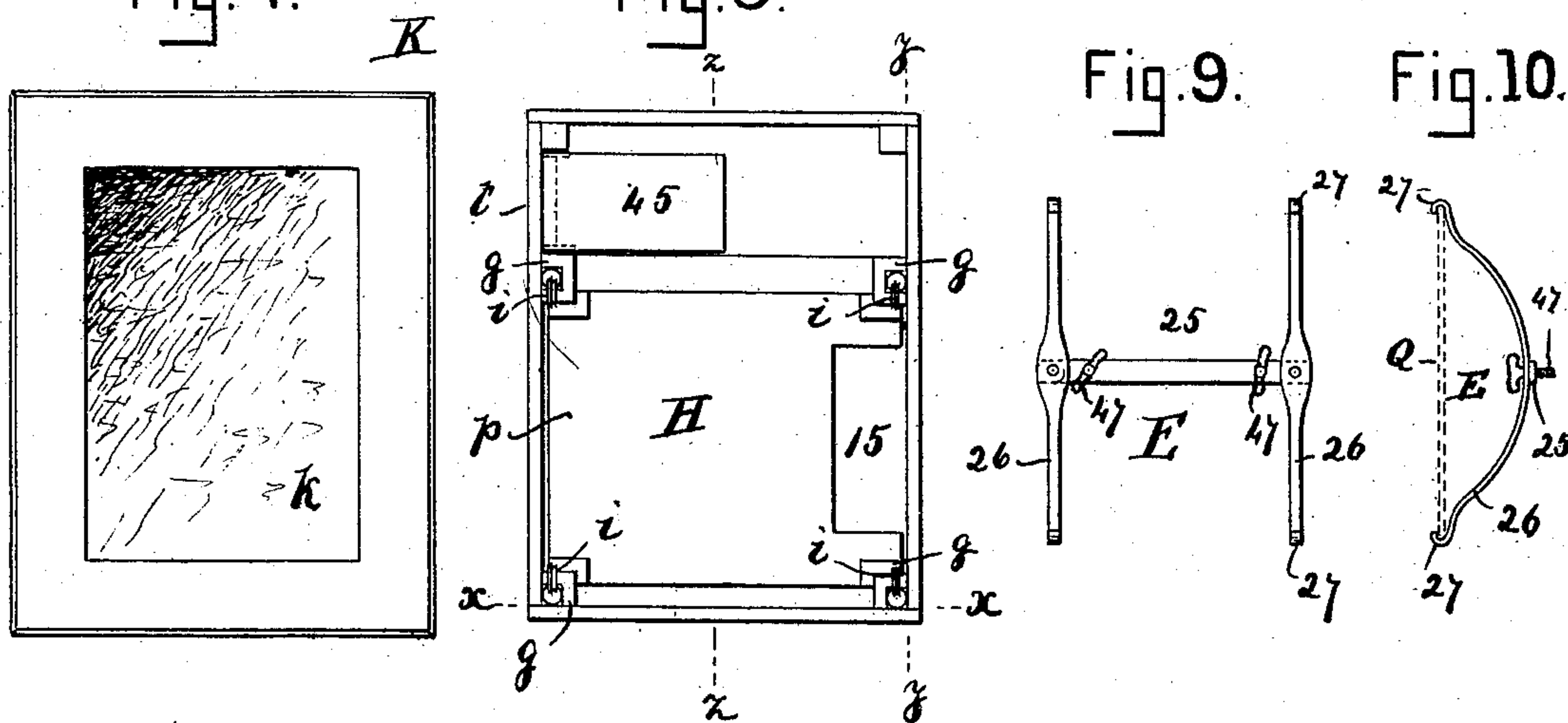


Fig. 4.

Fig. 5.

Fig. 9.

Fig. 10.



Witnesses.

E. Blanta.
E. L. Sawyer,

Inventor.

Charles R. Quigley
Per C. A. Shaw & Co.,
Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES R. QUIGLEY, OF BOSTON, MASSACHUSETTS.

PHOTOGRAPHIC DEVELOPING-CABINET.

SPECIFICATION forming part of Letters Patent No. 362,782, dated May 10, 1887.

