C. REBSTOCK.

Door-Knob.

No. 162,418. Patented April 20, 1875.

Fig: 1.

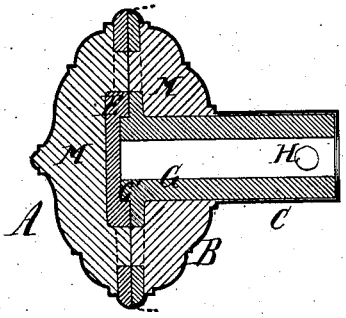


Fig: 4. Fig: 2.

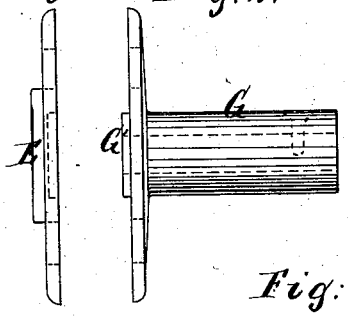
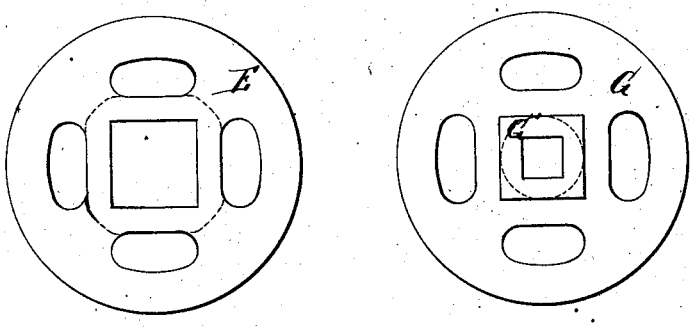


Fig: 5. Fig: 3.



Witnesses:

M. A. Van Namee

Inventor:

C. Rebstock

by his attorney

Thomas D. Stetson.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE

CHRISTIAN REBSTOCK, OF BRIDGEPORT, CONN., ASSIGNOR TO DAVID W. SHERWOOD, CHARLES R. BROTHWELL, AND CHRISTIAN REBSTOCK.

IMPROVEMENT IN DOOR-KNOBS.

Specification forming part of Letters Patent No. **162,418**, dated April 20, 1875; application filed March 4, 1875.

To all whom it may concern:

Be it known that I, CHRISTIAN REBSTOCK, of Bridgeport, Fairfield county, Connecticut, have invented certain Improvements relating to Door-Knobs, of which the following is a specification:

I strike up in two halves a thin brass shell, with the proper decorative devices on each, and finished for the exterior of the knob, and introduce in each half a strong skeleton of cast-iron, formed to lock together, and with the surfaces prepared to adhere to the filling cement; then, holding the parts in the proper positions to form each half, fill the space with a strong earthy cement. Having thus formed each half, I match them together, and attach them by joining their edges. A substantial and highly artistic knob is thus formed at a small cost. It may be subsequently joined to the shank by a screw in the ordinary manner, and may be worked in every respect like a solid metal knob.

The accompanying drawings represent what I consider the best means of carrying out the invention.

Figure 1 is a central section in the plane of the axis through the completed knob. Fig. 2 is a side elevation, and Fig. 3 a face view, of one part of the skeleton. Fig. 4 is an edge view, and Fig. 5 a face view, of the other part of the skeleton.

Similar letters of reference indicate like parts in all the figures.

A is the shell of the outer half, prepared at first with its rim in the position shown by the dotted lines in Fig. 1. B is the shell for the inner half. C is a shell of brass, forming the surface or cover for the shank. The parts B and C are joined by soldering or otherwise. G is a stout skeleton of cast-iron, filling the shank, and spreading out to the extreme periphery of the knob. G′ is a squared projection, which extends out beyond the main face, adapted to engage in a corresponding squared socket in the opposite casting E, which is fitted in the outer half A of the shell, and extends out to its periphery. The castings G G′ E are cleaned and coated with albumen, and placed with the corresponding shells and suitable sustaining molds, (not represented,) the molds fitting against and supporting the exterior surfaces of the shells A B C; that is to say, in one mold, properly formed, I introduce the shell A and casting E, and in another mold, suitably formed, I introduce the shell B C and casting G G′. Liberal openings are left in the castings, as represented, through which the filling cement may be applied. A coating with albumen increases the adhesion of the filling cement to the metal. I coat not only the exteriors of the skeleton, but also the interiors of the shells A B, with albumen, or with a wash in which albumen forms a principal part. I mix a strong mortar—in my experiments I have used Portland cement—and fill the interior of the shells densely with this material in a plastic state. I propose, if preferred, to introduce the plastic cement first, and force the skeleton in upon it, allowing the surplus to gush up through the holes in the skeleton. Both shells being thus filled, the surplus cement struck off smoothly, and the remainder allowed to harden, the parts are removed from the mold, and, either with or without applying further cement between the surfaces, I apply the two halves firmly and tightly together, and fold down the edge of the shell A upon and cause it to embrace the shell B, as represented in Fig. 1. The edge may then be soldered, if preferred; but I have not found it necessary. The exteriors of the shells A B may be burnished and lacquered. A fastening-screw, H, is tapped through the shank in the ordinary manner. It may not be necessary to state that the skeleton G G′ is formed with a smooth interior, adapted to receive a squared or other suitable shaft, (not represented,) and that the skeleton E performs an important function, not only in strengthening the outer half of the knob, and forming, by engaging with the projection G′, a firm resistance against being twisted around on the other part in any emergency, but also by receiving the impact of the end of the shaft when the knob is struck thereon, and thus preventing the end of the shaft from cutting into or disturbing at all the cement filling. The two parts of the skeleton each sustain the exteriors or their respective halves of the knob. They each allow the cement to be

forced in past them, if they are introduced before the cement, or to gush out past them if the cement is introduced first; and in case they engage and lock together by the matching of the squared projection G′ into the corresponding square recess or socket in the skeleton G, they receive and transmit to the shaft on which the whole is mounted, all the force of the hand applied in turning, as also nearly all the lateral force received in case of any accidental blow or other accident to the knob, as when something heavy is hung upon the knob, or a step-ladder or other weight falls against it.

I claim as my invention—

The thin metallic shells A B, filled with cement M, and provided with metallic skeletons, embedded respectively in the cement in each shell, and serving therewith to form a strong and substantial knob, as and for the purposes herein specified.

In testimony whereof I have hereunto set my hand this 26th day of January, 1875, in the presence of two subscribing witnesses.

CHRISTIAN REBSTOCK.

Witnesses:

WM. H. LOEHNERT,

CHARLES W. SHERWOOD.