2 Sheets—Sheet 1.

L. SPANGLER.

DUMB-WAITER.

No. 181,543. Patented Aug. 29, 1876.

Fig. I.

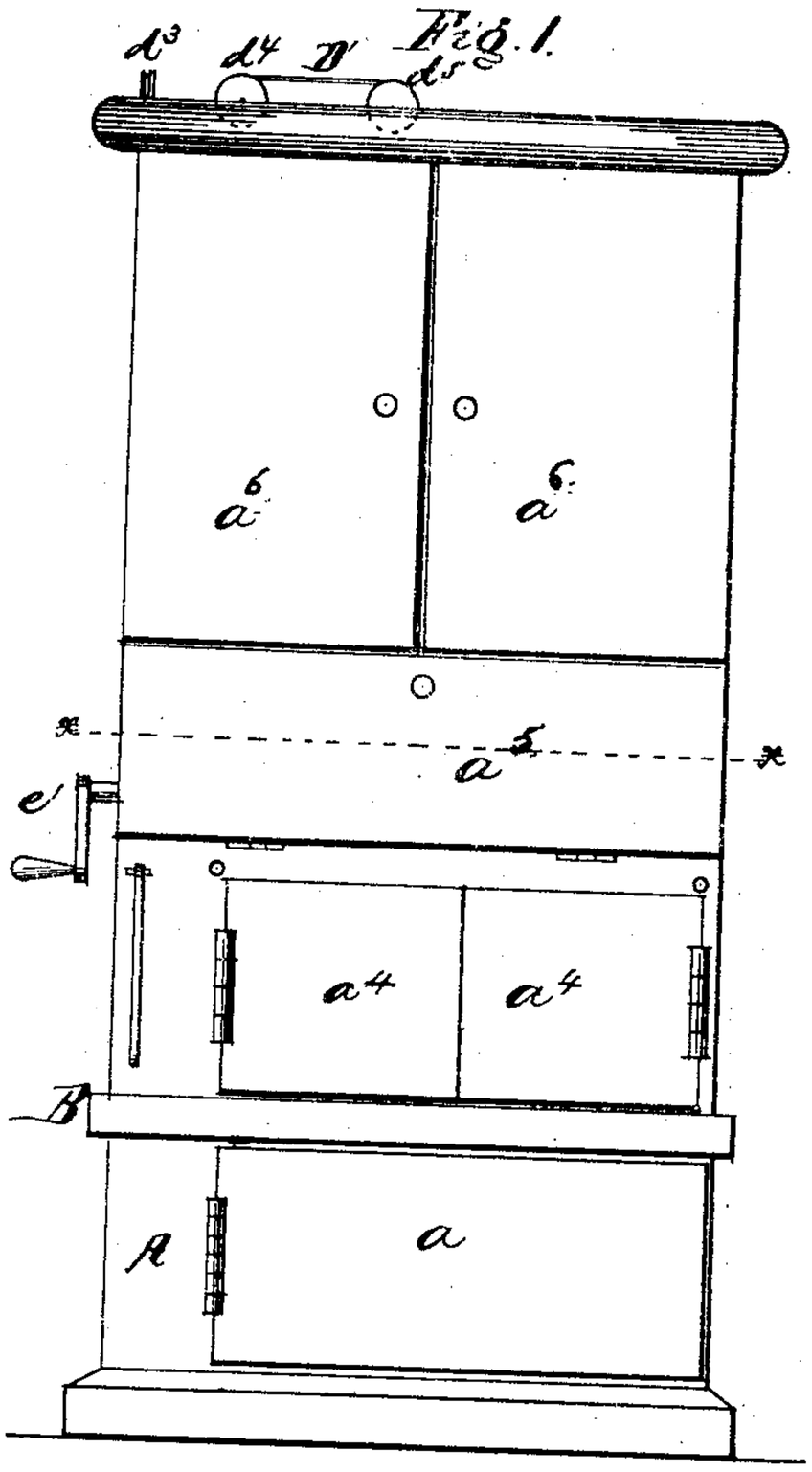
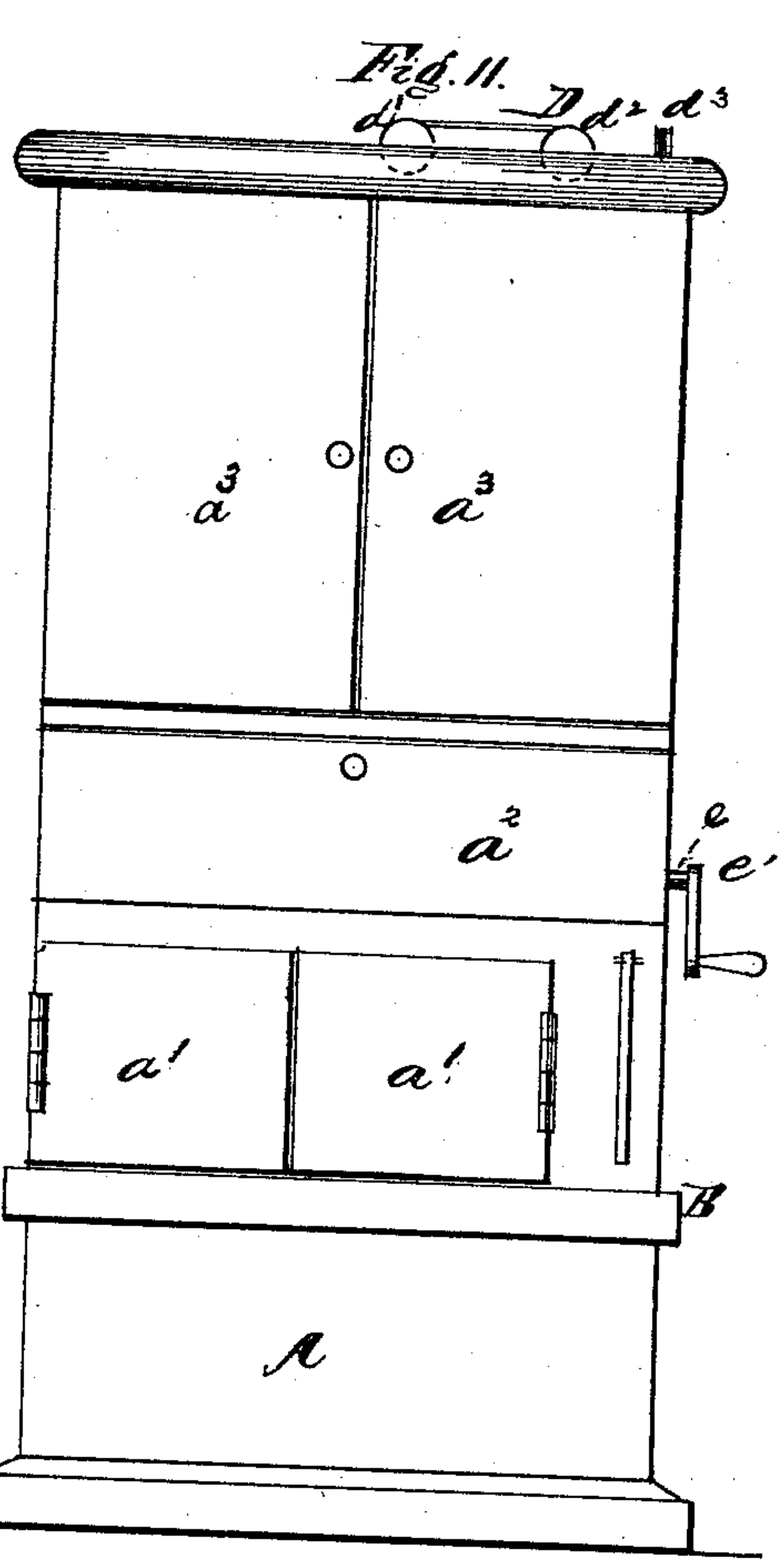


