2. Sheets. Sheet. 1.

C. W. Saladee,

Door Bell.

No. 87,794. Patented Mar. 16. 1869.

Fig. 2.

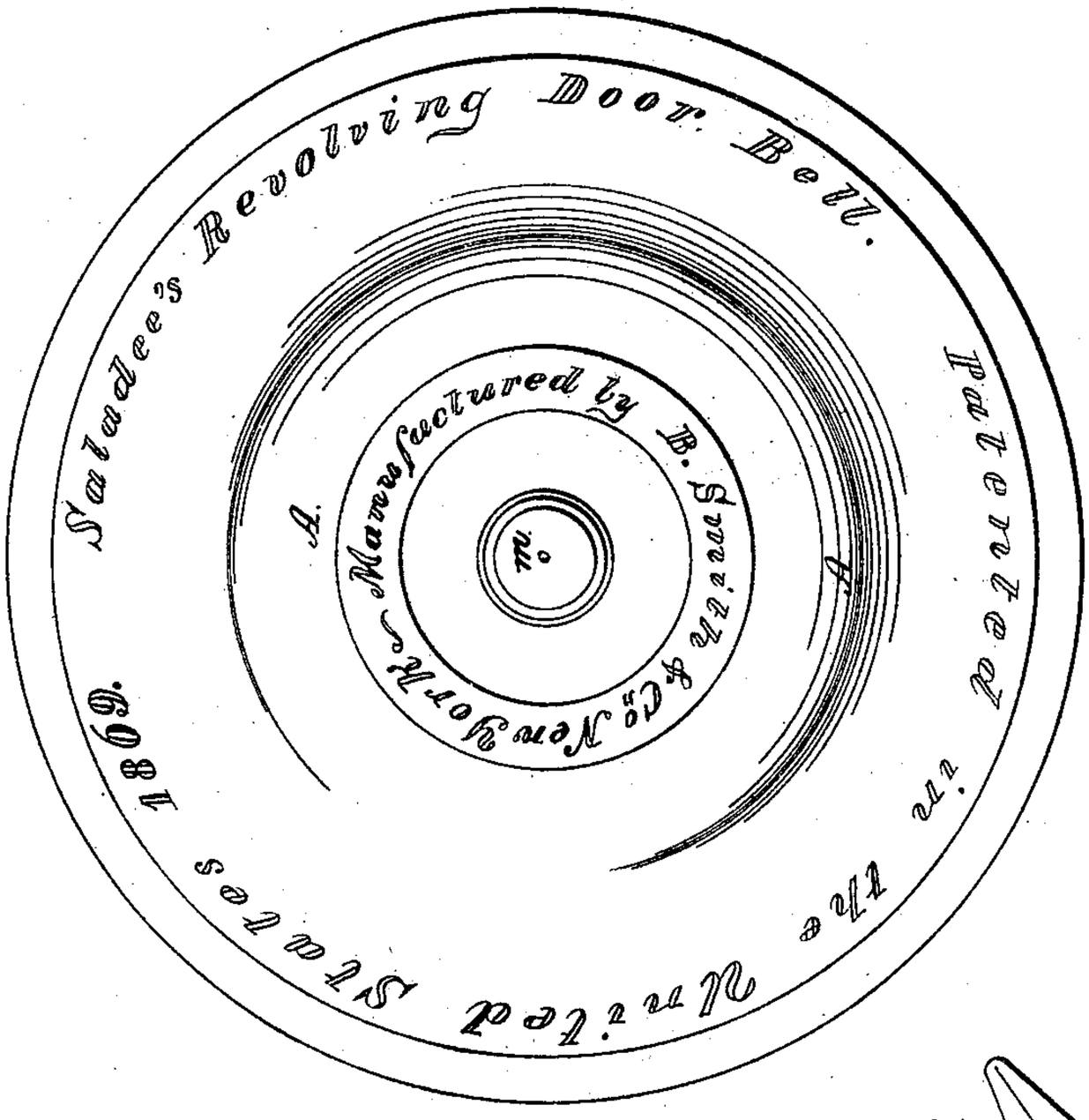


Fig. 3.

