

*Bit Stock.*

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*№ 44,823.*

*Patented Oct. 25, 1864.*

Fig. 1

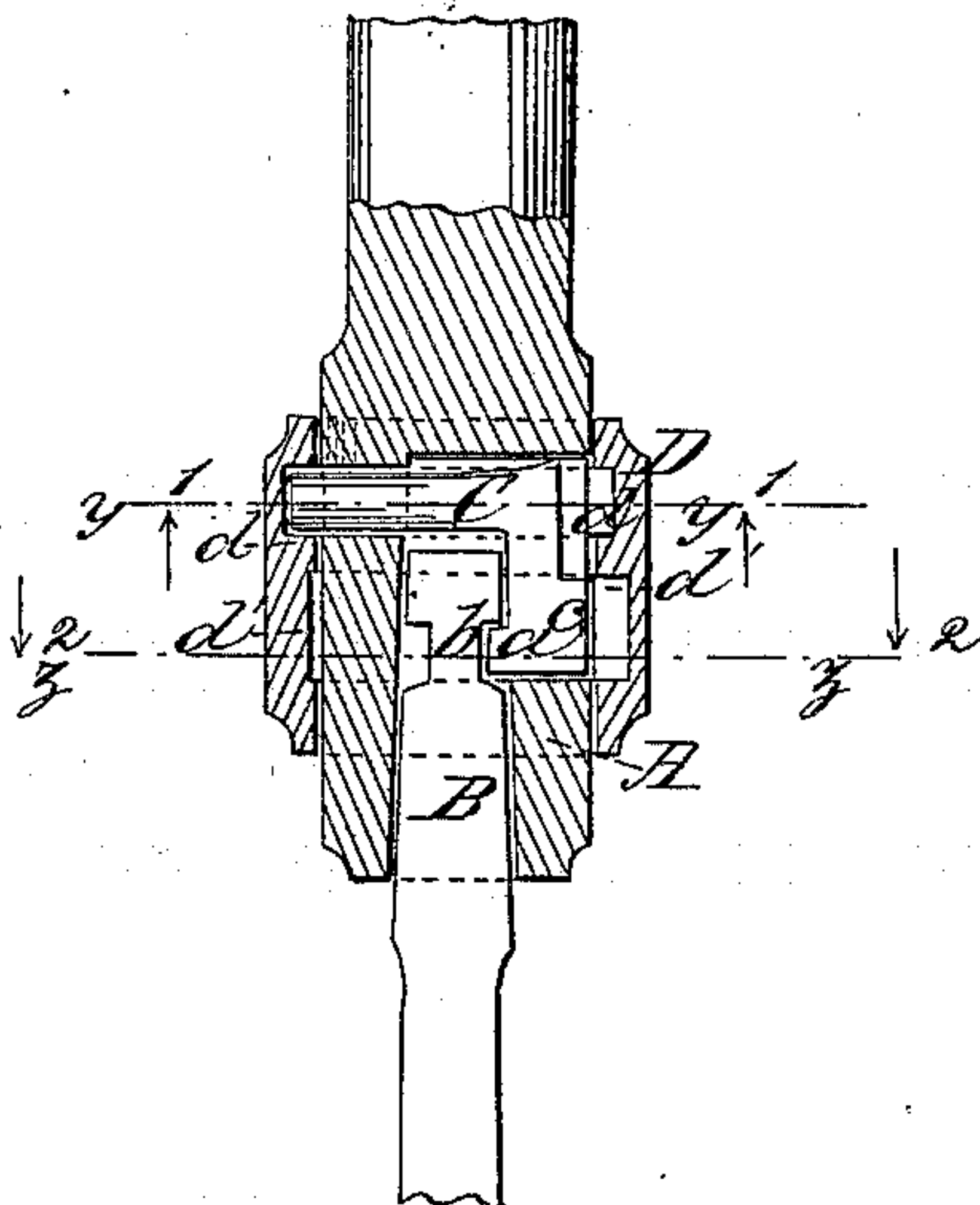


Fig. 2.