Fig. II.



Witnesses:
Richard Gerner,
Franklin Barrett.

Inventor:
Lewis Spangler.
Per: Henry Gerner,
his Atty.

2 Sheets—Sheet 2.

L. SPANGLER.

DUMB-WAITER.

No. 181,543. Patented Aug. 29, 1876.

Fig. III

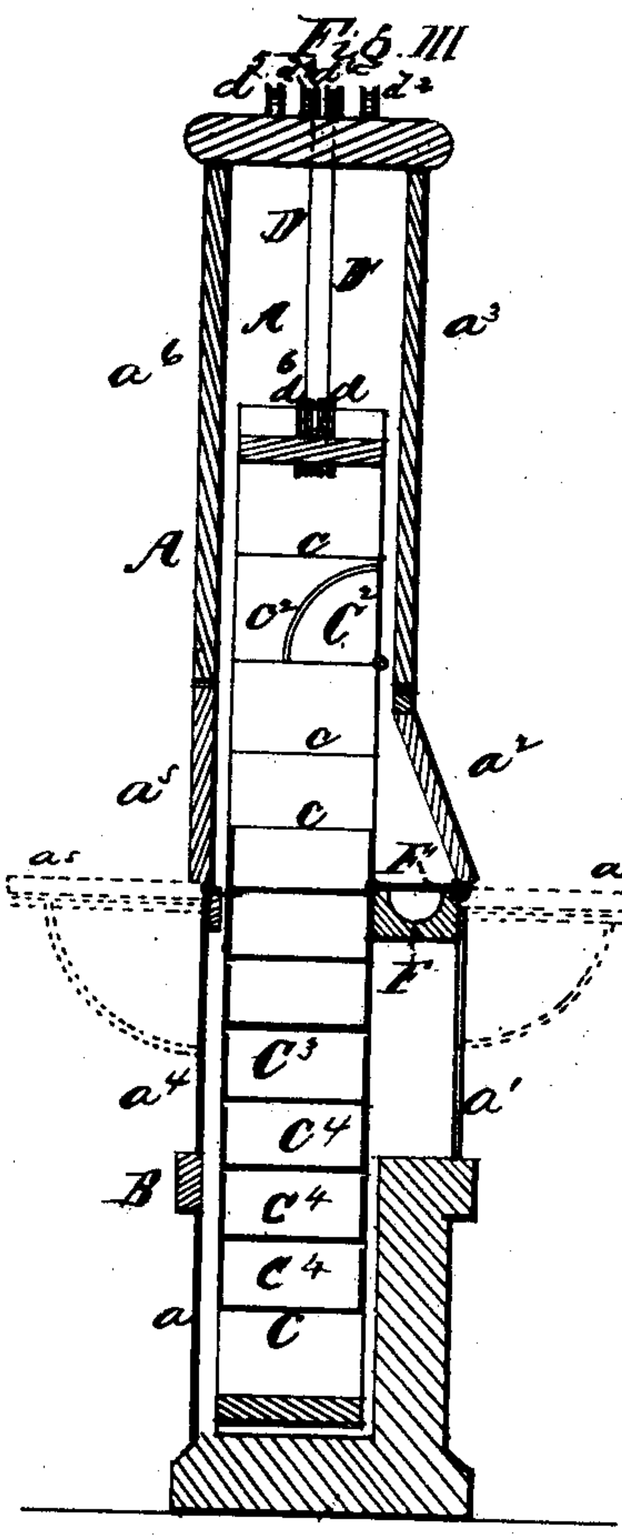


Fig. VI.

Fig. V.