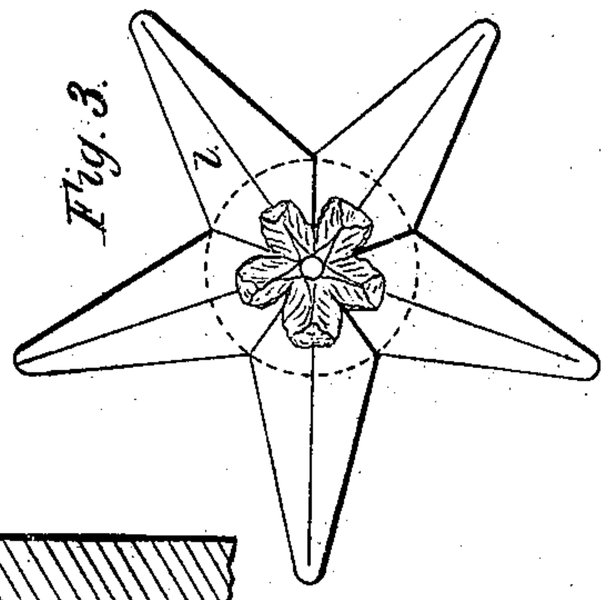
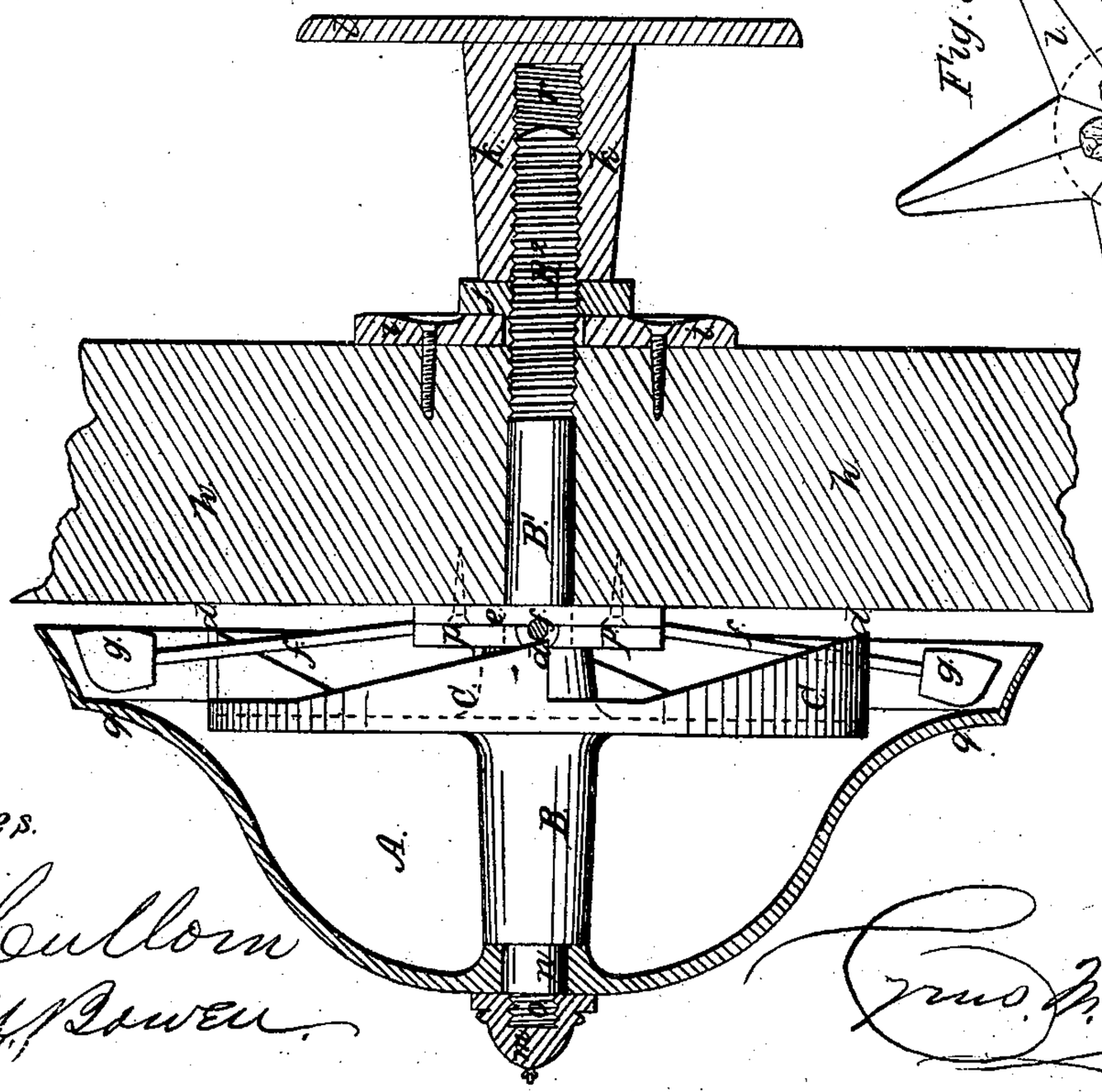


Fig. 1.



