

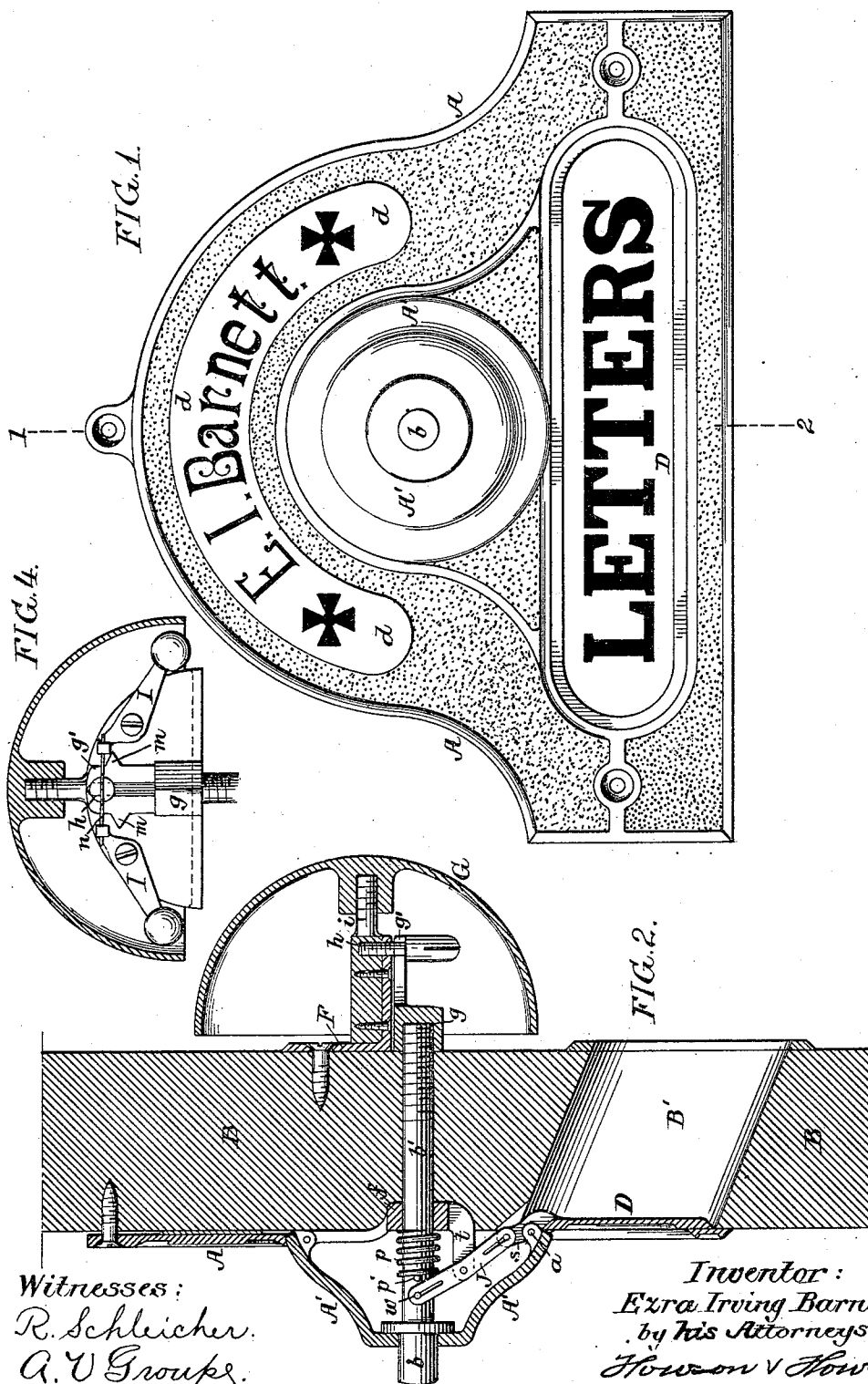
(No Model.)

2 Sheets—Sheet 1.

E. I. BARNETT.
COMBINED LETTER DROP AND BELL.

No. 461,230.

Patented Oct. 13, 1891.



