(No Model.) 2 Sheets—Sheet 1.

R. B. AYRES.

WARDROBE BEDSTEAD.

No. 345,612. Patented July 13, 1886.

FIG. I.

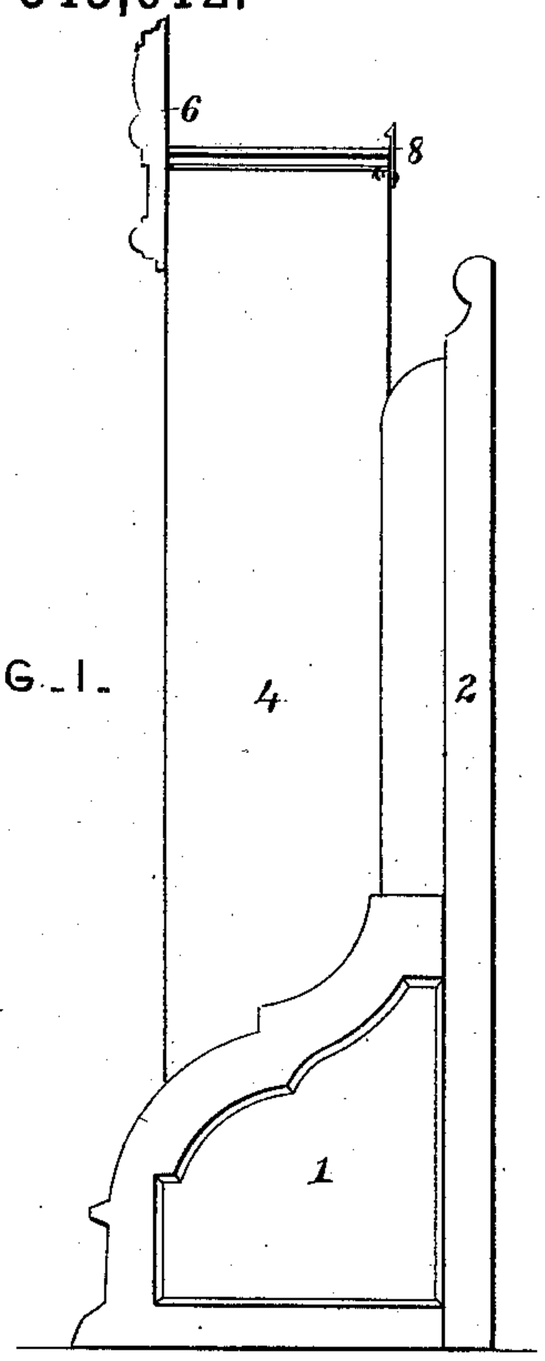


FIG. II.

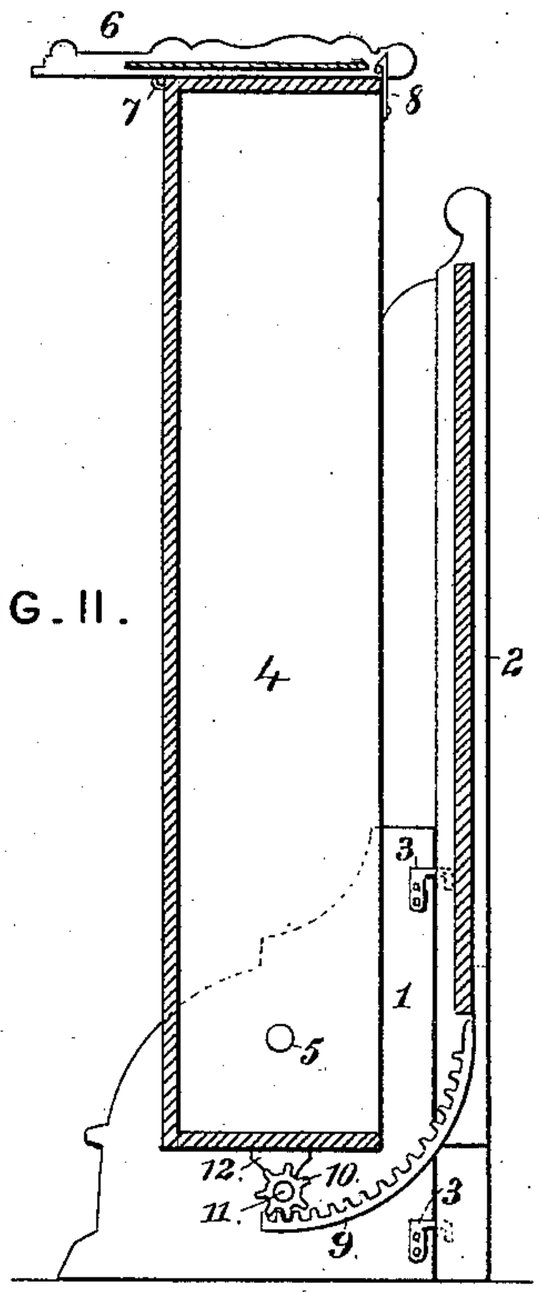


FIG. III.

