2 Sheets—Sheet 1.

M. C. NILES.

ATTACHING KNOB-ROSES TO DOORS.

No. 181,705. Patented Aug. 29, 1876.

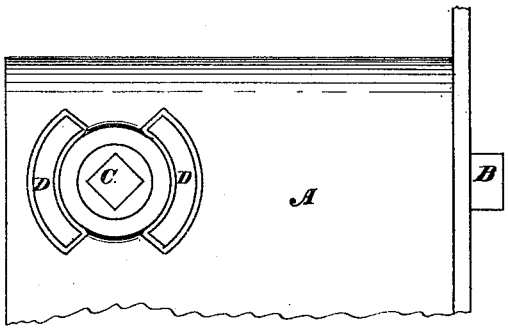

Fig. 1

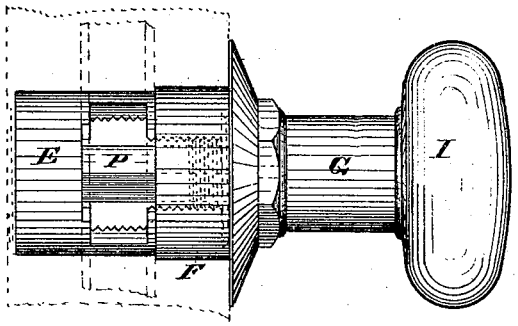

Fig. 2

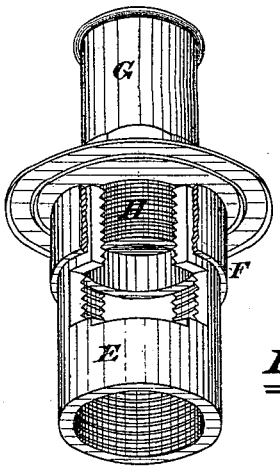

Fig. 3

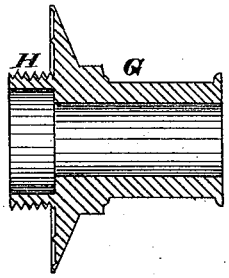

Fig. 4

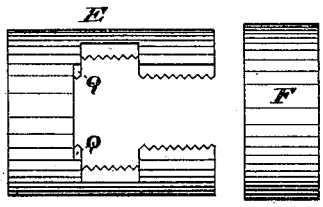

Fig. 5

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Fig. 6

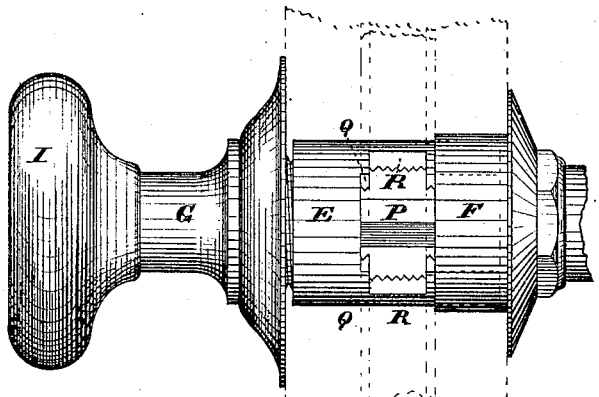


Fig. 7

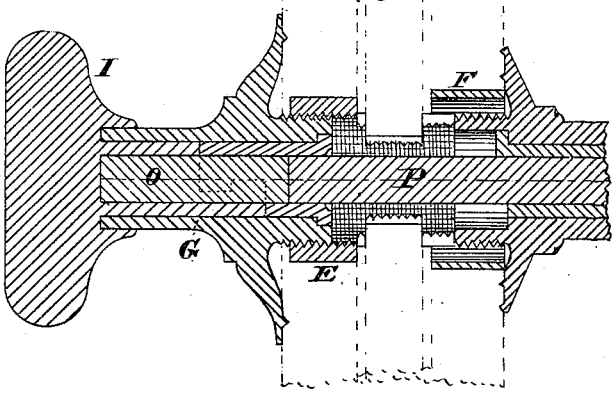
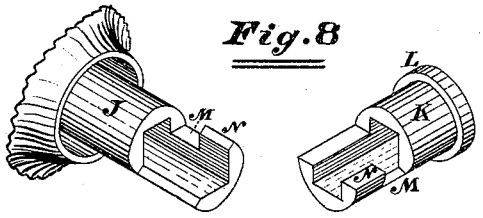


Fig. 8



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UNITED STATES PATENT OFFICE.

MILTON C. NILES, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN ATTACHING KNOB-ROSES TO DOORS.

Specification forming part of Letters Patent No. **181,705**, dated August 29, 1876; application filed May 27, 1876.

