

(No Model.)

2 Sheets—Sheet 1.

J. G. WINSHIP.
FOLDING BED.

No. 555,415.

Patented Feb. 25, 1896.

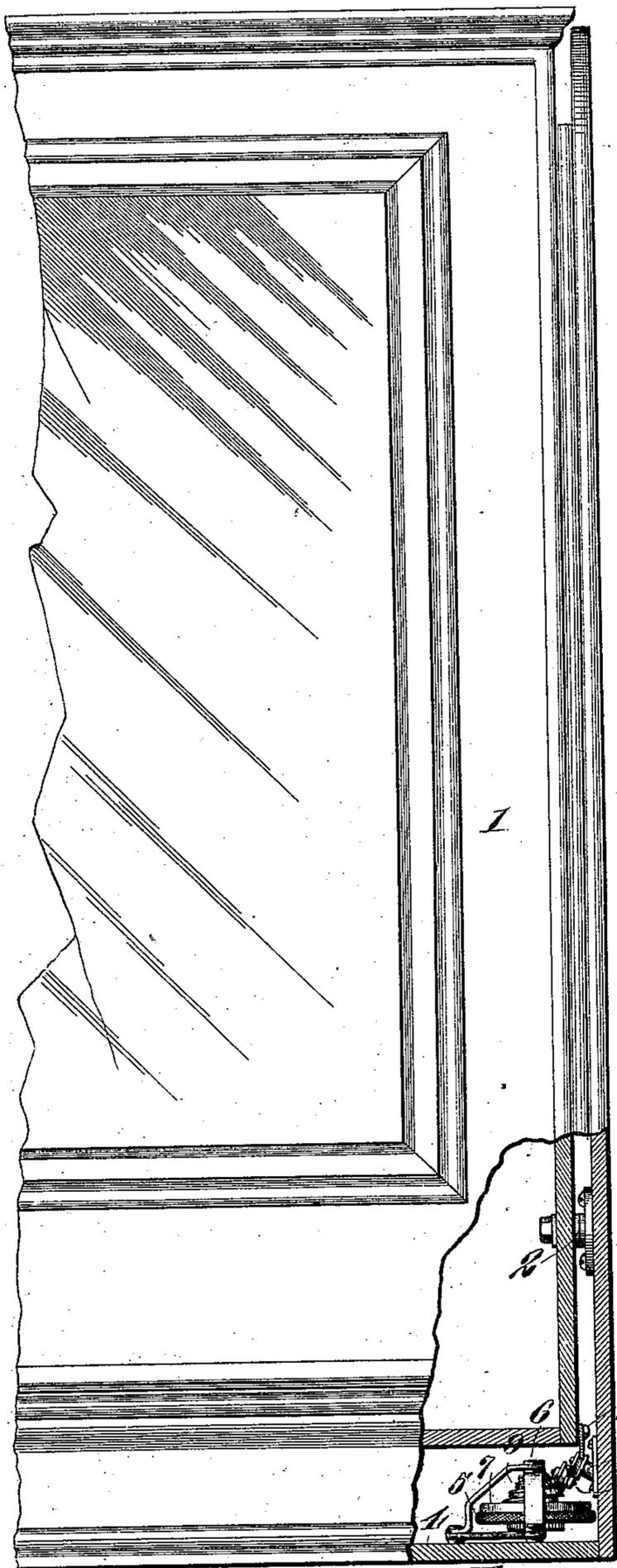


Fig. I.

