

(Model.)

W. McCOMBIE & T. J. MORGAN.
Car Door Latch.

No. 238,047.

Patented Feb. 22, 1881.

Fig. 1

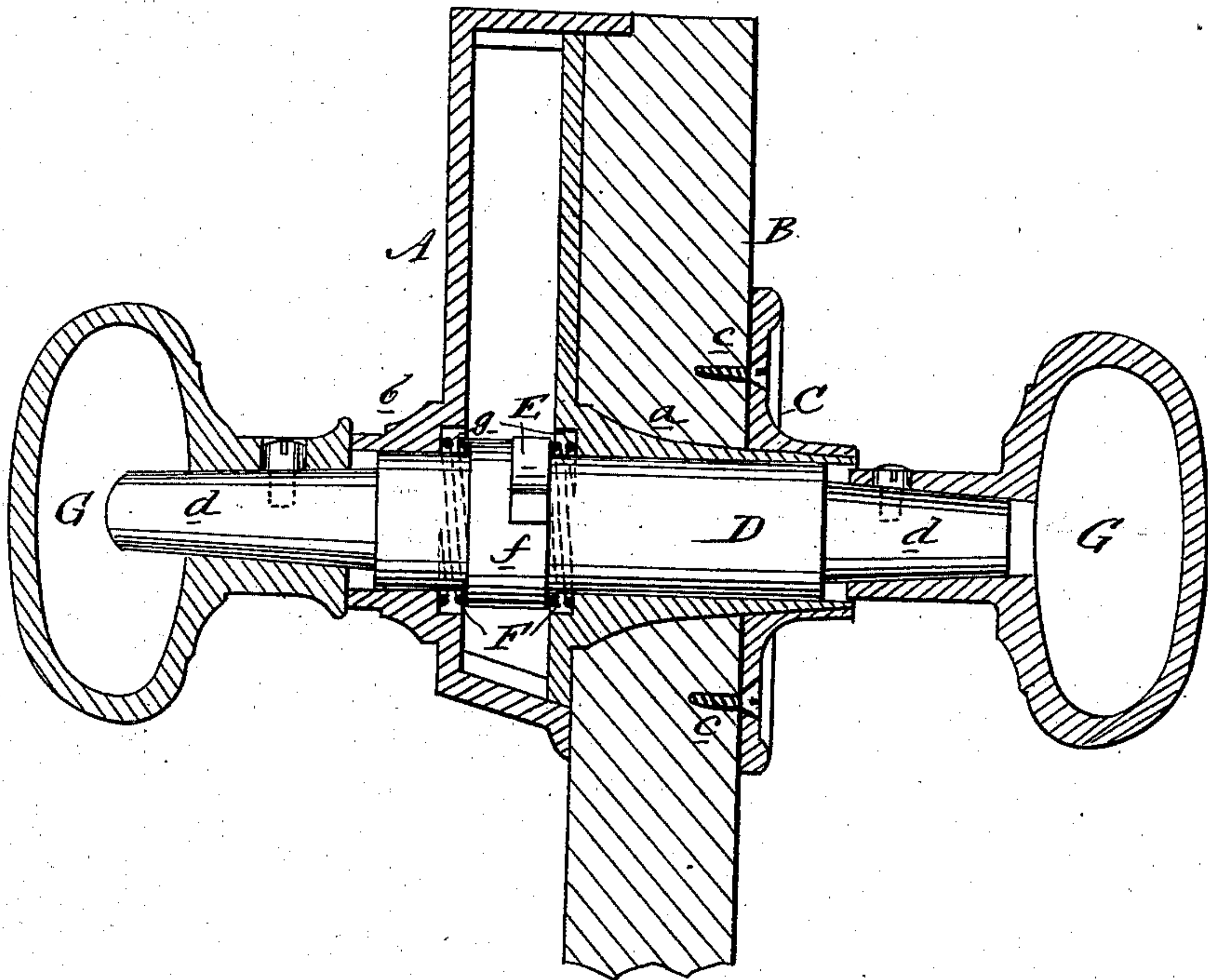
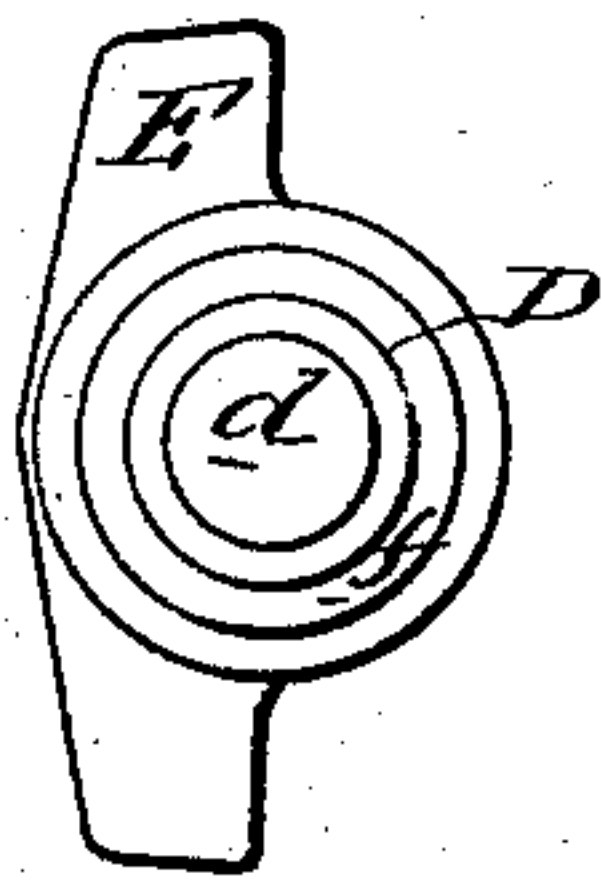


