



# UNITED STATES PATENT OFFICE.

WILLIAM J. ALSTON, OF NOLENSVILLE, TENNESSEE.

## RING-LOCK.

Specification of Letters Patent No. 22,613, dated January 18, 1859.

To all whom it may concern:

Be it known that I, W. J. ALSTON, of Nolensville, Williamson county, State of Tennessee, have invented certain new and useful Improvements in Combination Ring-Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents an elevation of the lock. Fig. 2 represents the mandrel showing the position of the binding spring. Fig. 3 represents a longitudinal section through the lock, on the line *x x* of Fig. 1. Fig. 4 represents a transverse section on the line *y, y*, of Fig. 1. Fig. 5 represents a portion of the mandrel and bolt. Fig. 6 represents a side view of one of the inner rings; and, Fig. 7 represents the bolt of the lock.

In "the ring lock" as heretofore constructed, a difficulty is experienced in adjusting and retaining the rings in the proper positions to slide the bolt. This difficulty arises from the liability of a ring being turned while moving those on either side; as the friction or adhesion between the ends of the rings is greater than the friction of the rings on the barrel; hence, when a ring is set to the proper position, it is liable to be turned unless held, while those on either side are being adjusted.

To overcome this defect in "ring locks," is the object of my improvement, and my invention for effecting this object consists in arranging between the inner ring and the barrel of the lock, "a friction spring," so that the adhesion of the ring to the barrel is made greater than the friction between the adjacent ends of the rings, by which means on turning a ring, those on either side are not liable to be moved by it as heretofore.

In the accompanying drawing is represented a "ring lock," embracing my improvements, which consist of a slotted barrel (A) with a central spindle (B) armed with projecting studs (*a*) which pass through the slot in the barrel, and project above its surface. On the barrel are arranged a double series of rings (C, D) one within the other; the interior rings (C) have a portion of their inner surface removed, forming a

transverse groove (*b*) to receive the projecting stud on the spindle, and allow the rings being turned on the barrel. A longitudinal slot (*c*) is made on the interior of the ring to admit the stud passing through when the bolt is moved endwise, and a series of longitudinal grooves (*d*), are also cut in the periphery of the inner ring to fit a projecting rib on (*e*) the outer ring, which enters out of these grooves, connecting the rings, so that the turning of the outer also turns the inner.

To increase the friction between the inner ring and the barrel, curved springs, (*f*) are attached to the barrel, which press upon the small part of the ring, and on this spring is a small dog (*g*) which enters light notches (*h*) in the ring opposite the grooves of the periphery, and holds the rings with sufficient force to prevent their being turned, in turning the adjacent rings. The rings are prevented from sliding endwise on the barrel, and the bolt from being drawn out, by end pieces (E, F); and to the piece (F) a shackle (G) is hinged, the opposite end of which enters a recess in the piece (E), and is locked in the usual manner by the sliding of the bolt. I do not confine myself to the form or arrangement of this spring for increasing the friction between the inner ring and barrel, or the manner in which acts on the inner ring to increase its adhesion, as it may be arranged to act on the side, instead of upon the interior; or it may be connected with the bolt and pass through the barrel, and thus act on the ring, or attached to the inner side of the barrel and act on the ring through openings made in the barrel.

Having thus described my improvement in ring locks, what I claim therein as new, and desire to secure by Letters Patent, is—

The friction springs, arranged substantially as described, in combination with the inner rings of the lock, for the purpose set forth.

In testimony whereof I have subscribed my name.

W. J. ALSTON.

Witnesses:

RANDAL M. EWING,  
JOHN Z. WREN.