

J. W. READ & A. L. HOWELL.
Bed-Bottom.

No. 196,701.

Patented Oct. 30, 1877.

Fig 1.

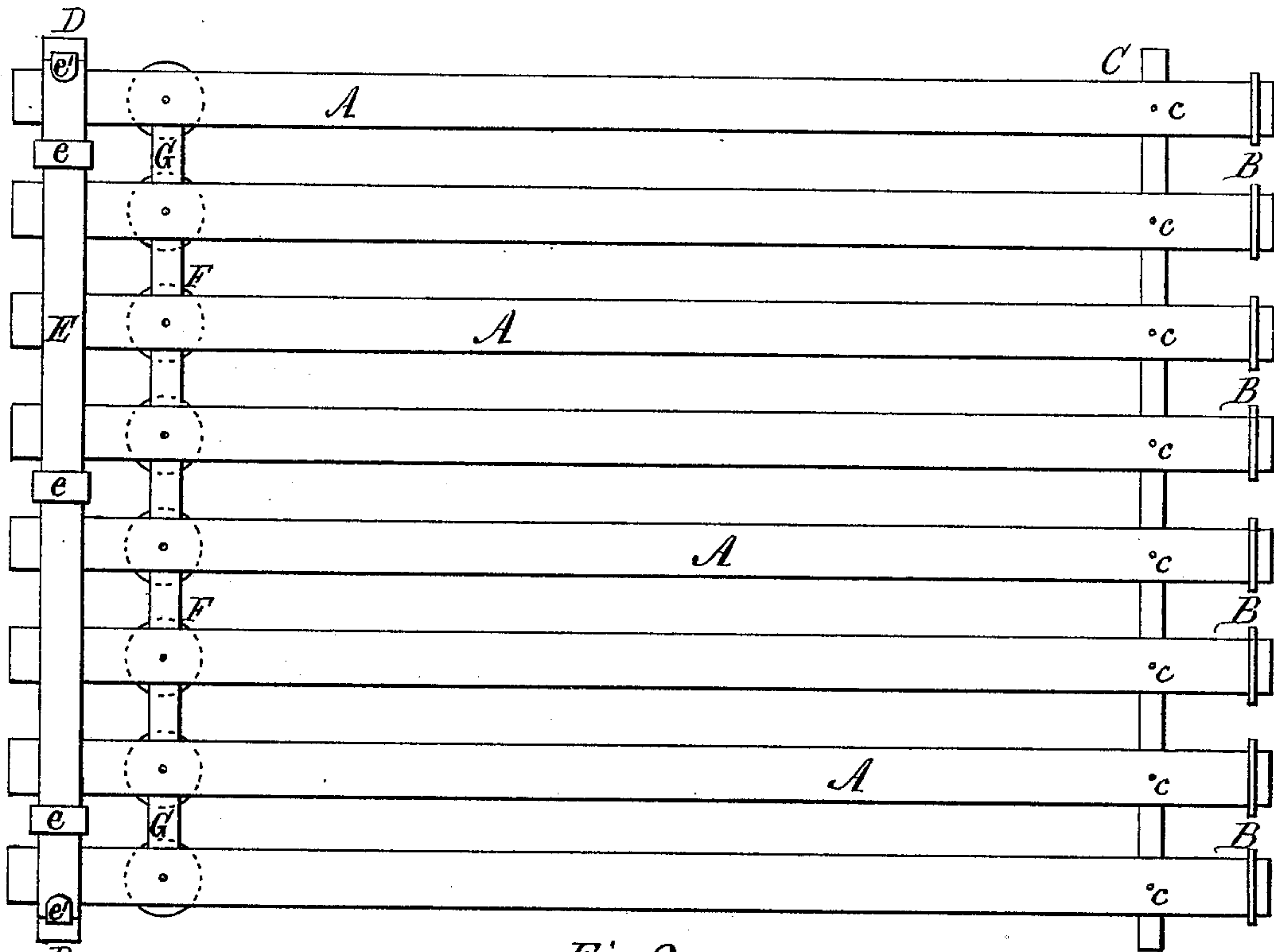


Fig 2.