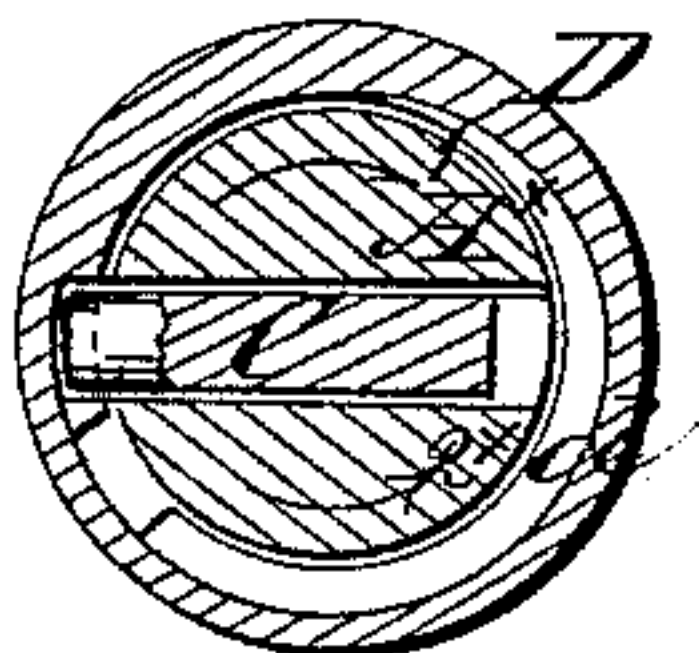
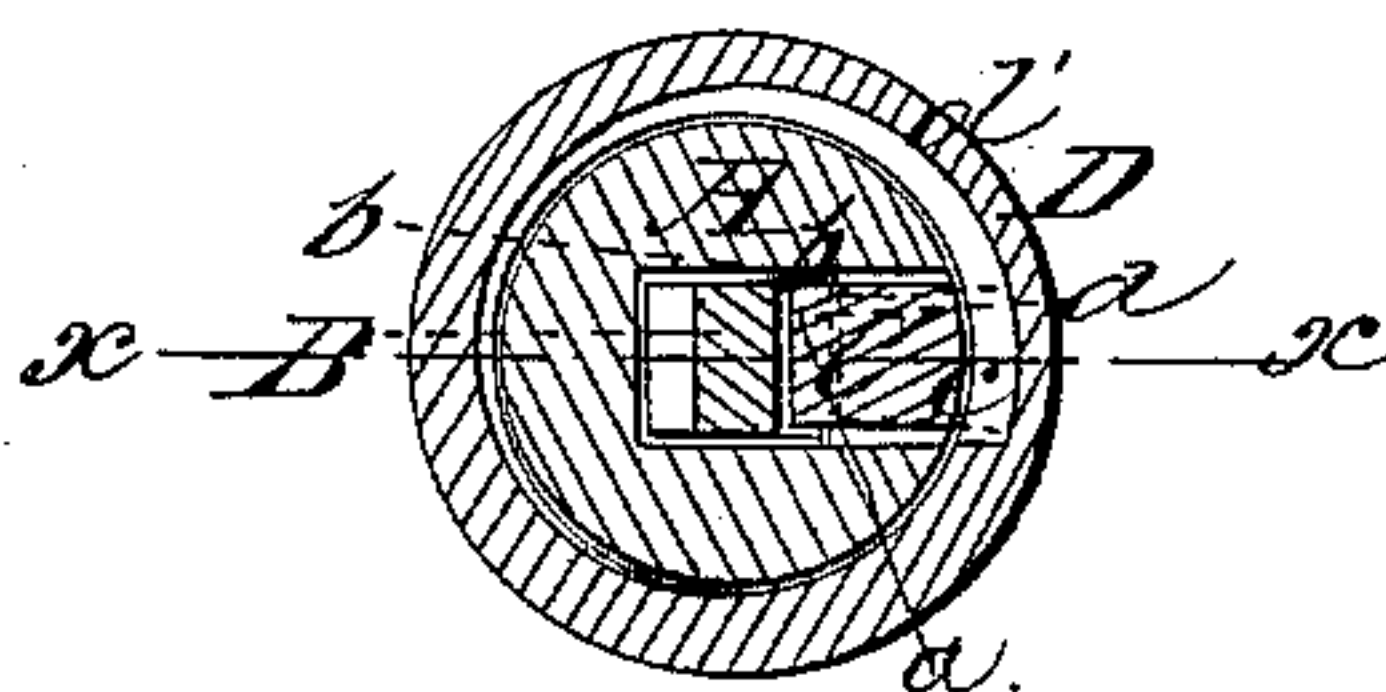