To all whom it may concern:

Be it known that I, MILTON C. NILES, of Chicago, in the county of Cook and State of Illinois have invented a new and useful Improvement in Door Lock and Knob, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents the side view of my lock without the knob; Fig. 2, a side view of one of the knobs as applied to the lock, a section of the door being represented by dotted lines. Fig. 3 shows a detached view of the rose and the screw-threaded tube by which it is secured in place. Fig. 4 represents a section of the rose detached; Fig. 5, a screw-threaded tube; Fig. 6, a side view of the knob and its attachment to the lock, and showing by dotted lines the lock and door. Fig. 7 is a vertical central section of the same, and Fig. 8 shows the detached pieces which make the shank of the knob.

My invention relates to that class of door-locks known as "mortise-locks;" and consists in the novel method of attaching the roses and knobs to the lock and door, whereby they are firmly held in place, and at the same time they are made in detachable parts, so that the knob can be removed and the knob displaced.

In the accompanying drawings, A represents a door-lock, having a spring catch or latch, B. Through this a spindle passes at C, and whereby the latch is operated to open the door. D D are slits constructed through the lock-case in such a manner as leaves the bearing of the hub of the lock on the lock-case undisturbed, and allows the free operation of the hub, and also allows the recessed or slitted tube E to pass through the lock, so that the roses are both secured to it—one on one side of the door, the other upon the opposite side. F is a band, which slips over the slitted end of the tube E after it is put through the lock, to prevent it from spreading or springing apart. G represents the rose, which is secured to the door by its screw-threaded shank H being screwed to the tube E. I is the door-knob, having a hollow shank, made in two parts—one part, J, being a part of the knob, and the other part, K, being a separate piece. This part K has a projecting ring or lug, L, which fits in a recess in the rose and firmly holds the knob in place, while permitting it to turn in the rose. The parts K and J of the knob-shank have recesses and projections M and N, which fit into each other, as clearly shown by dotted lines in Fig. 7, and are held together by a loose piece or slug, O, which is slipped into the shank after the pieces are put together.

It will be observed that the knob is secured to the rose by slipping the parts K and J therein from opposite directions, and then turning them so as to interlock, as shown in Fig. 7, and locking them by inserting the square piece O. This makes it impossible to remove the knob from the rose without first removing the rose from the lock and taking out the piece O from the interior of the knob-shank. When that is done the two pieces K and J can be slightly turned, so that the projections M and N will pass each other and admit of their separation.

The loose piece O does not entirely fill the shank of the knob, but leaves a space for the end of the spindle P that passes through the hole C in the lock, and operates the latch B as the knob I is turned. This spindle passes loosely through the lock into the shanks of the knobs on each side of the door, and is operated by either of them. There is a shoulder, Q, which rests against the lock-plate, and prevents the tube E from turning, while the recesses R R afford room for the operative parts of the lock to work. By this special construction I am enabled to make the slits D D in the lock longer than I otherwise could, and have wide sections of the tube E pass through them, thereby making a wide screw-threaded bearing, to attach the rose upon that side of the lock. By means of the screw-threaded tube E passing through the lock, I am enabled to secure the roses to the tube, so that one pulls against the other as force is applied to open the door.

I do not wish to limit myself to a slitted tube, E, for it will readily be seen that separate pieces may be used, with bands F applied at both ends to keep them in place. Neither do I wish to confine myself to the construction of the tube E with the shoulders Q Q and the recesses R R, for it will be seen

that the roses may be attached to the tube without said shoulders and recesses.

Having described the construction and operation of my invention, what I claim, and desire to secure by Letters Patent, is—

1. The hollow shank, composed of two parts, K and J, interlocked and secured together by a piece, O, substantially as described.

2. The door-lock, constructed with a slit or slits on each side of the lock, in such a manner as will allow the tube E to pass through the slits, over the hub, and through the lock, and permit of the free operation of the hub and parts of the lock by which the latch is moved, substantially as described.

3. The combination of a lock, A, constructed with slots D in both plates of the case, arranged opposite to each other, and a tube, E, divided by slits extending from one end thereof nearly to the other, substantially as and for the purpose set forth.

4. The combination of a lock, A, constructed with slots D in both plates of the case, arranged opposite to each other, a tube, E, divided by slits extending from one end thereof nearly to the other, and roses G, attached to the ends of the tube on opposite sides of the lock, substantially as and for the purposes set forth.

5. The combination of a lock-case, having slots D in both plates thereof, arranged opposite to each other, a tube, E, slitted as described, and passing entirely through the lock-case from side to side, and a hub of ordinary construction, supported by the plates of the lock-case, and within the tube, substantially as set forth.

6. The combination of the rose G, the knob I, having a shank made in two parts, K and J, and the piece or plug O, substantially as specified and shown.

MILTON C. NILES.

Witnesses:
L. A. BUNTING,
W. S. BAKER.