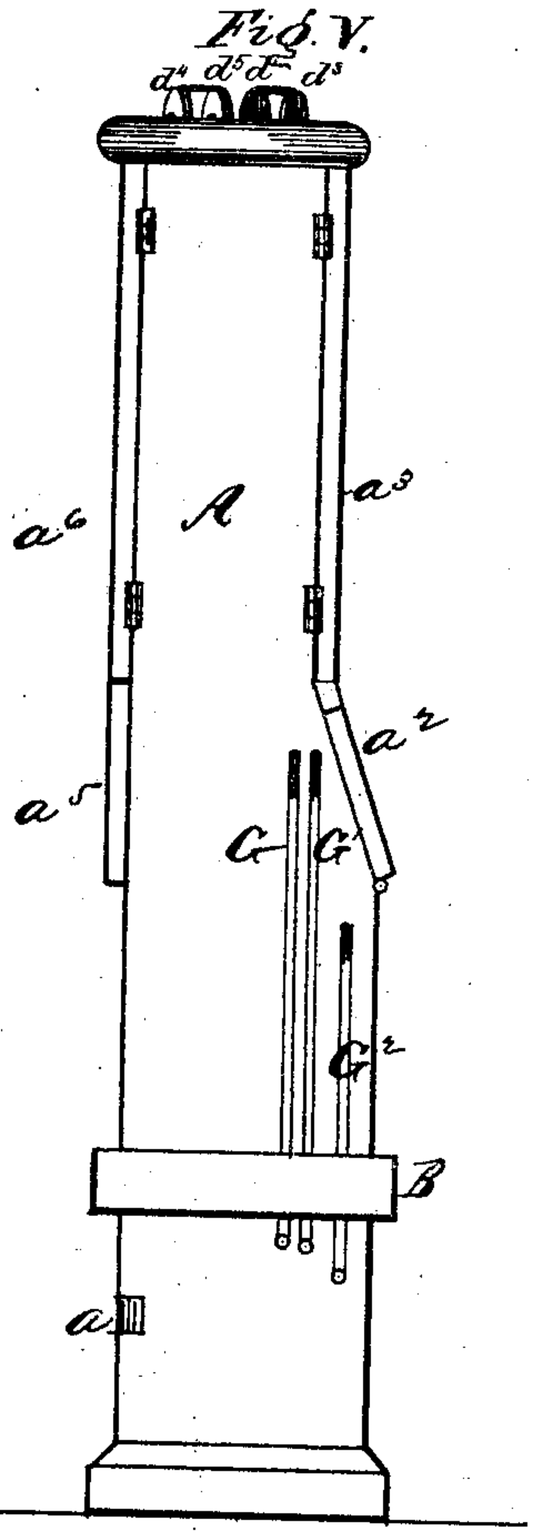
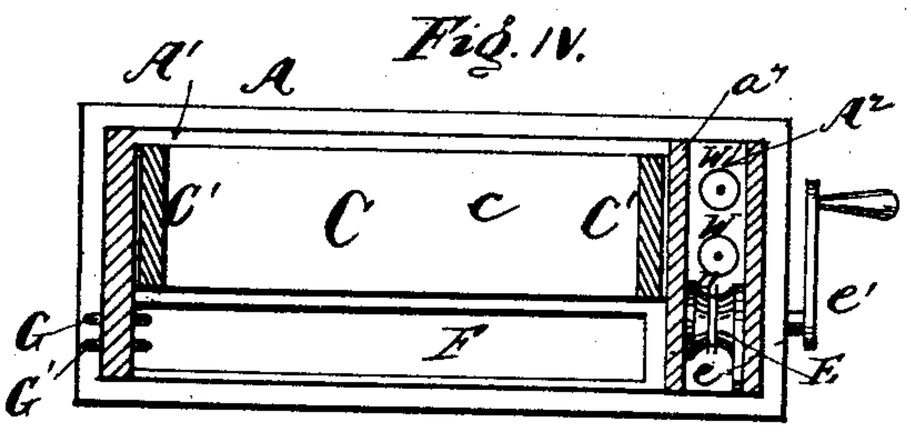


Fig. IV.



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UNITED STATES PATENT OFFICE.

LEWIS SPANGLER, OF AUBURN, INDIANA.

IMPROVEMENT IN DUMB-WAITERS.

Specification forming part of Letters Patent No. **181,543**, dated August 29, 1876; application filed May 31, 1876.

To all whom it may concern:

Be it known that I, LEWIS SPANGLER, of Auburn, in the county of De Kalb, State of Indiana, have invented certain new and useful Improvements in Dumb-Waiters, the nature of which will be fully explained by reference to the accompanying drawings, which form part of this specification, in which—

Figure 1 represents a front elevation, Fig. 2 a rear elevation, Fig. 3 a transverse vertical section, Fig. 4 a cross-section through the line *x x*, Fig. 1, and Fig. 5 an end elevation, and Fig. 6 a plan, of an elevator constructed according to my invention.

In each of the views similar letters of reference are employed to indicate corresponding parts wherever they occur.