Witnesses.

L. M. Coulborn

E. M. Bowen

Inventor.

Chas. W. Saladee

2. Sheets. Sheet. 2.

C. W. Saladee,

Door Bell.

No. 87,794. Patented Mar. 16. 1869.

Fig. 5.

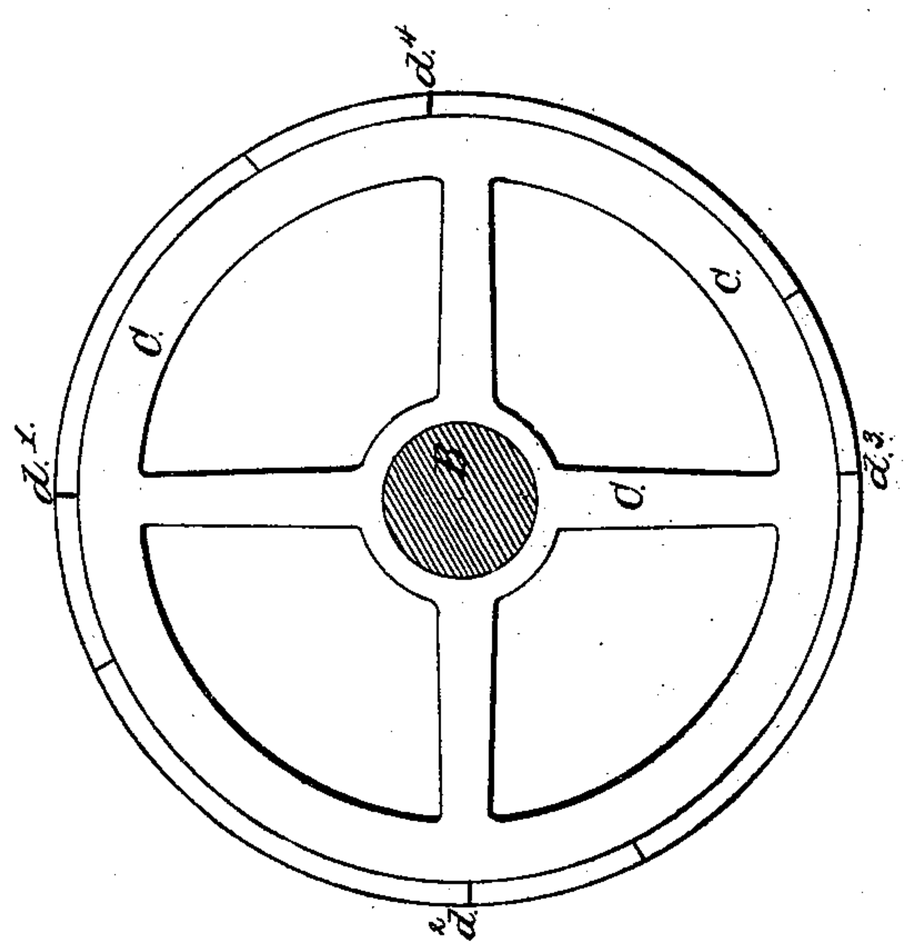
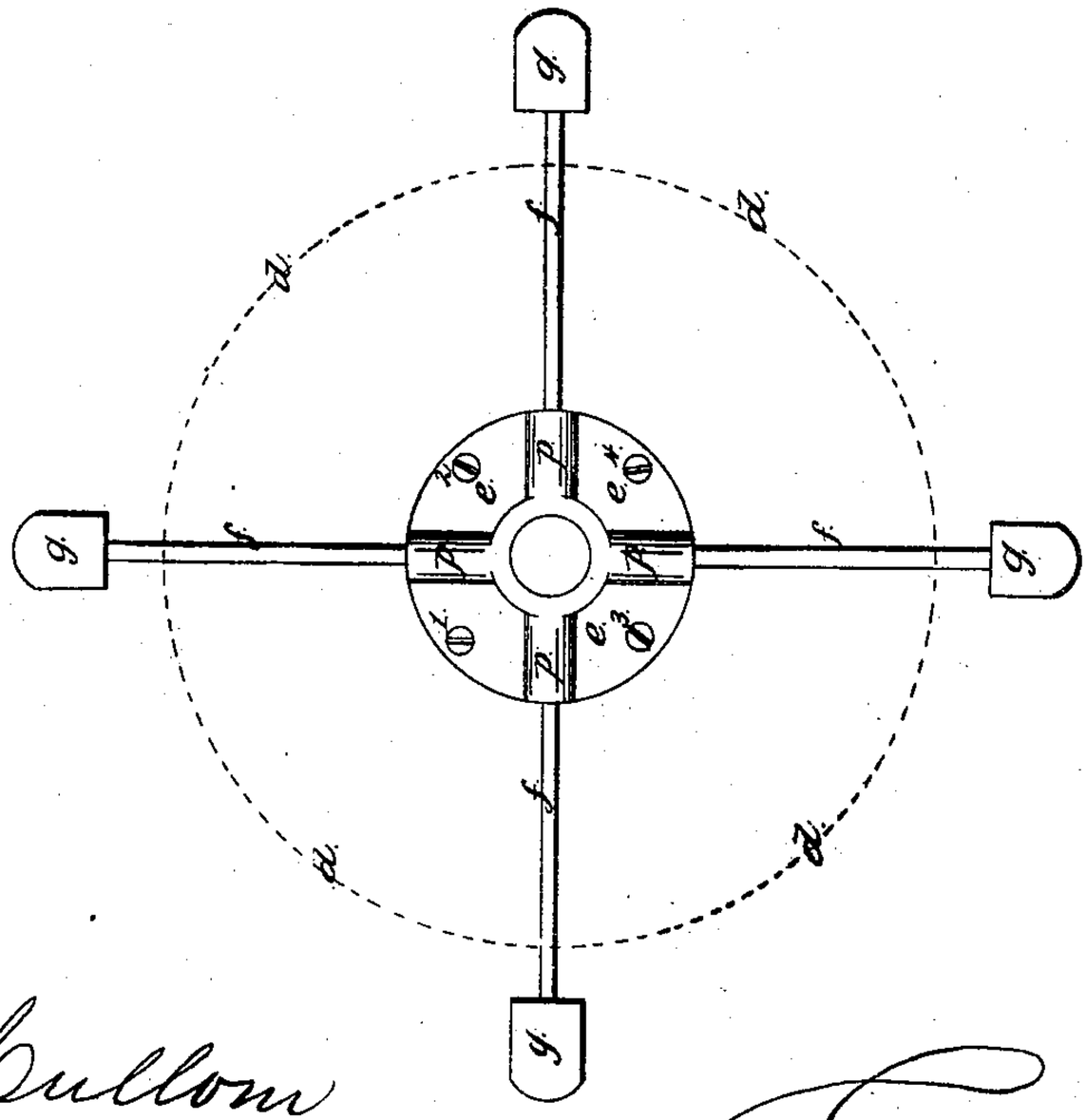