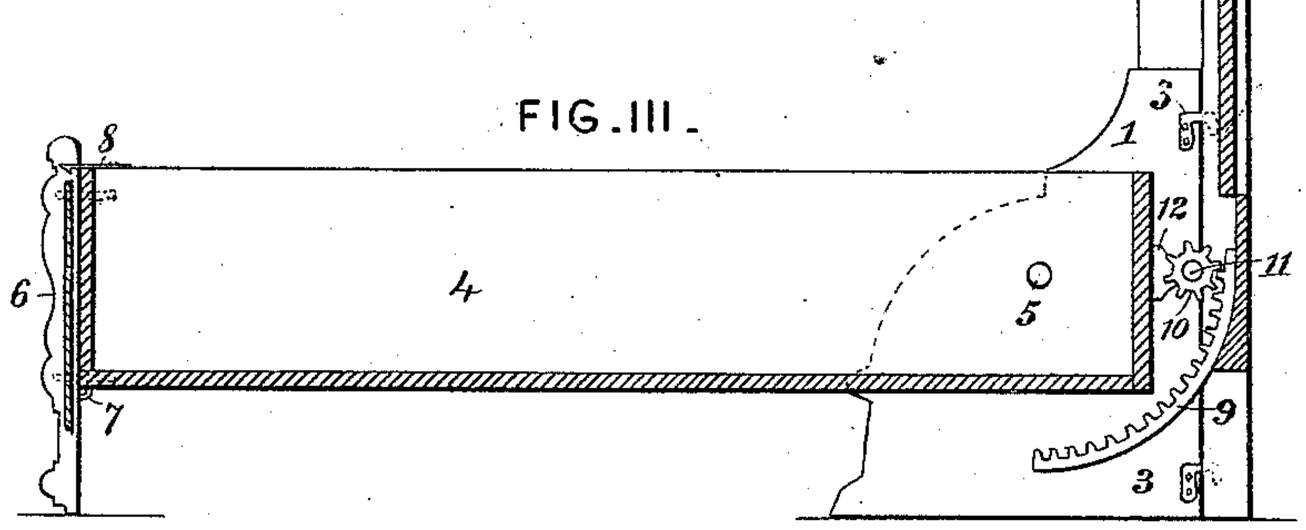
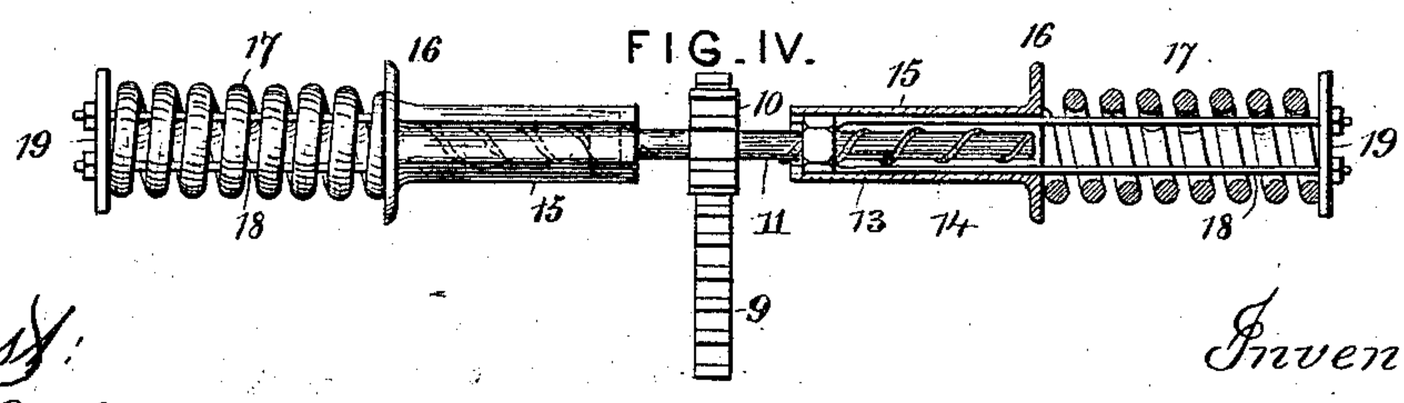


FIG. IV.