Application filed January 26, 1887. Serial No. 225,530. (No model.)

To all whom it may concern:

Be it known that I, CHARLES R. QUIGLEY, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Photographic Developing-Cabinets, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation of my improved cabinet, one of the guards being represented as broken away; Fig. 2, a rear elevation of the same with the guards detached; Fig. 3, a side elevation of the same; Fig. 4, a top plan view with the cover in position; Fig. 5, a like view, the cover being represented as removed; Fig. 6, a vertical section taken on the line *xx* in Fig. 5; Fig. 7, a like view taken on line *yy* in Fig. 5; Fig. 8, a like view taken on line *zz* in Fig. 5; Fig. 9, a front elevation of a plate-rack removed, and Fig. 10 a side elevation of the same.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My improvement relates more especially to apparatus for developing the dry-plates used in photography, being designed to take the place of the ordinary "dark-room;" and it consists in a novel construction and arrangement of parts, as hereinafter more fully set forth and claimed, the object being to produce a more simple and effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation:

In the drawings, A represents the body of the cabinet, and B B the guards. The body consists of a rectangular-shaped box, preferably about two feet and ten inches in height, one foot and three inches wide, and one foot and eight inches deep, and is provided with a hinged cover, K, in which are set two lights of glass, *k*, (see Fig. 4,) the upper or outer

glass being preferably ruby-colored, and the lower or inner one orange-colored.

In the front C of the cabinet near the top is set a light of orange-colored glass, L, and below said glass in the front C there is a hinged door, M, in which is set orange and ruby colored glass D, substantially the same as in the cover K, the outer pane being ruby and the inner orange colored. In the back side of the cabinet is a large pane of orange-colored glass, N, (see Fig. 2,) on either side of which are disposed two or more screw-eyes, *d*, adapted to receive the bent ends of a bar, P, which supports a shelf (not shown) for holding a lamp, the lamp being used when it is desired to employ the cabinet at night.

In either side of the cabinet and near the front there is a rectangular-shaped opening, O, and around each of these openings is secured a funnel-shaped guard, B. (See Fig. 1.) These guards are largest at their inner ends, being oblong in cross-section, and are preferably composed of some flexible material, such as rubber cloth. They are also made in such a manner that their lower edges, *f*, are somewhat longer than their upper edges, *m*, to enable the arm of the operator to be inserted and moved therein with greater freedom. The inner ends of the guards are of such size as to cover the openings O, and their outer ends are provided with openings G, through which the hand of the operator can be easily inserted, their purpose being to prevent light from entering the cabinet through the openings O when it is in use.

Within the cabinet, and on either side of the openings O, are disposed two vertically-arranged runs or ways, *g*, a pulley, *i*, being journaled in the top of each of said runs. A carriage, H, consisting of a shelf, *p*, having a shelf, *b*, secured thereto by upright standards 40 at either corner, is so constructed and arranged as to slide vertically between the ways *g*, being suspended by ropes or cords *l*, which pass over pulleys *i* and are secured to counterbalancing-weights *r*, disposed in wells or runs 44, behind said ways.

Vertical openings 15 are formed in the right-hand edges of the shelves *p b*, (see Fig. 5,) of

such size as to permit the plates to be easily passed through them.

In the rear portion of the cabinet, and conveniently near the top thereof, is secured a shelf, 45, hinged to the left side, *t*, and directly below said shelf there is also a stationary shelf, *v*.

A horizontally-arranged shaft, 14, is journaled at one end in bearings 16, secured to the inner face of the side *t*, its other end protruding through the side of the body A, and being provided with an ordinary crank, J, as shown in Fig. 6.

Two tanks, 20 and 21, preferably composed of copper, and of such height that they will easily pass under the shaft 14, are disposed on the bottom of the cabinet.

The plate-rack E (see Figs. 9 and 10) consists of a bar, 25, on which are secured at right angles thereto two or more elliptic arms, 26, the ends of said arms being bent to form hooks 27, which are adapted to receive and hold the plate Q, the bar 25 being provided with thumb-screws 47, by which it is attached to the crank-shaft 14, the screws entering holes in said shaft. (Not shown.) The arms 26 are elastic, being preferably composed of sheet metal, and yield to receive the plate.

