

F. N. COTTLE.
Combined Alarm Bell and Door Knob.

No. 213,547.

Patented Mar. 25, 1879.

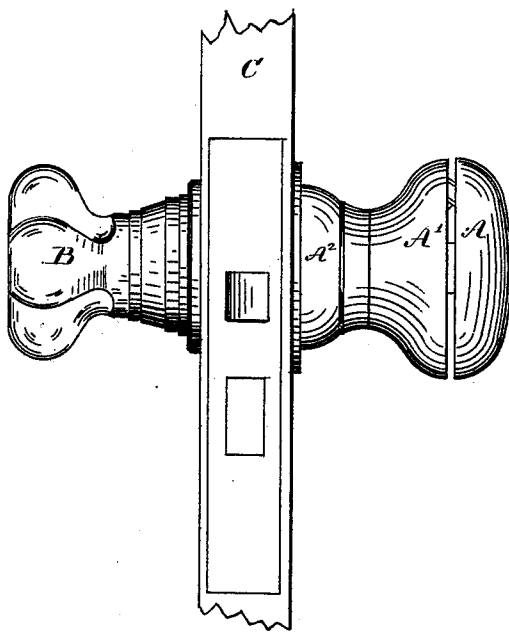


Fig. 1.

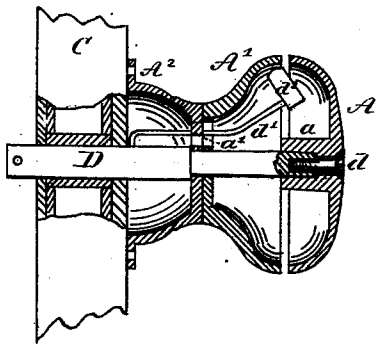


Fig. 2.

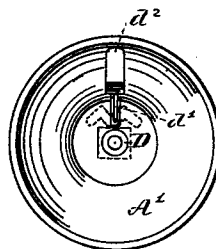


Fig. 3.

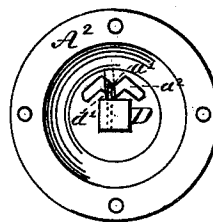


Fig. 4.

WITNESSES.

J. J. Davitt
Chas. M. Reed

INVENTOR

Freeman Norton Cottle

UNITED STATES PATENT OFFICE.

FREEMAN N. COTTLE, OF NEWTON, ASSIGNOR OF THREE-FOURTHS OF HIS RIGHT TO LEVI PARKER, OF SAME PLACE; AND SAID COTTLE AND PARKER ASSIGNORS TO ANDREW J. BAILEY, TRUSTEE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN COMBINED ALARM AND DOOR-KNOB.

Specification forming part of Letters Patent No. **213,547**, dated March 25, 1879; application filed February 20, 1878.

To all whom it may concern:

Be it known that I, FREEMAN NORTON COTTLE, of Newton, in the State of Massachusetts, have invented a Combined Alarm-Bell and Door-Knob, of which the following is a specification:

My invention relates to alarm-bells used upon doors to announce the opening of the door and the entrance of a person into the room. Such bells have heretofore been attached separately to the door or to the door-casing, making an inconvenient and unsightly addition, or have been placed as a part of the lock within the door itself, in which case the sound of the bell was very much deadened.

My invention consists in making the alarm-bell a part of the inner knob of the door, where it is sounded by turning the knob in opening the door. This method of construction renders the whole mechanism compact and neat. It has also the advantage of indicating whether the door to which it is attached is opening from without or from within—in the former case the bell being free to vibrate and giving a loud, clear sound, while in the latter the sound is deadened by the pressure of the hand upon the knob.

In the drawings hereto annexed, to which reference is made as a part of this specification, Figure 1 represents a view of my combined door-knob and bell as attached to a door. Fig. 2 represents a longitudinal section of the same, showing the interior arrangement of the parts. Fig. 3 is an end view of the knob after the removal of the cap A. Fig. 4 is an end view of the base-plate A², showing the slotted opening.

The body of the knob consists of a metallic shell composed of two parts, A and A¹, one of these parts being made of bell-metal or other resonant material, and the two being slightly

separated to permit of the necessary vibration of the metal in ringing. Either part may be used as the bell by making it of the requisite material. Both parts are rigidly attached to the spindle D, which passes through the lock and door, and on the opposite end of which is fastened, in the usual manner, an ordinary door-knob, B.

The base-plate A² is rigidly attached to the door by screws, and is so formed as to constitute a part of the neck of the knob. The striking-hammer \bar{d}^2 is placed within the hollow knob A A¹, so as to strike upon one of its parts, and is fastened to one end of the spring \bar{d}^1 , the other end of the spring being attached to the spindle D. The spring \bar{d}^1 passes through a slotted opening, a^2 , in the base-plate A², the opening being of such a form as to communicate to the spring on turning the knob a reciprocating or vibratory movement, causing the hammer to strike upon the interior walls of the knob A A¹.

I do not claim the specific mechanism for communicating motion from the spindle to the hammer; nor do I limit myself to the use of the precise form of mechanism described for that purpose, as other means, as—for example, the use of cog-wheels in connection with the spring—may be used for that purpose.

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

The combination of an alarm contained within the knob of a door-lock with a bell which forms a part of such knob, and the sound of which is muffled when the knob is grasped by the hand.

FREEMAN NORTON COTTLE.

Witnesses:

J. J. McDAVITT,
CHAS. M. REED.