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM McCOMBIE AND THOMAS J. MORGAN, OF CHICAGO, ILLINOIS.

CAR-DOOR LATCH.

SPECIFICATION forming part of Letters Patent No. 238,047, dated February 22, 1881.

Application filed August 18, 1880. (Model.)

To all whom it may concern:

Be it known that we, WILLIAM McCOMBIE and THOMAS J. MORGAN, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Locks, of which the following is a specification.

The object of this invention is to construct a lock, especially designed for cars, that is easy of repair, of superior durability, and that can be attached to a car-door in less time than any other lock in use.

Figure 1 is a sectional elevation of the lock in position on a door. Fig. 2 is an end elevation of the spindle and lever.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the case of the lock, having on one face a tapering thimble or collar, *a*, which extends through the door, (represented by B,) and on the other face a shorter corresponding collar, *b*.

C represents a rose, fitted over the projecting end of the collar *a* and secured to the door B by screws *c*.

D is the lock-spindle, provided with tapering ends *d d*, that may be plain, as shown in the drawings, or screw-threaded and passed through the case A and collars *a b*.

E is the lever designed to move the latch, (not shown,) made of the same piece with the spindle D, and located on an enlargement, *f*, of said spindle D, which enlargement or ring *f* is designed to assist in retaining the annular springs F F in place. These springs or spring-cushions F F are made to encircle the spindle D on either side of the ring *f*, and annular depressions *g g* are formed in the case A to admit said springs F F, which springs

may be of coiled wire, rubber, or other elastic material.

G G are the knobs, fitted or screwed on the tapering ends of the spindle D, and secured thereto by set-screws *h h* or other suitable devices.

This lock is composed of few and simple parts, designed with a view to superior strength and durability, and its springs enable it to endure severe jars without injury.

The objection to a straight bearing for the spindle is, that it is difficult to fit securely, and if this is accomplished it is difficult to take out the spindle without damage to the knobs or lock. These objections are completely overcome by our taper bearing extending through the door.

We are aware that springs have been used to take up the slack between the knobs and knob-plate; but our spring-cushion is within the case, so as to protect the lock or latch from injury when the door of a car is violently closed or slammed.

What we claim as new and of our invention is—

A car-door lock consisting of the case A, having collars *a b*, the former extending through the door, and annular depressions *g g*, the rose C, fitting over the projection of collar *a*, the knob-spindle D, having tapered ends *d d*, to receive knobs G, the enlargement *f*, with the latch-mover E, and an annular spring, F, on each side of said enlargement, as shown and described.

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Witnesses:

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