R. MAY.

Improvement in Speaking-Tube Annunciators.

No. 128,552. Patented July 2, 1872.

Fig. 4

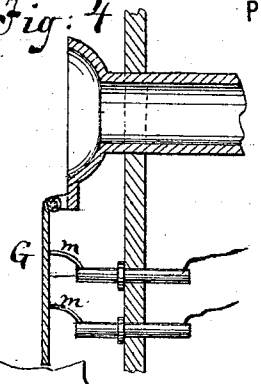


Fig. 1.

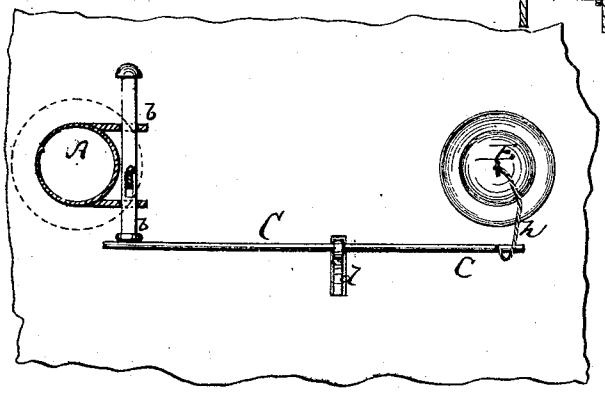


Fig. 2.

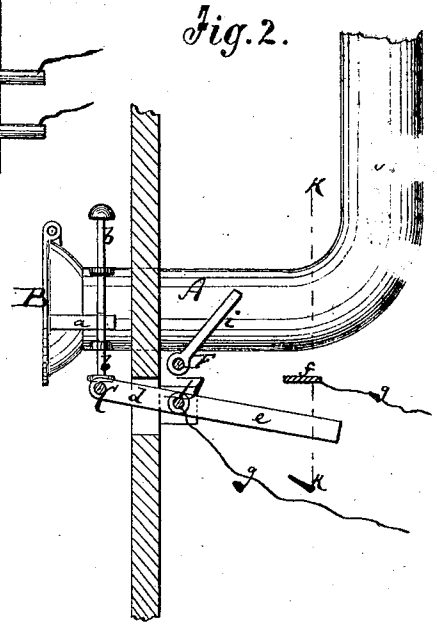
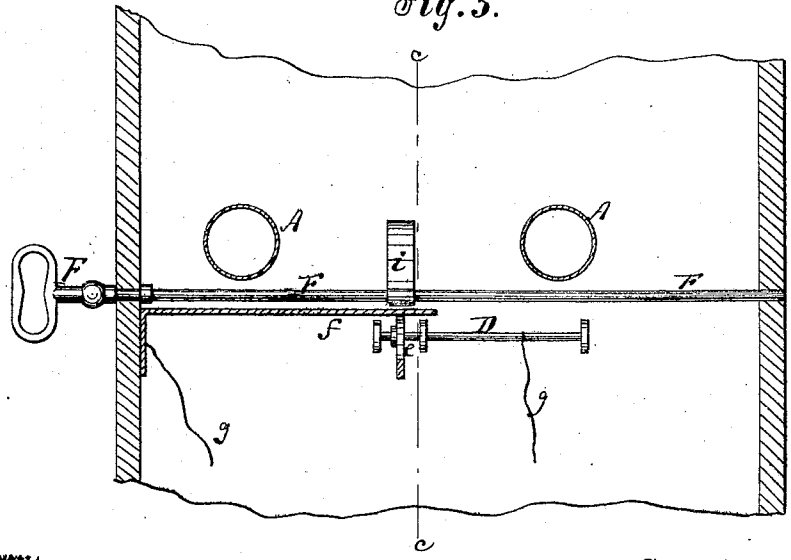


Fig. 3.



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UNITED STATES PATENT OFFICE.

ROBERT MAY, OF NEW YORK, N. Y.

IMPROVEMENT IN SPEAKING-TUBE ANNUNCIATORS.

Specification forming part of Letters Patent No. 128,552, dated July 2, 1872.

Specification describing a new and Improved Speaking-Tube Annunciator, invented by ROBERT MAY, of New York city, in the county and State of New York.

Figure 1 represents a face view, partly in section, of my improved speaking-tube annunciator. Fig. 2 is a vertical transverse section the same on the line *c c*, Fig. 3. Fig. 3 is a vertical section on the line *k k*, Fig. 2. Fig. 4 is a detail transverse section of a modification.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved mechanism, which, when connected with a speaking-tube, will constitute an index and annunciator to call an attendant and show at which tube response is required.

The invention consists in combining a drop-ball or swinging-plate, which is set in motion by air blown through the speaking-tube, with a balanced lever, which serves to establish electric connection when moved by the displacement of said ball or plate.

A in the drawing represents one end of a speaking-tube closed by a hinged plate, B. A lug, *a*, projecting from this plate fits, when the plate is closed, through an upright slide or rod, *b*, or under a shoulder of the same, and serves to hold the same elevated. When, by blowing into the tube from above, the plate B is swung slightly open it will withdraw the lug *a* from the slide *b* and cause the latter to drop upon a rod, C, that is attached to a crank, *d*, of a rock-shaft, D. When the slide *b* is held elevated by the lug *a* the rod C is in contact with its lower end, as shown in Fig. 2. A crank, *e*, on the opposite side of the shaft D is then below and out of contact with a fixed metal plate, *f*. When, however, the shaft D is swung by the dropping of the slide *b*, its arm *e* will be brought in contact with *f*, thereby establishing metallic connection between two electric conductors, *g g*, the circuit through which will set an annunciator or sounding apparatus in motion to call an attendant. The rod C dropped will be an index to the tube to be responded to. The same result can be attained by connecting the rod C by a string, *h*, with a ball or plug, E, which is inserted in the end of tube A, and which when dropped out by the action of air blown into the tube will by its weight carry the rod C down, and furthermore, form a conspicuous indicator.

In hotels or other large establishments, where a considerable number of speaking-tubes are conducted to one porter's or other room, this invention will be of great value. It dispenses entirely with the use of bells and separate annunciator to be operated by the person calling an attendant previous to speaking, and economizes thereby considerably in the outlay for such apparatus.

Several shafts D for a number of speaking-tubes may be arranged in line under keys *i* of a rock-shaft, F, which when turned by hand will bring its keys *i* on the cranks *e* and restore its disturbed parts to new working position. Fig. 4 shows a modification, according to which a drop-plate, G, at the end of the tube comes in direct contact with the two metallic electric conductors *m m*, and thereby establishes a circuit, its pendent position at the same time indicating the tube to be answered to.

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

1. The combination of a drop, *b* or E, from a speaking-tube with a crank-shaft, D, and circuit-closing crank thereon, as set forth.

2. The replacing-shaft F and key *i* thereon, combined with the subject-matter of the foregoing clause.

3. The drop-plate G, combined with the conductors *m m*, as set forth.

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