Fig. 4.



Witnesses.

Sylvester Sullom

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United States Patent Office.

CYRUS W. SALADEE, OF CIRCLEVILLE, OHIO.

Letters Patent No. 87,794, *dated March* 16, 1869.

IMPROVEMENT IN DOOR-BELLS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CYRUS W. SALADEE, of Circleville, in the county of Pickaway, and in the State of Ohio, have invented a new and improved Mode of Constructing Revolving Door-Bells; 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.

My invention consists in rigidly connecting the bell to the shaft, or bolt passing through the door, and into the knob, or handle on the outside, so that the bell shall revolve with the knob, or handle; also, in the peculiar arrangement of any desired number of hammers secured to a plate, and fastened to the inside of the door, and through which plate the bolt, or shaft of the bell passes, and which latter is provided with a notched flange-wheel, so arranged, that in revolving the bell by the knob, or handle outside the door, the hammers are acted upon so as to make them strike the bell all at once, or in rotation, so that the sound will be as if struck but once, or in rotation, one hammer striking the bell immediately after the other, until a number of alarms is given corresponding with the number of hammers used; and in greatly simplifying the construction and adding to the efficiency of that class of door-bells which is secured to and operated upon the door.

In the drawings—

Figure 1 represents my complete bell A. *q q* show the bell in section, cut in two in the centre; O, *n*, B, B^1, and B^2, represent the full outline and proportion of the shaft to which the bell is secured; and C C is a flange-wheel, rigidly fixed on the bell-shaft, and which is provided with the notches *d d d d*, which are made to come in contact with the steel wires F F F F, the latter being secured in the round plate *e e e*, as seen in fig. 4; and on the outer ends of the spring-wires are secured the hammers *g g g g*. The bell is secured to the inner end of the shaft by a square hole through its centre, and made to closely fit the square, *n*, of the shaft B, and is held in position by the nut *m*. The outer end of the shaft B B^1 has a screw-thread, B^2, cut thereon, as seen in fig. 1, to receive the set-screw tap *j* and the knob, or handle K, K, and L.

Figure 2 is an outside view of the bell, as seen when in position on the door.

Figure 3 represents a front view of the knob, or handle L, in form of a star.

Figure 4 is a face view of the plate *c c c*, secured to the inside of the door by the screws 1, 2, 3, 4, and which plate is provided with ribs *p p p p*, which are made to hold the steel spring-wires *f f f f*, on the outer ends of which are the hammers *g g g g*. The dotted line *d*, where it crosses the wires *f*, indicates the point where the notches *d d d d* of the flange-wheel come in contact. In casting the plate *c* and hammers *g*, the wires *f* are first suitably prepared and dropped into the "core-print" of the mould, and the plate and hammers are thus cast on the ends of the wires.

Figure 5 is a view of the flange-wheel C, showing the edge of the flange, and the shoulders, or notches *d d d d*, and the shaft B, cut off in section.

If it is designed to have the hammers strike the bell all at once, these notches, *d*, are made at equal distances apart, but if they are to strike the bell one after another, in quick succession, the shoulders of the notches are divided, as follows, viz: First, divide the circle of the flange into four equal spaces, (or into as many spaces as there are hammers, as the number may vary from one to six.) Then let one of the space-marks represent the position of the shoulder d^1. Let the next one be set back of the next space-mark one-sixteenth of an inch, d^2, and in like manner d^3 and d^4; and thus, when these shoulders pass over the wires *f*, the hammers will fall from the shoulders, and strike the bell, one after another, in quick succession. If but one wire and hammer are used, the flange of the wheel C may have as many shoulders and notches, *d*, as it will receive, with a proper space between, and thus, by a slight turn of the knob of the bell, the hammer will be acted upon two or three times, and produce almost the same alarm as in the other case.

The arrangement of my door-bell being thus fully described, its application to the door is effected as follows:

First, determine the point on the door where the shaft of the bell is to pass through from the inside, and bore the hole.

Second, take the plate *c c c*, having the hammers attached, and screw it to the inside of the door, so that the hole in the plate shall register with the one bored through the door.

Third, pass the end of the bell-shaft B^1 B^2 through the door, and, from the outside, put on the knob-plate *i*, in the usual way, after which, screw on the set-screw tap *j* until the shoulder on the shaft comes in contact with the plate C; then follow by screwing firmly up against the set-screw tap *j* the knob or handle K K L, which latter rests against the ordinary knob-plate *i*, as seen in fig. 1.

The bell is now in proper position on the door, for operation, and by taking hold of the knob, or handle K K L, and giving it a slight turn to the right, the shoulders *d* of the flange-wheel C, by their pressing against the wires *f*, spring them back until the shoulders *d* pass, when they react and strike the bell, as already shown and described.

Having thus fully described the nature and object of my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. Securing the bell A to the shaft, or handle B, as

described, on the inside of the door, as a revolving door-bell, and the same, in combination with wheel C, constructed as described, and for the purposes set forth.

2. The plate *p*, with wires *f* and hammers *g*, affixed and attached to the inside of the door, and in combination with revolving wheel C and bell A, constructed as described, and operating as set forth.

In testimony that I claim the above-described mode of constructing revolving door-bells, I have hereunto signed my name, this 9th day of January, 1869.

CYRUS W. SALADEE.

Witnesses:

F. G. CLAYTON,

WM. STEWART.