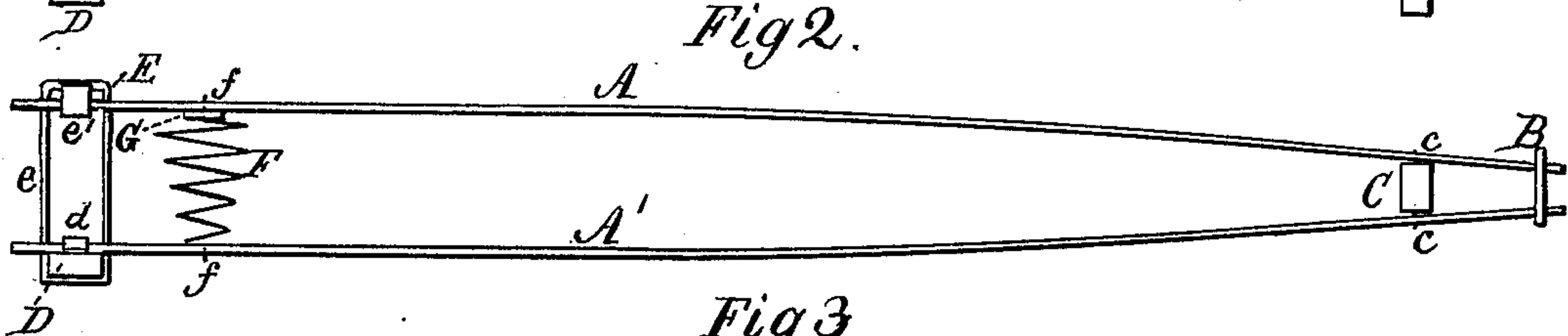
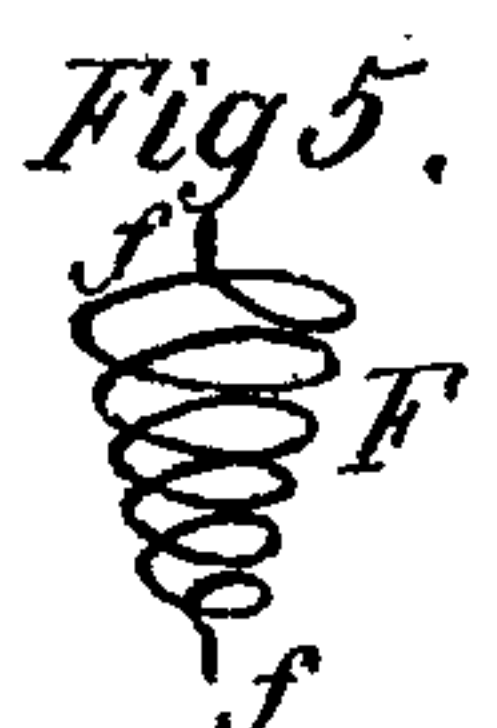
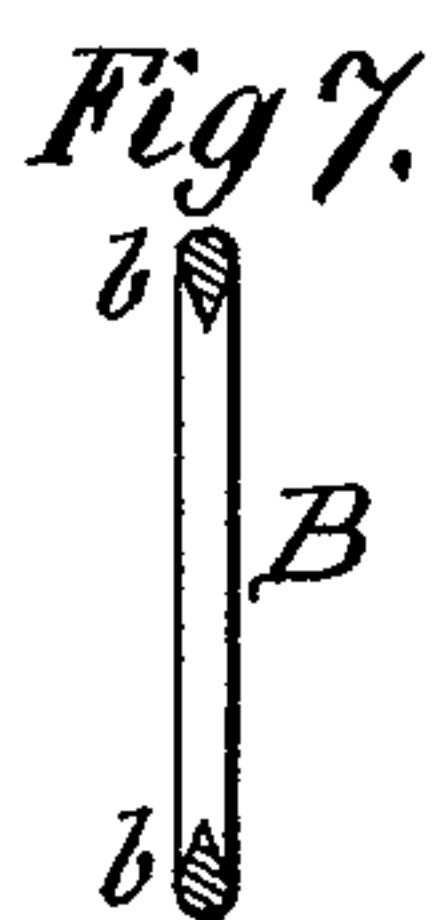