Attest:

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(No Model.) 2 Sheets—Sheet 2.

R. B. AYRES.

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FIG. V.

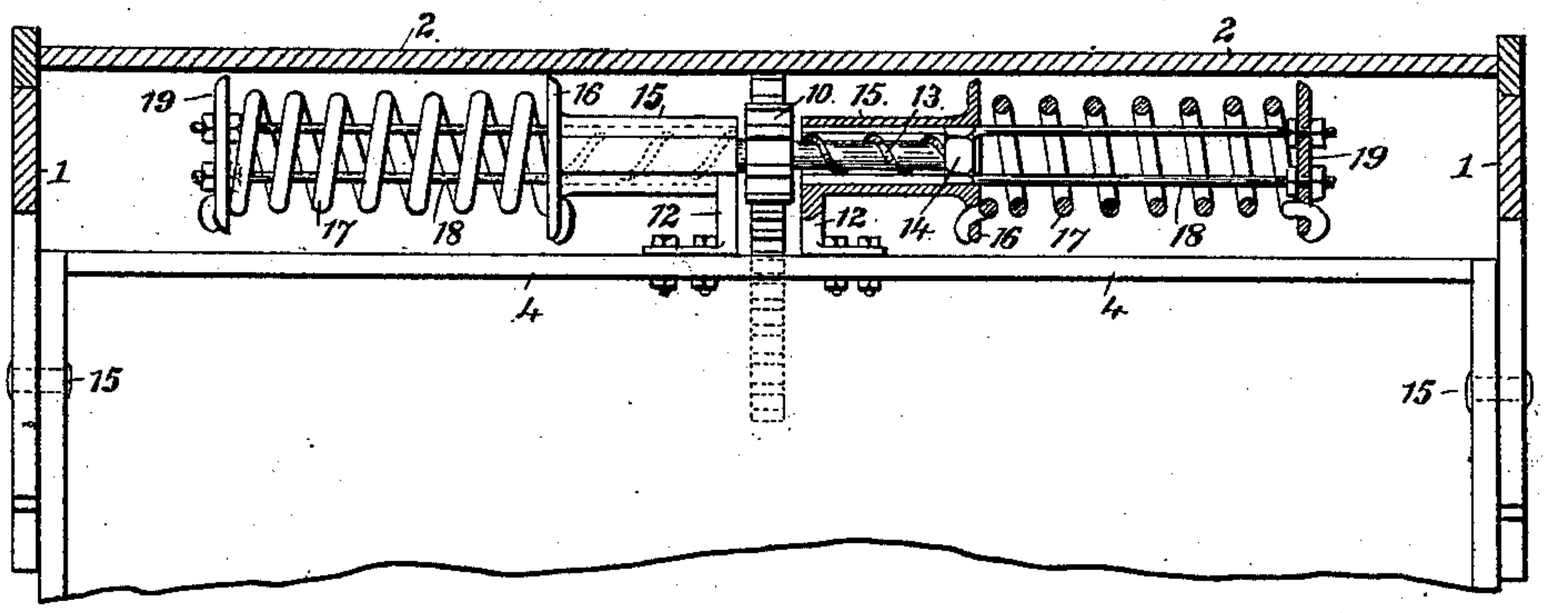
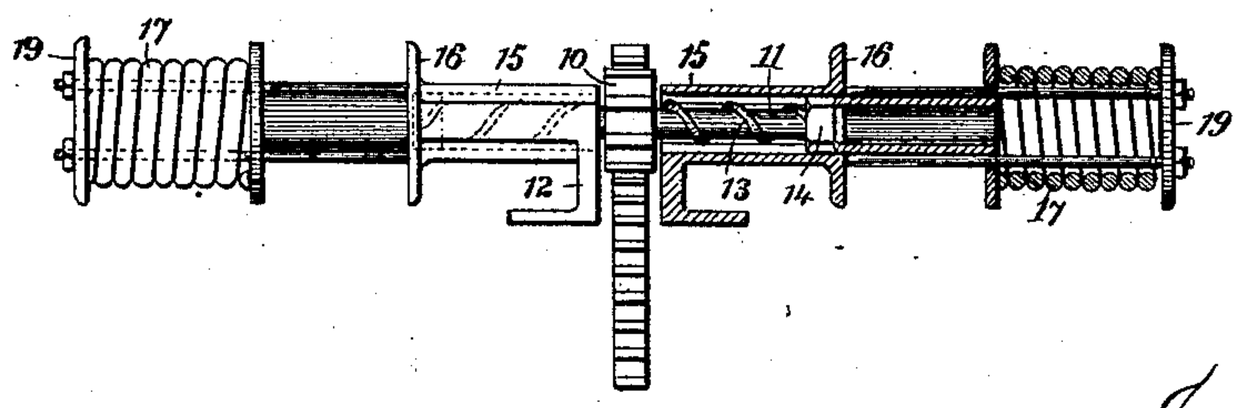


FIG. VI.



