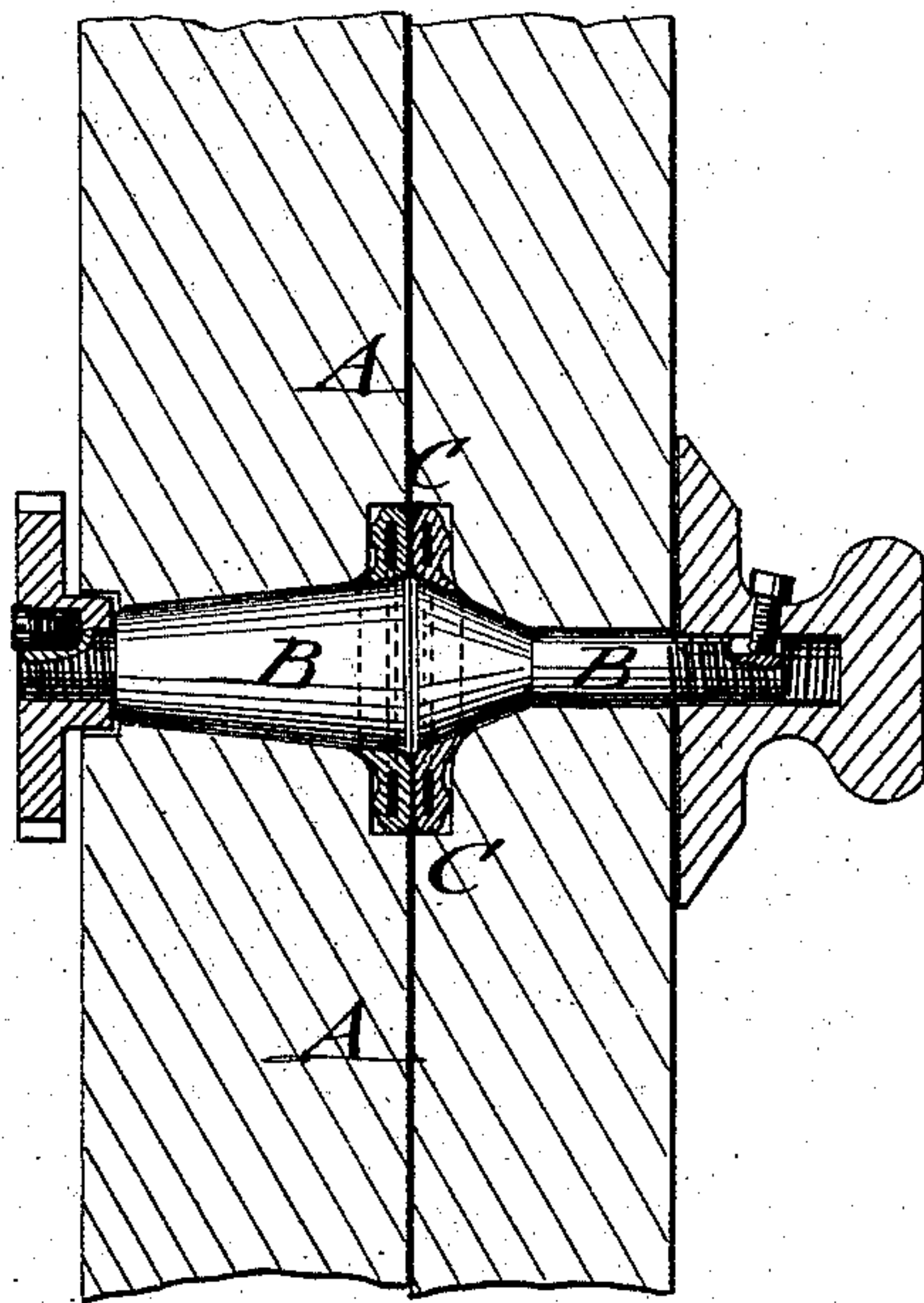


A. KIRKS.
Lock-Spindles.

No. 156,738.

Patented Nov. 10, 1874.



WITNESSES:

A. W. Almquist
A. F. Terry

INVENTOR:

A. Kirks
Mumford

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ALBERT KIRKS, OF CANTON, OHIO.

IMPROVEMENT IN LOCK-SPINDLES.

Specification forming part of Letters Patent No. **156,738**, dated November 10, 1874; application filed August 15, 1874.

To all whom it may concern:

Be it known that I, ALBERT KIRKS, of Canton, Stark county, Ohio, have invented a new and Improved Safe-Spindle, of which the following is a specification:

The accompanying drawing represents my improvement applied to a safe-door.

The invention consists in the construction and arrangement of packing-rings in connection with the conical portion of the lock-spindle and the joint of the laminæ composing the safe-door, as hereinafter described.

In the drawing, A represents the door of a burglar-proof safe; B, the spindle, which is made, as indicated in the drawing, of double conical shape, with cylindrical front part of smaller diameter, to which the knob is screwed in the usual manner. Tightly-fitting rings C, of rubber or other elastic material, are placed on the spindle B at the part of largest diameter, being the point from which the cones taper in opposite directions. One of said rings is applied so as to embrace one of the cones, the other the opposite cone, to form a tight joint. The rings C are of suitable width and strength, and are seated in corresponding recesses of the inner wall-plates, being firmly

packed by the connection of the same, so as to form an air-tight socket for the spindle. This prevents the breaking open of the safe by drawing off the air with an air-pump and introducing fine powder or other explosive to the safe or lock with the current of the returning air. It gives, furthermore, the spindle an easy yet noiseless motion in its bearings in the door.

I do not claim a conical spindle nor the application of packing to spindles in general, for the general purposes hereinbefore indicated.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

In combination with the spindle having a double conical form at or about the center, and the recessed laminæ of the safe-door, the elastic packing-rings C, applied to said spindle on opposite sides of the point of largest diameter, as shown and described, for the purpose specified.

ALBERT KIRKS.

Witnesses:

CARL ALBRECHT,
LOUIS SCHAEFER.