

No. 734,117.

PATENTED JULY 21, 1903.

C. J. CALEY.
KNOB SPINDLE.

APPLICATION FILED APR. 25, 1903.

NO MODEL.

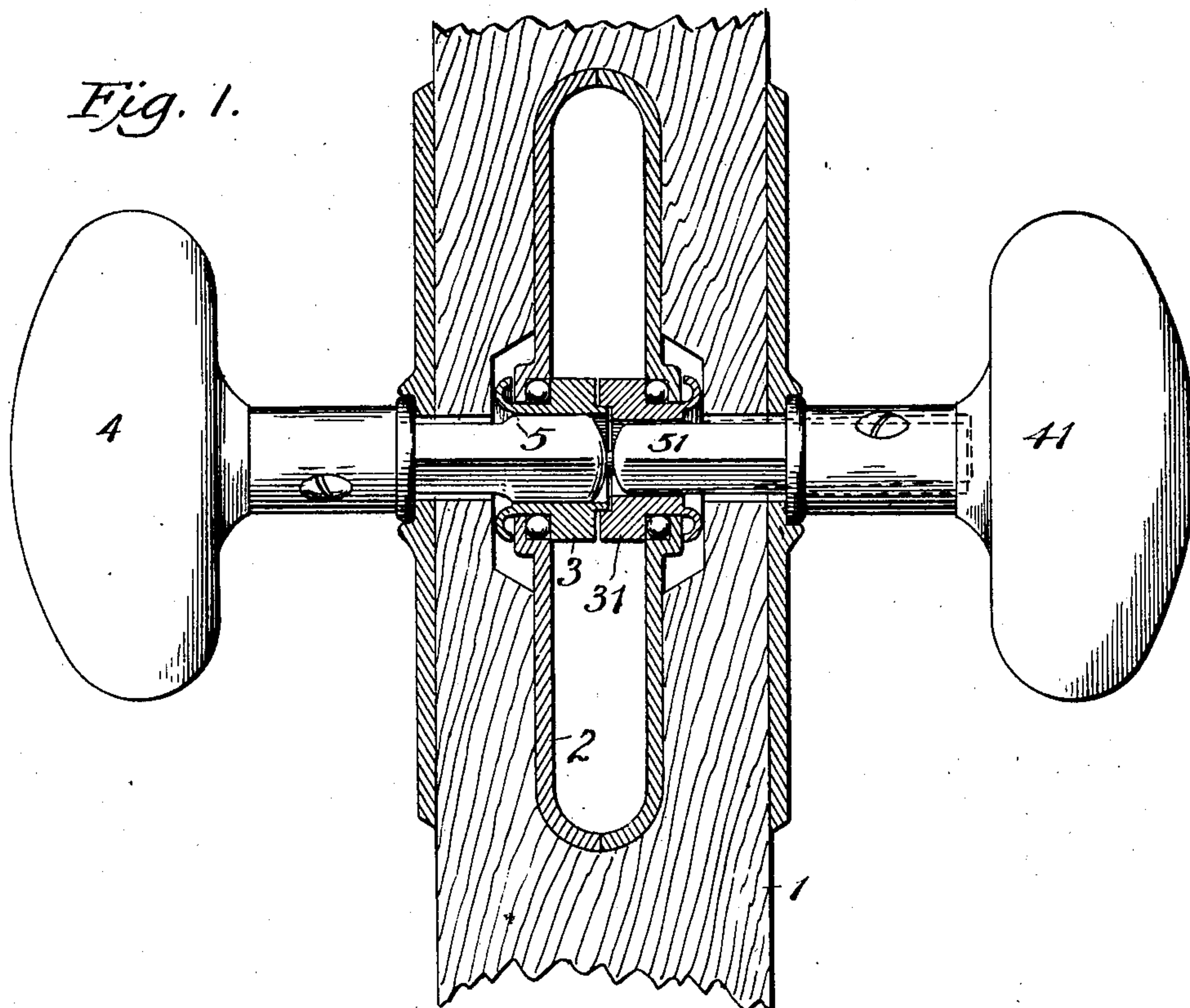
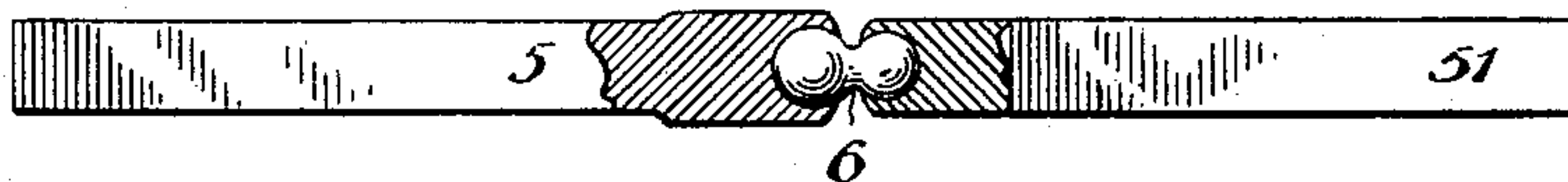


