

W. M. Gray.

Ratchet Bed-Key.

N<sup>o</sup> 71871

Patented Dec. 10, 1867.

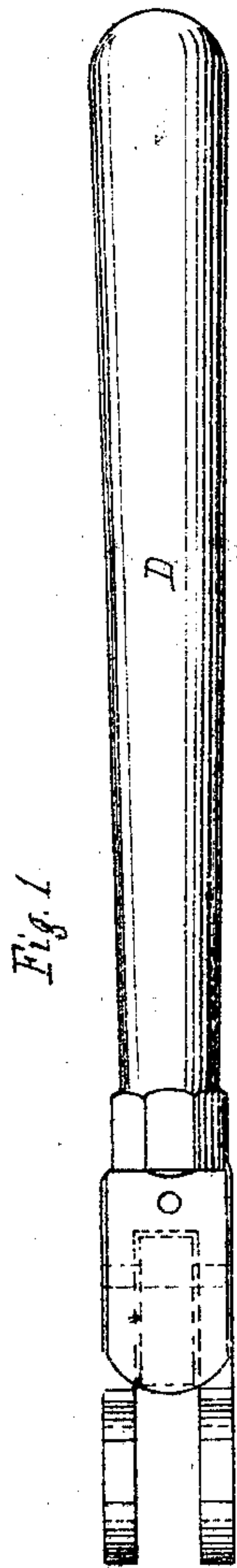


Fig. 1

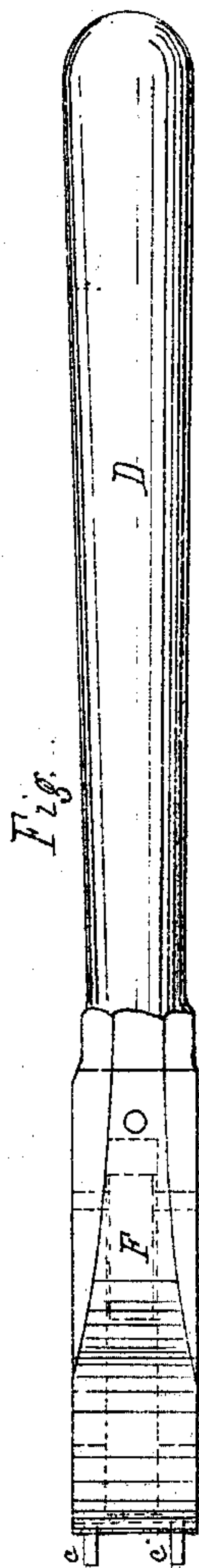


Fig. 2

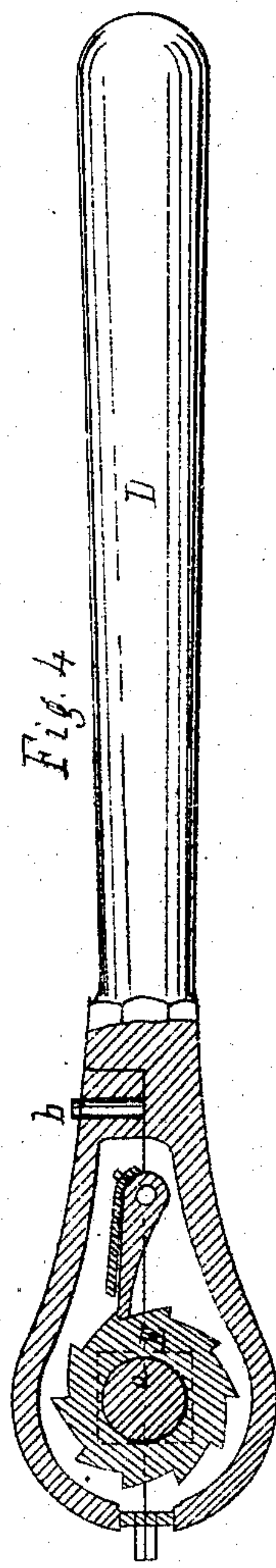


Fig. 4

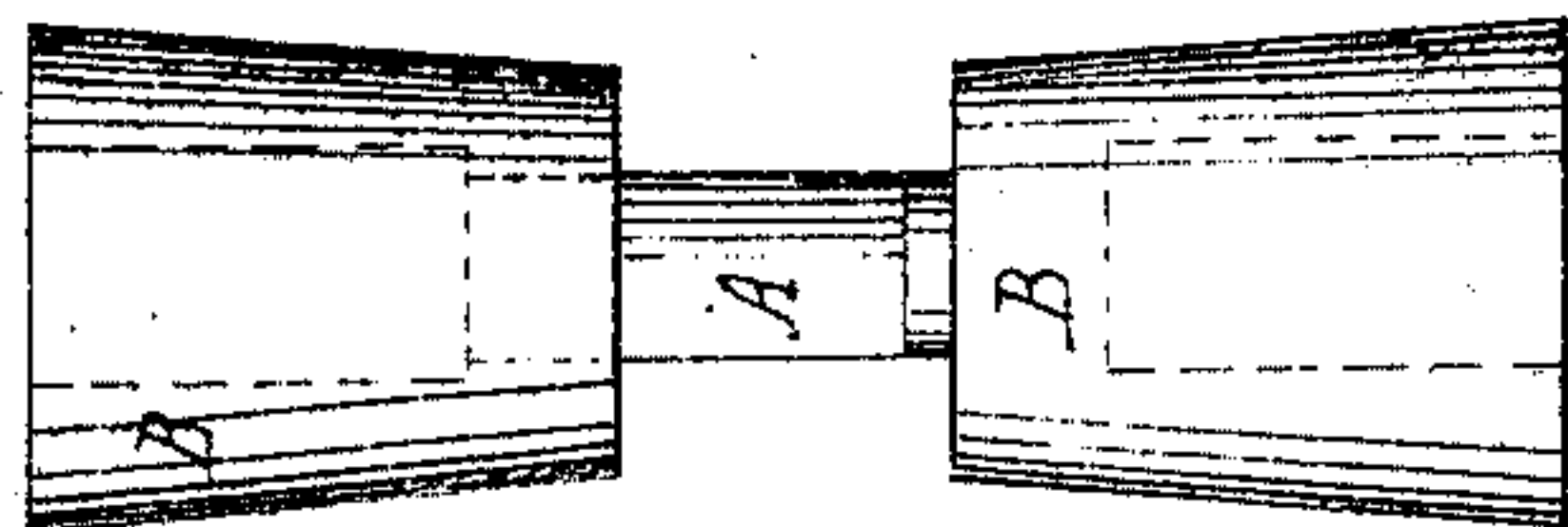


Fig. 3

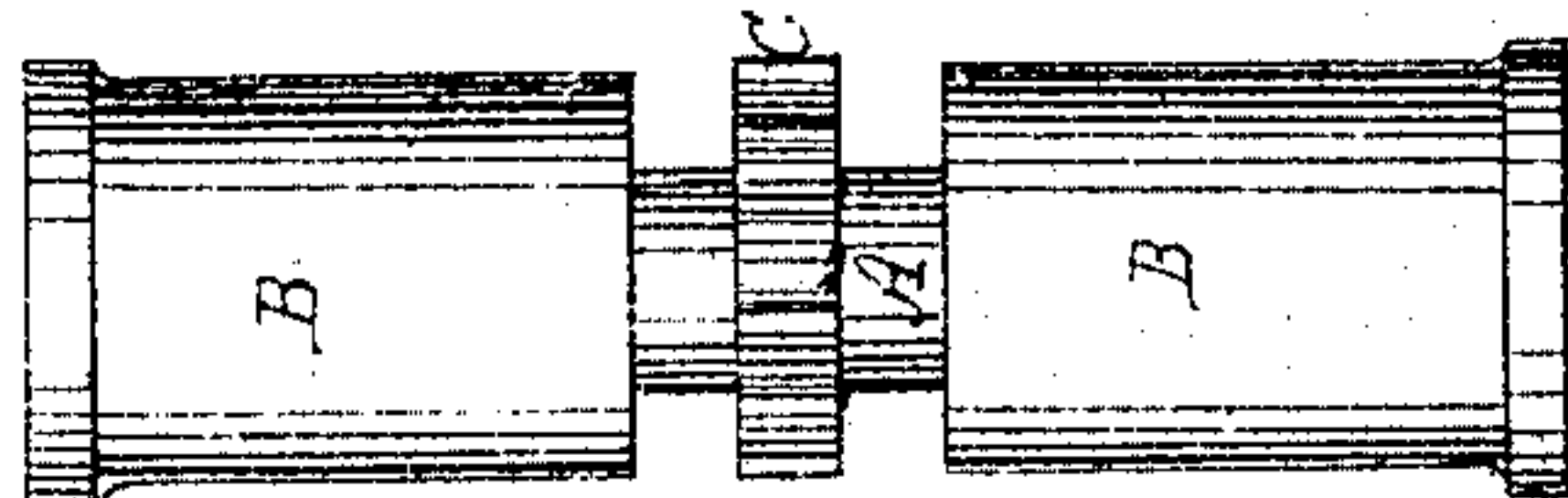


Fig. 5

Witnesses  
G. O. Gordon  
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# United States Patent Office.

WILLIAM M. GRAY, OF BROOKLYN, NEW YORK.

*Letters Patent No. 71,871, dated December 10, 1867.*

## IMPROVED RATCHET BED-KEY.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM M. GRAY, of Brooklyn, Kings county, New York, have invented, made, and applied to use, certain new and useful Improvements in the Construction of Ratchet Bed-Keys; and I do declare the following to be a full, clear, and correct description of my invention, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, in which—

Figures 1 and 2 are views showing the present mode of constructing ratchet bed-keys.

Figure 3, a top view of the handle of my improved ratchet bed-key.

Figure 4, a sectional view of the same.

Figure 5, a view of the barrels, ratchet-wheel, and spindle, made in one piece.

In the drawings, like parts of the invention are designated by the same letters of reference.

The nature of my invention consists in the construction and operation of an improved ratchet bed-key, as more fully hereinafter set forth.

