

H. SMIDT & J. HUPFELD.

BED-BOTTOM.

No. 175,515.

Patented March 28. 1876.

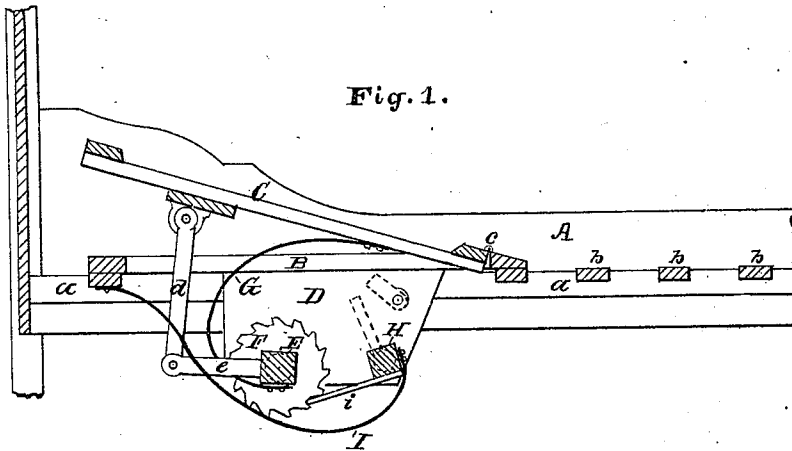


Fig. 1.

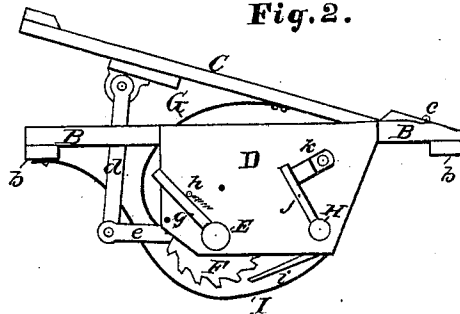


Fig. 2.

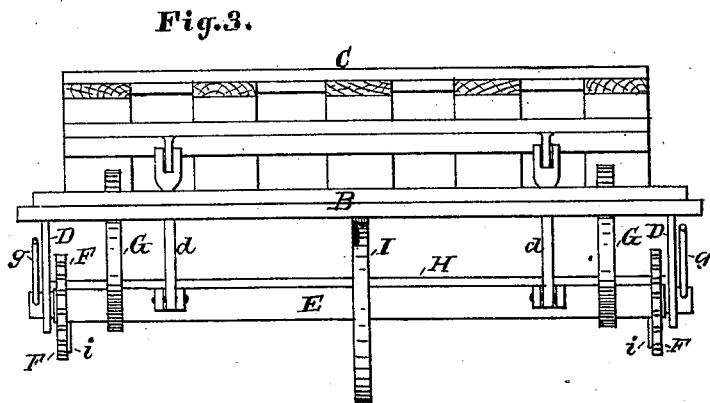


Fig. 3.

Attest:

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UNITED STATES PATENT OFFICE

HENRY SMIDT AND JOHN HUPFELD, OF NEW YORK, N. Y.

IMPROVEMENT IN BED-BOTTOMS.

Specification forming part of Letters Patent No. **175,515**, dated March 28, 1876; application filed January 28, 1876.

To all whom it may concern:

Be it known that we, HENRY SMIDT and JOHN HUPFELD, both of the city, county, and State of New York, have invented certain Improvements in Bed-Bottoms, of which the following is a specification:

Our invention relates to devices by which the head or pillow end of the bed may be raised or lowered, or allowed to rest only on springs, as may be desired. It consists, essentially, in the combinations of the elements going to form the mechanism, as will be hereinafter described.

We contemplate so constructing our device that it can be applied to any bedstead, whether it has a spring or common slatted bottom, or be attached so as to form a part of the bottom, as may be deemed expedient.

In the drawings, Figure 1 is a vertical mid-section of our invention as applied to the ordinary slatted bottom of a bedstead. Fig. 2 is a side elevation of the same. Fig. 3 is an end elevation of the same.

Let A A represent side rails, *a a* slat-bearers, and *b b* slats, of an ordinary bedstead. A frame, B, somewhat narrower than the space between the side rails, and of convenient length, may rest upon two of the slats and be secured thereto. The intervening slats may be removed. To the frame B is hinged, at *c*, a slatted section, C. D D are bearing-plates, secured to the frame B on each side, and arranged to receive the journals of a ratchet-shaft, E, bearing ratchet-wheels F F, as shown. Links *d d* are hinged at one end to projections *e e* on the shaft E, and at the other end to suitable provisions on the section C. This arrangement is such that when the shaft E is rotated in either direction the section C is raised or lowered. Springs G G have their ends secured, respectively, to the shaft E and section C, in such a manner that in its normal

condition the section is supported elastically by said springs, as shown, and any pressure on the section tends to rotate the shaft and coil up the spring, thus relieving the spring from breaking strains. When the shaft is turned in the proper direction, the spring is coiled up and the section drawn down. To hold it down, pins *h h* are inserted in holes in the plates D D, to engage the handles *g g*, by which the shaft is rotated. H is a pawl-shaft, provided with pawls *i i*, and having suitable bearings in the plates D D. These pawls engage the ratchets F F. Handles *jj* on the ends of the pawl-shaft serve to disengage the pawls, and buttons or cams *k k* serve, when turned as shown in Fig. 2, to preserve the disengagement. Otherwise, the spring I would keep them up to the teeth.

It will be seen that when the pawls engage the ratchets, as shown in Fig. 1, the pressure on the section is thrown wholly upon them, and there is no elasticity, the springs G G being inert for the time being.

By turning the buttons and disengaging the pawls, the pressure may at any time be thrown upon the springs again.

We claim—

The combination of the hinged section C, frame B, shafts E and H, ratchet-wheels F F, pawls *i i*, springs G and I, links *d d*, side plates D D, and handles *g g jj*, substantially as set forth.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

HENRY SMIDT.
JOHN HUPFELD.

Witnesses:

HENRY CONNETT,
ARTHUR E. FRASER.