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES J. CALEY, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO RUSSELL & ERWIN MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

KNOB-SPINDLE.

SPECIFICATION forming part of Letters Patent No. 734,117, dated July 21, 1903.

Application filed April 25, 1903. Serial No. 154,240. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. CALEY, a citizen of the United States, residing at New Britain, Hartford county, Connecticut, have invented certain new and useful Improvements in Knob-Spindles, of which the following is a full, clear, and exact description.

My invention relates to improvements in door locks and latches, and particularly to what is known as the "knob-spindle."

It is the main purpose of my invention to provide an improvement in the spindle portion of a door lock or latch, so that the same will have in addition to a swivel movement a compensating movement. By this improvement if it happens that a door-lock is not fitted to a door so that the case will stand exactly parallel with the surface of the door the knob-spindle may, nevertheless, be properly fitted to the outside of the door and enter the lock-case in a slightly-oblique line and operate in the hub without binding or cramping.

In the accompanying drawings, Figure 1 is a vertical section of a portion of a door and of parts of a lock or latch fitted with a spindle constructed to embody my invention. Fig. 2 is an elevation, partly in section, of the spindle detached.

1 is a portion of a door.

2 is a lock-case.

3 31 are hub-sections capable of being independently revolved or turned to operate those parts of a lock or latch which are usually connected therewith. These hub-sections may be revolved independently by means of knobs 4 41.

5 51 are two sections of a spindle which I term a "compensating swivel-spindle." The inner ends of these spindle-sections 5 51 are connected by means of a coupling 6. This coupling is best seen in Fig. 2, in which it will be observed that it serves as a double-headed link, having somewhat the appearance of a miniature dumb-bell, in that the ends are spherical and are united by a narrow construction. This coupling 6 permits of a universal movement of the spindle-sections 5 51—that is, they may be rotated independently of each other and they may also

tilt or swing out of line. In practice one or both of the hub-sections may have a cavity to receive the spindle, and said cavity is preferably slightly larger than the spindle, so as to allow of the compensating movement. Obviously this oscillatory movement of one or both of the spindle-sections may be permitted by other arrangements without departing from the spirit or scope of the invention. In the drawings, Fig. 1, I have shown the spindle-passage of the section 51 slightly larger than the spindle end located therein. Of course the other section might be similarly enlarged, if desirable.

What I claim is—

1. An improvement in door locks and latches comprising, a spindle consisting of a plurality of sections arranged end to end and a coupling connecting said ends to permit one of said spindle-sections to oscillate relatively to the other.

2. An improvement in door locks and latches comprising, a spindle consisting of a plurality of sections arranged end to end, and a coupling connecting said ends and arranged to permit one of the said spindle-sections to swivel and oscillate relatively to the other.

3. An improvement in locks and latches comprising, a spindle consisting of a plurality of sections arranged end to end, and a universal coupling loosely connecting said ends to permit each spindle-section to swivel or oscillate relatively to the other.

4. An improvement in locks and latches comprising a spindle consisting of a plurality of sections arranged end to end and a universal coupling connecting said ends to permit one of the said sections to oscillate relatively to the other, said universal coupling including two heads united by a connection of smaller diameter, said heads being held in bearings in the adjacent ends of said spindle-sections.

Signed at New Britain, Connecticut, this 23d day of April, 1903.

CHAS. J. CALEY.

Witnesses:

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