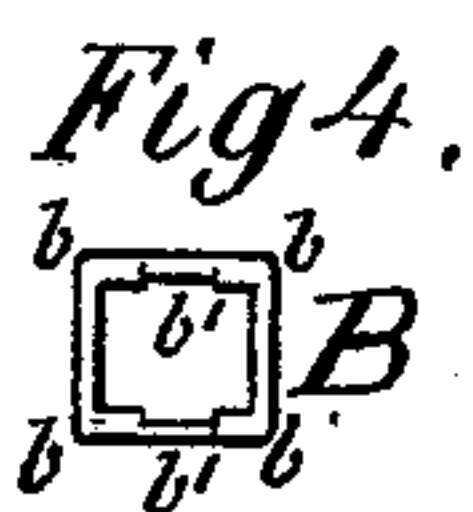
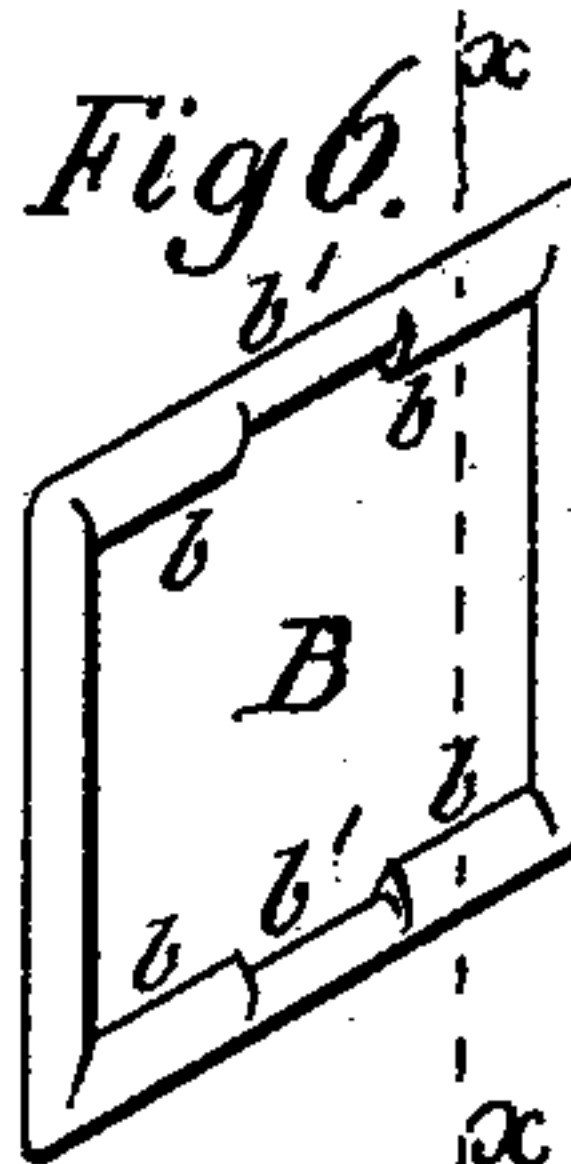
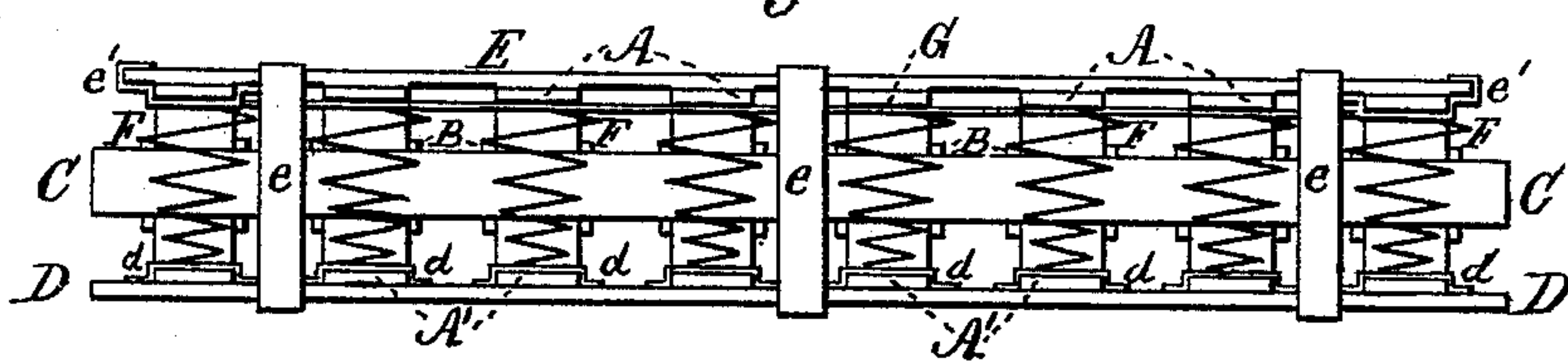