Fig. 3



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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN MODE OF SECURING BITS IN BRACES.

Specification forming parts of Letters Patent No. 44,823, dated October 25, 1864.

### CASE B.

*To all whom it may concern:*

Be it known that I, C. B. ROSE, of Sunderland, in the county of Franklin and State of Massachusetts, have invented a new and Improved Mode of Securing Bits in Braces; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a longitudinal section of my invention, taken in the line *x x*, Fig. 3; Fig. 2, a transverse section of the same, looking in the direction indicated by the arrows 1, Fig. 1, and taken in the line *y y*; Fig. 3, a transverse section of the same, looking in the direction indicated by the arrows 2, Fig. 1, and taken in the line *z z*.

Similar letters of reference indicate like parts.

This invention relates to a new and improved fastening for securing bits and braces; and it consists in the employment or use of a sliding bolt or latch, in connection with a double cam formed within a collar, which is fitted on the end of the brace and arranged so as to operate on the bolt or latch to secure the shank of the bit in the brace and release it therefrom by simply turning the collar. The arrangement is a positive one, no spring being employed or other parts which are liable to become deranged by use.

A represents the end of a brace, in which the shank B of the bit is secured, said shank being of taper square form, and fitting in a corresponding shaped hole in the end of the brace.

C is a sliding bolt or latch, which is fitted transversely in the end A of the brace. This bolt or latch is of L form, and is somewhat greater in length than the diameter of the end A of the brace, so that when one end of the bolt or latch is flush with the exterior of A the other end will project beyond it. (See Figs. 1 and 2.)

On the inner side of one end of the latch or bolt C there is a lip or projection, *a*, which, when shoved inward by the movement of the bolt or latch in one direction, fits in a recess,

*b*, in the shank B, and secures the latter in the end A of the brace, as shown in Fig. 1. The end *c* of the bolt or latch at the outer side or opposite to where the lip *a* is formed, projects outward from the other portion of said end, to form an external lip, as shown clearly in Fig. 1.

D is a collar, which is fitted on the end A of the brace and allowed to turn freely on it. This collar has two eccentric grooves, *d d'*, made circumferentially in it—one of which, *d*, is in line with one end of the bolt or latch and the other end in line with the other groove, *d'*. These grooves are in reverse positions, as shown in Figs. 2 and 3, and it is through them that the bolt or latch is operated when the collar D is turned. The groove *d'*, when the collar D is turned in the direction indicated by the arrow 1\*, forces the lip *a* out from the recess *b* of the shank, the opposite end of the bolt or latch being forced into the deep portion of groove *d'*, and when the collar D is turned in the opposite direction, as indicated by the red arrow 2\*, the groove *d* will press the lip *a* into the *b* of shank B.

The collar D may be slipped on and off from the end B of the brace by having a notch or recess made longitudinally in one end of it, to receive one end of the bolt or latch and admit of the collar being shoved over it.

Thus, by this simple arrangement, I obtain an efficient bit-fastening without the aid of a spring, the bolt or latch being operated by a positive movement.

The device may be economically constructed or manufactured, and there are no parts liable to become deranged by use.

I claim as new and desire to secure by Letters Patent—

The sliding bolt or latch C, in combination with the collar D, provided with the two cams or eccentric grooves *d d'*, all being arranged and applied to the end A of the brace, to operate in the manner substantially as and for the purpose set forth.

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Witnesses:

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