A represents the main case or frame, which incloses the operative parts of the machine. The case A extends vertically through as many stories of a building as may be required, and is provided, in the arrangement shown, with a series of doors, $a\ a^1\ a^1\ a^2\ a^3\ a^3\ a^4\ a^4\ a^5\ a^6\ a^6$. The door *a* in the present illustration is by preference placed below the main floor B of the building, and is intended to provide access to the lower part of the dumb-waiter from the cellar or basement of the building, while the doors $a^1\ a^1$, a^2, and $a^3\ a^3$ are adapted to provide access to the dumb-waiter from the kitchen side, and the doors $a^4\ a^4$, a^5, and $a^6\ a^6$ serve to give access to the waiter from the dining or sitting room side. The doors a^2 and a^5 when lowered into the position shown by dotted lines in Fig. 3, and supported on suitable brackets or retaining means, serve to form tables of convenient height from the floor for the purpose of holding plates, dishes, or other articles preparatory to their being placed in or after being taken from the dumb-waiter. The interior of the case A is divided by a vertical partition or diaphragm, a^7, Fig. 4, into two compartments, A^1 A^2. The compartment A^1 is adapted for the reception of the elevator car or case C, while the compartment A^2 is employed to hold the counter-balance weights and the mechanism for operating the car or case C up and down. The car or case C is formed with a suitable frame or side, C^1, and cross-rests or shelves *c*, the whole being securely framed and fastened together, and arranged to move vertically on suitable ways in the case A, as is usual in the construction of dumb-waiters. The car or case C is moved up and down in a vertical direction by means of the rope D, one end of which is attached to the upper part of the case A near the center, and passed thence down under a pulley or sheave, *d*, attached to the top part of the car C, and thence up and over the sheaves $d^1\ d^2$, also supported by the case A, thence down through the chamber A^2 to around the roller or drum E. It then passes up over the pulley or sheave d^3, and down to a weight, W, to which it is attached. The weight W hangs freely in the chamber A^2, and is adapted to keep the rope D constantly in a state of tension, and tightly wound around the drum or roller E, so that the said drum, when turned by means of the crank or handle e' affixed to its axis *e*, will always act on the rope D, to move the car C up and down, as required. The crank or handle e' is, by preference, located outside of the case A and on the kitchen side.

In large elevators having heavy cars to be operated, it will be necessary to employ a counter-balance weight, W′, provided with ropes or chains D′, said ropes or chains passing over or around suitable sheaves d^4, d^5, and d^6, as shown by Figs. 1 and 3. The case A above the doors $a^4\ a^5$ need be no deeper than is necessary for the accommodation of the car C; but below these doors I prefer that the same shall be widened out, as shown in Figs. 3 and 5, to accommodate a sink or trough, F, in which dishes or other articles may be washed. Hot and cold water supply-pipes G and G^1 and a waste or overflow pipe, G^2, respectively, supply water to, and conduct it from, the sink or trough F. F′ is a cover to the trough F, which is made to fold down over the sink F when it is not in use, so as to form a continuation of the table a^2. The compartments between the top series of shelves *c* should be provided with doors or guards C^2, hinged to the shelves, designed to protect or inclose them. These doors or guards C^2 are arranged to fold down into a horizontal position, where they will be held by straps or braces c^2, one of which is shown in Fig. 3. By arranging these doors or guards C^2 on both sides of the dumb-waiter, either side may be closed at pleasure in order to prevent the pas-

sage of steam, or the odors of the kitchen to the dining-room, and also to prevent persons looking from one room to the other.

Between the lower series of shelves I prefer to place drawers C^3 C^4. The drawer C^3 is intended as a dish-washing pan, and is supplied with hot and cold water from the pipes G G^1, as desired, and may be emptied through the trough F and discharge-pipe G^2. The drawers C^4 C^4 are intended for the storage of fruits, vegetables, and other articles needed in the kitchen or culinary department, and being arranged in the lower part of the car may be lowered down into the cool atmosphere of the cellar or basement when not needed in the more heated proximity of the kitchen.

It will be seen that my improved dumb-waiter is equally adapted for affording means of communication between rooms on the same floor as with others above or below.

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

1. The combination, with an elevator-case, A, provided with a series of doors, a a^1 a^3 a^4 a^6 and folding tables a^2 a^5, so arranged as to give access to the opposite sides thereof, the elevator-car C being provided with guards C^2 and straps or braces c^2, and drawers C^4, substantially as shown and described.

2. An elevator-case, A, constructed with a series of doors, a, a^1, a^3, a^4, and a^6, folding tables a^2 a^5, sink or trough F, cover F′, and pipes G G^1 G^2, substantially as shown and described.

LEWIS SPANGLER.

Witnesses:
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