Fig 3



Witnesses:
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UNITED STATES PATENT OFFICE.

J. WATERMAN READ AND ALBERT L. HOWELL, OF MOHAWK, ASSIGNORS
TO THEMSELVES AND JAMES CHATTAWAY, OF ILION, NEW YORK.

IMPROVEMENT IN BED-BOTTOMS.

Specification forming part of Letters Patent No. **196,701**, dated October 30, 1877; application filed
May 28, 1877.

To all whom it may concern:

Be it known that we, J. WATERMAN READ and ALBERT L. HOWELL, both of Mohawk, in the county of Herkimer and State of New York, have invented a new and useful Improvement in Bed-Bottoms, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a top view of our improved bed-bottom, and Fig. 2 a side elevation of the same. Fig. 3 is a view of the head end of the bed-bottom, and Fig. 4 a detail view of a clasp used in the same. Fig. 5 is a perspective view of one of the tension-springs used in our bed-bottom. Fig. 6 is an enlarged perspective view of the clasp used to hold the ends of the slats in place. Fig. 7 is a section in the line *xx* of the same.

The nature of our invention consists in certain constructions, combinations, and arrangements of parts hereinafter fully described and specifically claimed, whereby an elastic bed-bottom of very simple and appropriate construction, great durability, and effectiveness in operation is produced.

In the drawings, A represents a number of longitudinal elastic slats, by which the mattress is supported, and A' represents a like number of similar slats of a lower set, the two sets being connected with each other, so as to operate in conjunction.

Near the foot end of the bed-bottom the slats are braced in couples of an upper and a lower slat by means of a clasp, B, which is provided with sharp bearings *b*, whereby the clasp takes a firm hold upon the slat, and is prevented from slipping. By interrupting the said bearings *b* in the center, as at *b'*, the force necessary for making an impression on the slat is greatly reduced, and the slat not being impressed all across is less liable to break.

At a suitable distance from the clasps B a fulcrum-beam, as at C, is inserted crosswise between the upper and lower set of slats, and connected with them by means of vertical central pins *c*, with which the slats are pierced.

The lower slats A' are, near the head of the bed, loosely secured upon a supporting cross-beam, D, by means of clasps or staples *d*.

The said parts are so constructed that the

beam D may, in conjunction with an upper cross-beam, E, be adjusted longitudinally upon the head ends of the slats by being slipped nearer to or farther from such ends. At a suitable distance from the said ends the upper slats bear upwardly against a cross-beam, E, which is connected with the beam D by means of straps *e*. The upper outer slats, at the right and left hand side of the bed-bottom are passed through clasps or staples *e'*, fastened to the upper beam E; but the intermediate slats have no such clasps or staples, and thus each of the intermediate slats may be independently depressed from the beam E while the bed-bottom is in use.

Near the cross-beam E the slats are provided with spiral tension-springs F, which are formed with central vertical ends *f*, as shown in Figs. 2 and 5. These ends *f* are inserted into the slats A above and A' below, and serve as steady-pins for the springs. In order to prevent any extraordinary lateral sway of the upper slats, which are not clasped to the beam E, we pass the upper ends *f* of the springs F, at suitable distances apart, through a band or strap, G, which runs across and beneath the upper slats A, the ends of this band or strap being fastened either to the two outside upper slats or to their springs F. In this manner the crowding of the intermediate upper slats to one side or the other of the bed-bottom is prevented, without hindering the independent up-and-down movement of each of these slats to such extent as may be desirable. The beam E serves as an elastic bolster, and prevents the bulging of the upper slats where the head of a person lying upon the bed-bottom would naturally rest.

It will be seen that our bed-bottom is pliable only at such parts where it is necessary for the comfort of a person reclining thereon, the foot being almost rigid.

Centrally of their length the slats A are so stiffened by their peculiar connections B and C, and by means of the springs F, which give the slats an arched shape, that no other support is necessary. At the head end we use only one spring F for each couple of slats, so that the elasticity of the slat and spring combined gives sufficient power to resist the

weight above the bed-bottom without making the slats too stiff; and in this manner we furnish a very pliable, strong, and light bed-bottom with but little material and labor, and which, in a very short time, may be taken apart and put together without the aid of any instrument, and by any person of ordinary skill.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. The upper and lower slats A and A', tied together at the lower ends, in combination with the fulcrum-bar C uniting all the slats, and the bars D and E, and controlling-straps e, whereby the intermediate upper slats can be moved independently, and the upper and lower slats moved together, substantially as and for the purpose described.

2. In a bed-bottom, the combination of the elastic upper slats A, the cross-bar E, the supporting-spring, F, the lower elastic slats A',

the supporting cross-beam D, the staples d, and the straps e, substantially as set forth.

3. The clasp B, having inner edges b, centrally divided, substantially as set forth.

4. The bolster or swinging cross-bar E, resting upon the upper slats A, and connected at each end with the two outer slats by means of clasp-fastenings e', substantially as and for the purpose set forth.

5. In a bed-bottom, the springs F, the strap G, the upper swinging frame consisting of the cross-beam E, and the two extreme outer slats A, in combination with the inner slats A, the latter swinging independently of the said frame, and being kept laterally the proper distance apart and from the frame by the strap G, substantially as set forth.

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Witnesses:

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