(No Model.)

W. A. GAY.

DOOR KNOB.

No. 386,243. Patented July 17, 1888.

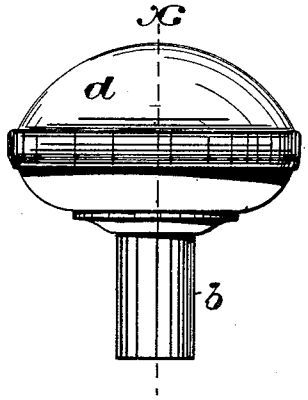


Fig. 2

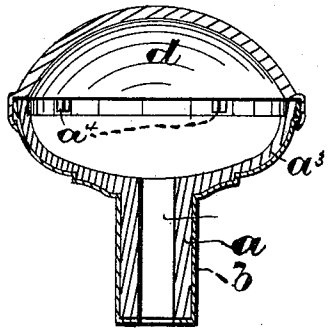


Fig. 3.

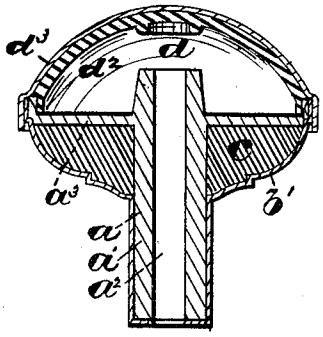


Fig. 4.

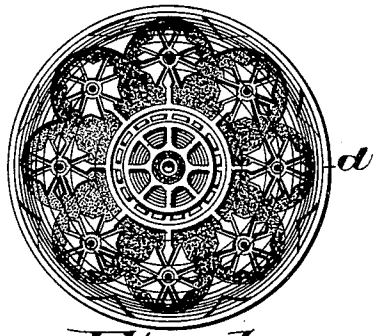


Fig. 1

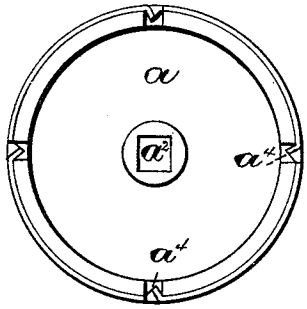


Fig. 5.

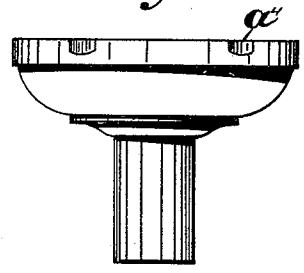


Fig. 6

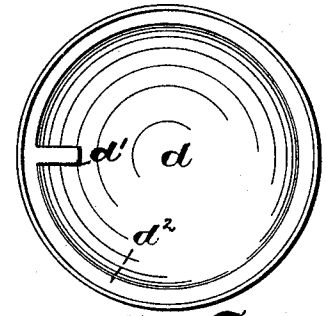


Fig. 7.

WITNESSES: INVENTOR:

C. R. Bennett.
H. E. Reeve

William A. Gay,
BY Drake & Co. ATT'YS.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM A. GAY, OF NEWARK, NEW JERSEY.

DOOR-KNOB.

SPECIFICATION forming part of Letters Patent No. 386,243, dated July 17, 1888.

Application filed September 26, 1887. Serial No. 250,663. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. GAY, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Door-Knobs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to furnish a knob or handle for doors, &c., the outer facing of which will have the effect or ornamentation peculiar to cast metal, and the inner side or back of which will be of sheet metal suitably spun or struck up in proper form, whereby I am enabled to reduce the cost of construction and avoid the defects and objections which have heretofore existed in "covered" or "filled" knobs or handles, as they are technically termed by the trade.

One of the principal objections to the covered or filled knobs or handles as heretofore made is that the outer sheet metal or covering becomes loose upon the inner core or filling, the said outer shell turning around upon the said core or filling when the knob is turned or operated, thereby destroying the efficiency of the knob and preventing it from performing its proper function, to wit: operating the bolt or catch of the lock.