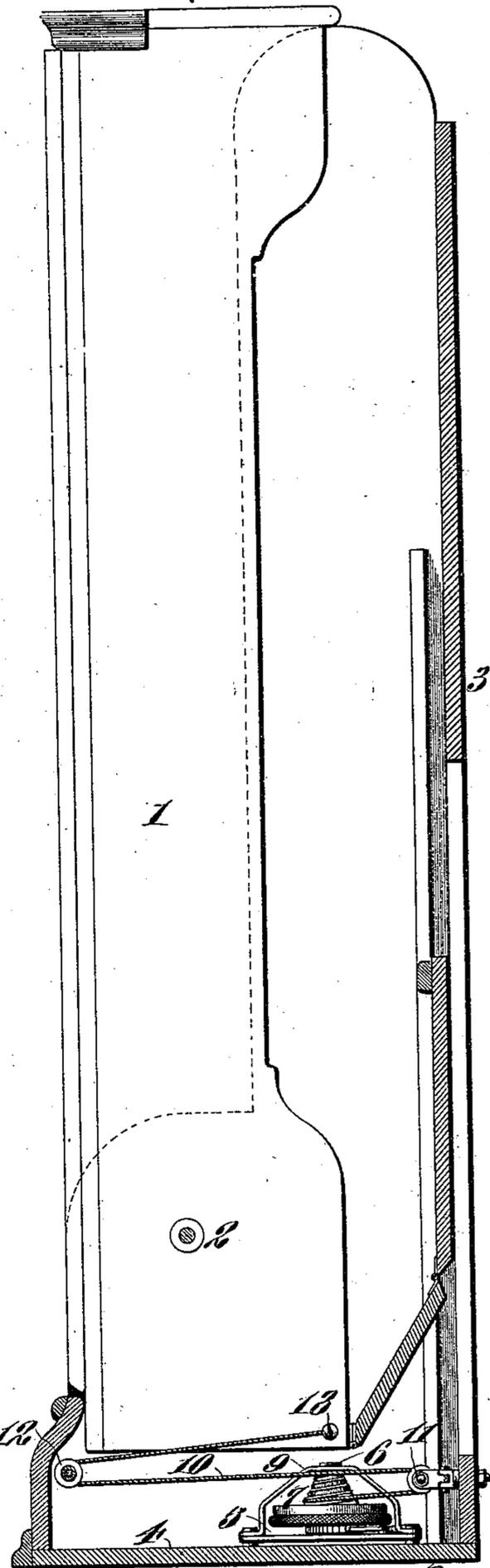


Fig. II. Inventor:

Jesse G. Winship.