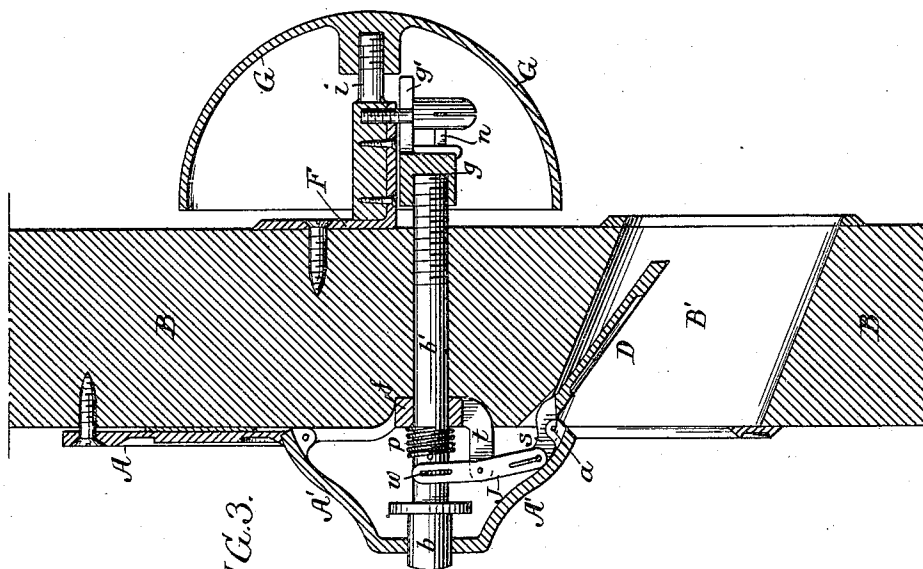
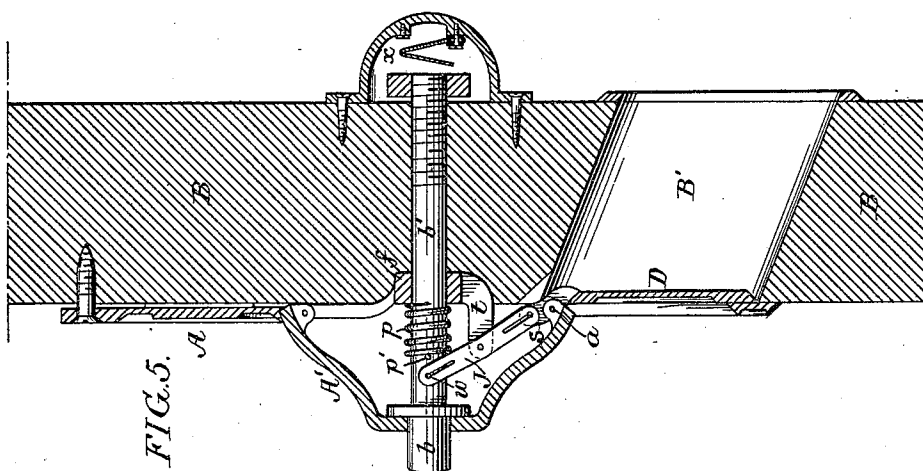
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Witnesses:
R. Schleicher.
Q. V. Group,

Inventor:
Extra Irving Barnett
by his Attorneys
Howson & Howson

UNITED STATES PATENT OFFICE.

EZRA IRVING BARNETT, OF READING, PENNSYLVANIA.

COMBINED LETTER-DROP AND BELL.

SPECIFICATION forming part of Letters Patent No. 461,230, dated October 13, 1891.

Application filed May 11, 1891. Serial No. 392,348. (No model.)

To all whom it may concern:

Be it known that I, EZRA IRVING BARNETT, a citizen of the United States, and a resident of Reading, Berks county, Pennsylvania, have invented certain Improvements in a Combined Letter-Drop and Bell, of which the following is a specification.