The invention consists in the improved knob having the constructions and arrangements of parts, substantially as will be hereinafter set forth, and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which similar letters of reference indicate corresponding parts in each of the several figures, Figure 1 is a front view of the improved knob. Fig. 2 is a plan of the same. Fig. 3 is a sectional view taken through line *x* of Fig. 2. Fig. 4 is another sectional view showing certain modifications of construction. Fig. 5 is a face view of the back portion of the knob, the front plate being removed therefrom to show the relation of certain parts more clearly. Fig. 6 is a side view of said back portion, and Fig. 7 is an interior face view of the front plate of said knob.

In said drawings, *a* indicates a cast core, of iron or other cheap metal, for the back portion of the knob, said core being provided with a shank, *a'*, which is suitably perforated, as at a^2, to receive the ordinary knob-spindle. Said core is furthermore provided with a flange, a^3, which extends laterally from said spindle, as shown in Figs. 3 and 4, to the periphery of the bulbous portion of the knob, where it is provided with notches, recesses, or slots a^4. The said flange preferably provides a backing for the rear shell, *b*, as in Fig. 3, said flange being preferably cast into the desired shape and serving as a form upon which the shell may be spun or given the desired shape, although the same may be employed as in Fig. 4, in which the filling *c* serves as a backing for the portion *b'* of the shell *b*, the flange holding the said filling in place. The filling may be on both the outer and under sides of the flange a^3. The shell being arranged over the core, either by spinning or otherwise, the two are secured together by impressing the edges of the shell into the recesses or notches a^4, as shown in Figs. 5 and 6.

By securing the two parts together at the periphery of the knob the said parts are held with great firmness, so that it is impossible for them to be separated or wrenched apart in the operation of turning the knob, and thus allowing an independent movement. Upon the back portion of the knob thus provided I arrange a front plate, *d*, on which the ornaments which give finish and beauty to the knob are formed, such ornaments being preferably cast into the front plate to give to the knob the appearance of a solid casting. On the inner side of said front plate is formed a lug, *d'*, which is adapted to enter one of the recesses or notches a^4 and to prevent the front plate from turning independent of the back portion of the knob.

A shoulder, d^2, is formed on the inner side of the front plate just back from the edge thereof, against which the edge of the back portion of the knob rests, so that when the parts are placed together they will, without particular care, be evenly adjusted, or the edge of the front plate will not overlap the back portion more at one side of the knob than at the oppo-

site side. When the said parts d and a^3 b are placed together, the edge of the former is spun or turned down under that of the latter, as in Fig. 3, and said parts are thus prevented from separating, the lug d preventing the front plate from turning pivotally.

I am aware that changes or modifications may be made in the construction and arrangements of the parts. Thus the lug d' may be differently connected and arranged and may enter a notch or socket other than one of those at the periphery of the knob, and in lieu of a front plate of one piece, as in Fig. 3, the front plate may be as in Fig. 4, in which it consists of a backing, d^2, and a front shell, d^3, the latter being prevented from turning on the former by being impressed at suitable points into the recesses, such as a^4. In this last construction the ornament of the front plate may be struck by suitable dies into the shell d^3; but the struck-up ornament differs in quality and ornamental effect from a cast ornament, and I prefer, therefore, the construction illustrated in Figs. 1 and 3, in which the front plate is of cast metal and the ornament has the peculiar effect of ornamentation possessed thereby.

The recesses and projections may be transposed from one plate or part to the other without affecting the invention.

Having thus described the invention, what I claim as new is—

1. In a knob, in combination, a core having a shank and a flange with notches or recesses at its periphery, a shell covering said core and impressed into said notches or recesses, and a front plate, substantially as set forth.

2. The improved knob herein described, combining therein a core having a shank and a notched flange, a shell covering said core and held thereto at its periphery, and a front casting having an ornamental front face and on the rear a lug, d', to engage said notched flange, a shoulder, d^2, and a turned edge overlapping the edge of the shell to conceal the same, and holding the front and back parts of the knob against withdrawal, the lug d', shoulder d^2, and turned edge being integral parts of the ornamental casting, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, this 23d day of September, 1887.

WILLIAM A. GAY.

Witnesses:
CHARLES H. PELL,
FRED. S. ADAMS.