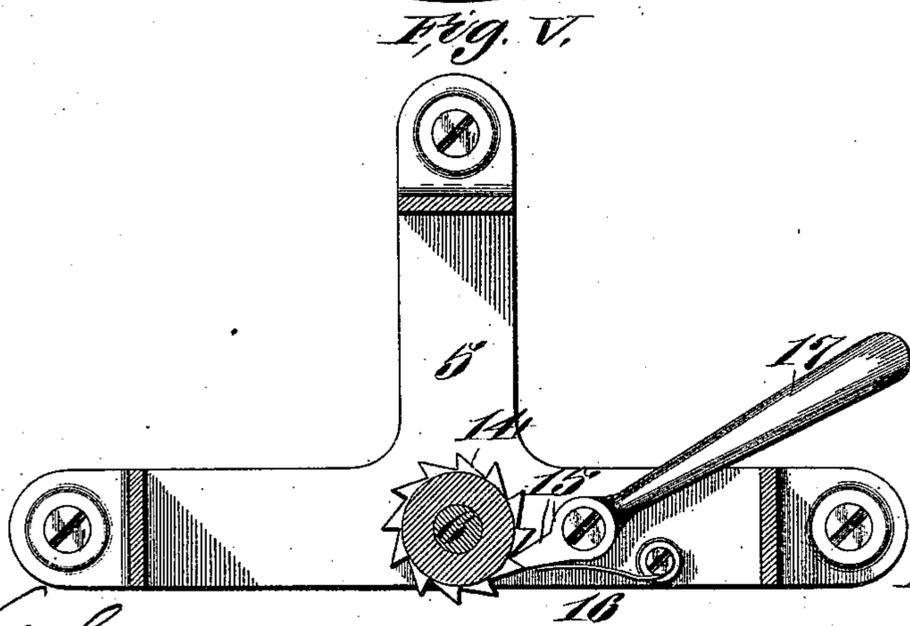
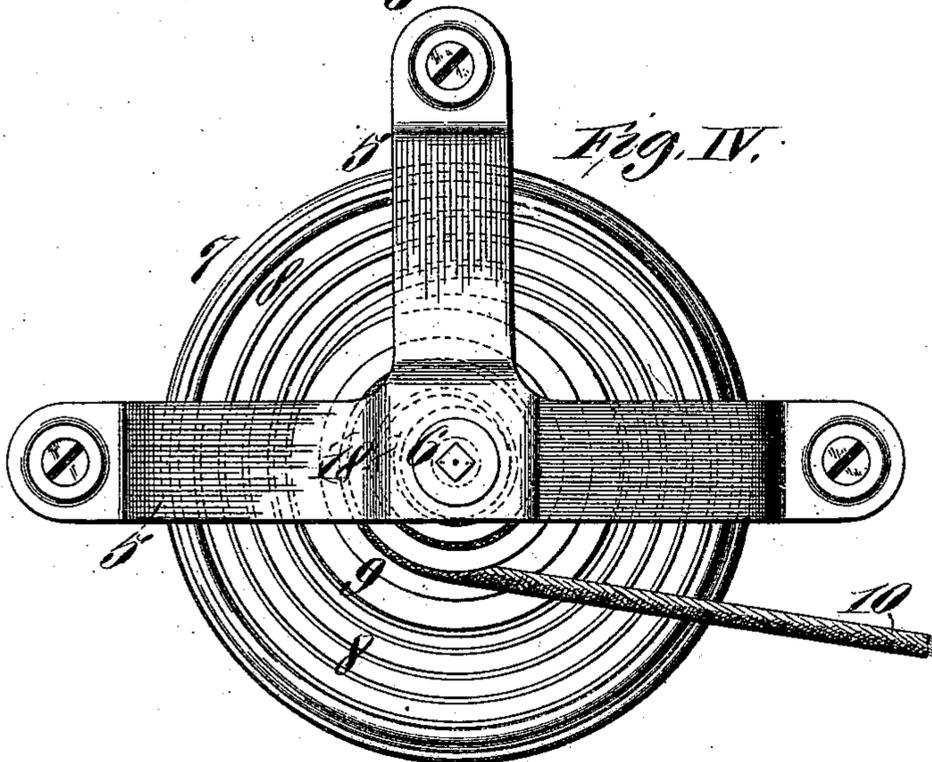
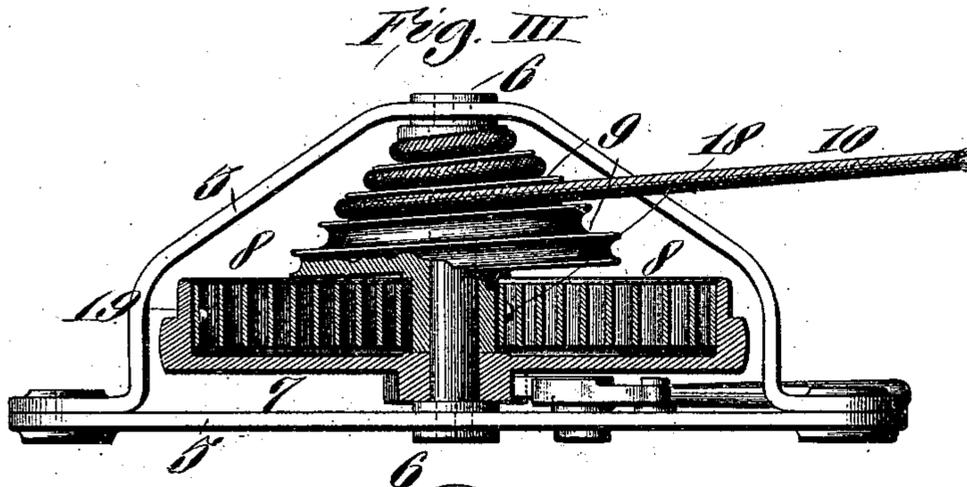
By Wright & Porter
Attys.

Attest:
E. Knight
Stanley Stoner

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Inventor:

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By Knight, Port
Atty's.