Each of the guards B is provided near its outer end with an elastic band, 75, which contracts around the wrist of the operator as the hand is inserted in the guard, thereby preventing the light from passing into the guards when in use.

In the use of my improvement, the dry-plate to be developed is carried from the camera to the cabinet in the ordinary holder (not shown) and passed through the opening in the top of the cabinet into the body of the carriage, after which the cover is closed. The hands of the operator are then inserted in the guards, and the plate taken from the holder and deposited in a tray (not shown) on the shelf *p*, containing the developing-liquid, the holder and its cover being then placed on a hanging shelf, *a*, which is suspended beneath the shelf *p* for that purpose. After the plate has remained in the developing-liquid a sufficient time, it is passed down through the opening 15 and secured in the plate-rack E, where it is revolved by means of the crank J in a liquid contained in the tank 20, to remove the surplus developing material.

If the plate is not thereby sufficiently cleaned it may be again immersed in water contained in the tank 21 until all surplus chemicals are removed. After the bath in the tank 20 the plate is passed up through the opening 15 and deposited in a tray (not shown) on shelf *b*, which contains the "fixing" liquid, and is then removed from the cabinet, and all after operations of finishing performed outside the cabinet in the ordinary manner.

The shelves 45 and *v* are designed to hold the brushes and bottles containing the chemi-

cals of which the developing baths are composed.

The object of the orange and ruby colored glasses *k* D L N is to color or regulate the light in the interior of the cabinet, so as to obtain the best color for properly developing the plates, the glass *k* also permitting the operator to see into the cabinet while handling the plates during the process.

A curtain (not shown) may be suspended over the door M and rear of the body A, to prevent the light from passing through the glasses D N, if desired.

The object of the carriage or elevator H is to enable the operator to readily move the plates into different positions, and thereby submit them to different degrees of light during the process of developing, and also to move them conveniently near the tanks 20 and 21 before taking them from the developing and fixing trays on the shelves *p* *b*.

I do not confine myself to the number of shelves shown in the drawings, as more or less may be used, or to the number of tanks shown, as one may be sufficient, or to the method described for securing the plate-holder to the crank-shaft, as any suitable means may be employed for that purpose, or to the use of the elastics 75, as they may be dispensed with.

Having thus explained my invention, what I claim is—

1. The improved cabinet herein described, the same consisting of a body having openings in its sides for the hands of the operator, a cover, and a door in its front side, colored glass being set in said cover and door and also in the rear and front of said body, funnel-shaped flexible guards secured to the body around said openings, a carriage or elevator provided with shelves and adapted to move vertically between runs or ways in the interior of said body, counterbalancing-weights suspended from cords attached to said carriage and working on pulleys in the tops of said runs, hinged and stationary shelves in the rear portion of said cabinet, a crank-shaft journaled in the lower portion of the body, a plate-rack secured to said shaft, and tanks disposed in said body, substantially as described.

2. In a cabinet of the character described, the body A, provided interiorly with a counterbalanced carriage adapted to move vertically therein, openings glazed with colored glass to regulate or color the light, and guards to prevent the light from entering the openings in said body through which the hands of the operator are inserted, substantially as described.

3. In a cabinet of the character described, the body A, provided with the counterbalanced elevator or carriage H, guards B B, tanks 20 and 21, openings glazed with colored glass, a door, and a cover, substantially as set forth.

4. In a photographic cabinet of the character described, the plate-holder E, in combination with the screw 47, crank-shaft 14, and body A, substantially as set forth.
- 5 5. In a photographic cabinet of the character described, the counterbalanced carriage H, having the shelves *b p*, provided with the vertical openings 15, substantially as and for the purpose set forth.
6. In a cabinet of the character described, 10 the body A, provided with the ways *g* and guards B, in combination with the carriage H, provided with the shelves *b p a*, cords *l*, and pulleys *i*, substantially as described.

CHARLES R. QUIGLEY.

Witnesses:

O. M. SHAW,
E. L. SAWYER.