As at present made, one of the barrels of the bed-key is cast with the spindle, the other barrel and ratchet-wheel being cast separately. When placed in the handle, the spindle, provided with one barrel, is inserted in openings in the slotted head of the handle, and is passed through the ratchet-wheel placed between said openings. The opposite end of the spindle then receives the barrel, which is riveted thereto, the barrel being provided with a shoulder upon its interior to admit of such riveting.

My improved ratchet bed-key may be thus described: A shows a spindle, having cast upon each end a barrel, B, to receive the head of the bedstead-screw. C is a ratchet-wheel, also cast upon the spindle A, between the barrels B. D shows the handle, which consists of an elongated piece of metal, provided at its head with the semicircular openings *a*, upright pin *b*, and projecting pins *c*. This head is also guttered to receive the ratchet-wheel C, and pawl or ratchet E operating the same. This head is also slotted to receive the spindle supporting the ratchet or pawl. E is the ratchet, held upon a spindle, and having riveted to it the spring, which serves to hold it in position upon the ratchet-wheel when the key is being operated. F is a cap, grooved upon its interior, and placed over the ratchet and ratchet-wheel when the same are placed in position within the handle D. The lower end of this cap is provided with a hole, which passes over the pin *b* upon the handle D. This cap is also provided with the projecting pins corresponding to the projecting pins C upon the handle, over which pins and the pins C is passed a plate of metal, which plate, when placed in position over these pins, serves to hold together the cap and handle, and thus keeps the spindle provided with the barrels and ratchet-wheel, and the ratchet and its spring, in position within the handle and cap.

My improved ratchet bed-key being thus constructed, the operation is as follows: The proper barrel for such purpose having been placed over the head of the bedstead-screw, the handle is worked upward, by which movement the pawl, as it operates the ratchet-wheel, causes the barrel in which the head of the screw is held to revolve, and by this revolution of the barrel the bed-screw is screwed into position. When desired to take out or remove the screw of the bedstead, the position of the key is reversed, bringing the head of the screw within the opposite barrel, and the handle being thrown downward the ratchet operates the ratchet-wheel, as just stated, causing the barrel to revolve, and unscrewing the screw.

It will be observed that the barrels, spindle, and ratchet-wheel are in the present instance made or cast from one and the same piece, presenting the advantages of strength, simplicity, economy of manufacture, and durability; also that the same, when placed in the handle and covered by the cap, are, as well as the ratchet and its spring, kept in their proper position, and protected from exposure and from dust.

I do not wish to be understood as desiring to claim the invention of the ratchet bed-key, as I am well aware that the same has been long used.

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

The bed-key constructed and arranged as above described, as a new article of manufacture.

WILLIAM M. GRAY.

Witnesses:

A. SIDNEY DOANE,

G. W. ALLEN.