UNITED STATES PATENT OFFICE.

JESSE G. WINSHIP, OF ST. LOUIS, MISSOURI.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 555,415, dated February 25, 1896.

Application filed July 2, 1895. Serial No. 554,765. (No model.)

To all whom it may concern:

Be it known that I, JESSE G. WINSHIP, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Folding Beds, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

The object of my invention is to provide a means, by use of a coil-spring, by which a power to counterbalance the weight of the bed is used to raise or fold the bed, the said weight being itself used to wind up the spring.

Figure I represents a front view of the bed with the body raised, a portion thereof being cut away to show my improvement. Fig. II represents a side view of the same. Fig. III represents a side view, part in section, of the spring and cone attachment. Fig. IV represents a top view of the same. Fig. V represents the same view as shown in Fig. IV, excepting that the spring-box and cone are removed to show the ratchet-and-pawl device used for regulating the tension of the spring.

The same numbers indicate the same parts throughout the several figures.

1 is the body of the bed, adapted to be placed in either a vertical or a horizontal position and hung on the pivot 2.

3 is the back or head piece.

4 is the bottom.

5 is a frame of suitable construction secured, as shown, to the base of the stationary portion of the bed. It has a pin 6 placed as shown, which is adapted to loosely carry the casing 7 and cone 9. This casing 7 incloses a coil-spring 8, and said spring is rigidly secured at its inner end 18 to the base of the cone 9 and at its outer end 19 to the casing 7.

The cone 9 is provided with a continuous groove in which is wound the rope 10 as the spring turns the cone. One end of this rope is secured to the apex of this cone. It is then passed through pulley 11, secured to the head-piece 3, then through the pulley 12, secured to the base, as shown, and then fastened to the body at 13. The cone 9 is placed apex upward, so that when the bed is folded, Fig. II, the rope will wind about the base,

and as it is opened and less strength is needed it will unwind to the apex. 50

The casing 7 is provided at its base with a ratchet 14, and 15 is a pawl to engage the same. This pawl 15 is held in place by a spring 16. 17 is a handle to enable one to disengage the pawl 15 from the ratchet 14. The purpose of this is to enable one to tighten the spring when necessary, or to place the spring at the proper tension to counterbalance the weight of the bed. 60

The operation of the device is as follows: The bed being folded, as shown in Fig. II, the spring 8 is expanded and the cord 10 is wound to the base of the cone 9. To open the bed, the body 1 is lowered by the hand into a horizontal position. This draws the cord 10 from around the cone 9, thereby turning all that part of the device which revolves about the pin 6. The inner end of the spring 8, however, is secured at 18. Hence this unwinding of the cord 10 winds up the spring 8. The power thus obtained is then utilized when the bed is to be again raised to a vertical position, said power counterbalancing the weight of the bed-body. 75

My invention provides a very simple and effective means of operating a folding bed, and is compact in form, not likely to get out of order, and inexpensive to manufacture. It does the work thoroughly and is much more satisfactory than the old system of weights. 80

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

1. A folding bed comprising a frame, a pin secured to the frame, a casing having a ratchet and loosely mounted on the pin, a pawl pivoted to the frame, and engaging the ratchet, the spirally-grooved cone, loosely mounted on the pin, and seated in the casing, the helical spring located within the casing, having its inner end secured to the base of the cone and its outer end secured to the casing, and means for connecting the cone with the body; substantially as described. 85 90 95

2. A folding bed comprising a pivoted body, a front pulley, a back pulley, a frame, a pin secured to the frame, a casing having a

ratchet, and loosely mounted on the pin, a
pawl pivoted to the frame, and engaging the
ratchet the spirally-grooved cone, loosely
mounted on the pin, and seated in the casing,
5 the helical spring located within the casing,
having its inner end secured to the base of
the cone and its outer end secured to the cas-
ing and the connecting-rope extending from

the apex of the cone through the back pulley,
through the front pulley, and connected with 10
the body; substantially as described.

J. G. WINSHIP.

In presence of—
E. S. KNIGHT,
STANLEY STOVER.