One object of my invention is to so construct a combined letter-drop and gong-bell for doors that the opening of the flap for the insertion of a letter will cause the ringing of the gong, or the ringing of the gong will cause the automatic opening of the flap, a further object of the invention being to provide for a number of strokes upon the gong by the simple depression and retraction of the push-button connected to the letter-flap. These objects I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a front view of a combined letter-drop and bell constructed in accordance with my invention. Fig. 2 is a transverse section of the same on the line 1 2, Fig. 1. Fig. 3 is a similar section showing some of the parts in different positions. Fig. 4 is an inverted plan view of the hammer mechanism of the gong, showing the gong itself in section; and Fig. 5 is a view similar to Fig. 2, but illustrating a modification of the invention.

A represents a plate constructed for being secured to the front of the door B, in which is the usual opening B' for the insertion of mail-matter, the corresponding opening in the plate A being closed by the swinging flap B, hung to internal lugs *a* on the plate above the opening. The plate A has a central raised portion A', from which projects a push-button *b*, and above this raised portion A' of the plate is, in the present instance, a segmental tablet *d*, which serves as a name-plate, although this tablet forms no essential part of my invention, and may be omitted, if desired. The push-button *b* has a stem *b'*, which passes through a bearing *f* on the plate A and through an opening in the door B, the inner end of this stem *b'* having a head *g* with slotted extension *g'*, guided upon the head of a screw-stud *h*, which is carried by an angle-plate F, secured to the inner face of the door, said plate also carrying the stem *i* of

the gong G. The projection *g'* of the head of the push-button stem has opposite cams *m m*, and to the under side of the angle-plate F are hung a pair of hammer-levers *l*, the short arms of which are acted upon by a spring-plate *n*, carried by the head of the screw-stem *h*. The short arms of these hammer-levers are so located in respect to the cams *m*, as shown in Fig. 4, that when the push-button is forced inward each cam will act upon its respective hammer-lever to retract the same, the action of one cam being somewhat in advance of the action of the other cam, so that the hammer-levers will be retracted successively. As soon as the short arms of the hammer-levers clear the cams *m*, the hammers will be thrown against the gong by the action of the spring *n*, so as to give a double stroke, and on the retraction of the cams there will be a like successive action of the same upon the hammer-levers and a second double stroke, so that for each depression and retraction of the push-button there will be four strokes upon the gong.

The retraction of the push-button is effected by the action of a spring *p*, interposed between the bearing *f* of the plate A and a pin *p'* on the stem of the push-button, as shown in Figs. 2 and 3.

The flap D has above the pivot of the same an arm *s*, and a pin on said arm is adapted to a slot in a lever J, hung to a projection *t* on the plate A, another slot in said lever receiving a pin *w*, which projects from the stem of the push-button. By thus connecting the letter-flap and push-button movement of either effects a corresponding movement of the other, so that the opening of the flap for the passage of letters will be effected automatically whenever the push-button *b* is depressed to sound the gong, and, on the other hand, the depression of the push-button and the sounding of the gong will be effected whenever the flap is raised by the insertion of the letters, so that the mere act of pushing the letter through the opening in the door will raise the flap and sound the gong, only one hand of the postman being required in order to effect such operation.

In Fig. 5 I have illustrated an adaptation of my invention to cases where electric bells

are used in place of a mechanically-operated gong. In this case the inner end of the push-button stem simply acts upon a circuit-closing spring *x*, so as to complete the circuit and ring the bell whenever the push-button is depressed or the letter-flap raised.

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

1. The combination of the inwardly-swinging letter-flap, the bell, the bell-operating push-button, and a connection between the same and the letter-flap, whereby inward movement of the flap on inserting the letter will cause movement of the push-button and the sounding of the bell, substantially as specified.

2. The combination of the door-plate having in the lower portion an opening closed by an inwardly-swinging flap and a raised portion above said opening with a bell and bell-operating push-button and a lever contained

in said raised portion of the plate, said lever serving to connect the push-button and swinging flap, so as to cause joint operation of the two, substantially as specified.

3. The combination of the bell and the opposite hammer-levers with the push-button and its stem, the latter having on opposite sides cams for acting upon said hammer-levers, the parts on one side of the stem being located in advance of those upon the other side of said stem, whereby on the movement of the stem the hammer-levers will be acted upon successively, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EZRA IRVING BARNETT.

Witnesses:

JAMES F. HAGEN,
HENRY HOWSON.