Attest

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UNITED STATES PATENT OFFICE.

RUBEN B. AYRES, OF ST. LOUIS, MISSOURI.

WARDROBE-BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 345,612, dated July 13, 1886.

Application filed November 20, 1885. Serial No. 183,447. (No model.)

To all whom it may concern:

Be it known that I, RUBEN B. AYRES, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Improvement in Wardrobe-Bedsteads, of which the following is a specification.

My invention is an improvement on that form of folding bedstead in which the bed-frame is pivoted at its inner end to the sides of the outer frame, has a hinged foot-board forming a cornice, is connected to counter-balance-springs, and is guided by means of a pinion working on a rack-segment.

The object of my invention is to simplify the construction and provide a bedstead which can be readily taken apart and put together, and easily operated. The counterbalance-springs may be one or more in number and operated by either tension or compression.

My invention consists in features of novelty hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure I is a side elevation of the bedstead in its folded position. Fig. II is a vertical section of the same. Fig. III is a vertical section showing the bedstead lowered for use. Fig. IV is a plan on a larger scale, partly in horizontal section, of the counterbalance apparatus. Figs. V and VI are plans on a similar scale, partly in horizontal section, of modifications of the counterbalance apparatus.

The side posts or standards, 1, and head-board 2 are connected by hooks or other fastenings 3 in any usual or suitable way. The bed-frame 4 is pivoted at 5 in the cheeks of the standards 1, so that it may be turned up, as illustrated in Figs. I and II, after the manner of a wardrobe-bedstead. The feet 6 are connected by hinges 7, so that they may be placed in the effective position shown in Fig. III, in which position they are secured by catches 8. This position of the feet relatively to the bed-frame is also shown in Fig. II; but when the bed is elevated during the daytime the feet are turned into vertical position, as illustrated in Fig. I, forming a cornice to the wardrobe; but in Fig. I the upper portion of this cornice is omitted or broken away for want of room, this form being sufficiently illustrated in Fig. II.

The feet may constitute a complete foot-board and cornice running from side to side of the bed-frame at the foot.

The weight of the bed-frame is counterbalanced by springs, the arrangement and operation of which will now be described.

To the head-board 2 is secured a stationary segment-rack, 9, gearing with a pinion, 10, on a shaft, 11, journaled in bearings 12 in the head of the bed-frame. The shaft 11 is formed at each end with a screw-thread, 13, engaging with nuts 14, sliding within guiding-sleeves 15, which secure them against rotation, as the sleeves are secured to the bearings, and are formed with heads 16, constituting bearings for the springs 17. The nuts 14 are connected by rods 18, the followers 19 bearing against the outer ends of the springs 17, so that as the nuts are drawn together by the rotation of the pinion 10 in lowering the bed-frame to its horizontal position the springs 17 will be compressed, counterbalancing the weight of the bed-frame and assisting in the elevation of the same when it is desired. The two screws 13 on the rod 11 are of course pitched in opposite directions, or to the right and left relatively.

Referring to Fig. V, if it be desired to use a tension-spring, this is done by simply reversing the screw-rod, so that the pressure of the nuts 14 will be exerted in an outward direction against the spring, the latter being attached at its respective ends to the head 16 and follower 19, or another simple modification which would accomplish the same result (see Fig. VI) would consist in using that which is now shown as the follower 19 as a fixed head permanently connected to the head 16 of the sleeve 15, and introducing a follower between the head 16 and spring 17, guided by the rods connecting the parts 16 and 19, and itself connected by the rods 18 to the nut 14, as before, so as to receive the thrust or tension of the spring, as the case may be, the direction of the screw-threads being made to suit.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination, with suitable standards and a bed-frame hinged thereto, of a connection between the bed-frame and standards, consisting of a segment-rack fixed to one

member and a screw-shaft having a pinion, nut, guide, and spring mounted on the other member, the spring resisting the movement of the shaft, so as to counterbalance the weight of the bed-frames, as explained.

2. The combination, with suitable standards and a bed-frame hinged thereto, of the bearings 12, screw-shaft 11, pinion 10, sleeve 15, nut 14, spring, and a fixed segment-rack, substantially as set forth.

3. The combination, with the pivoted bed-frame, of the pinion-shaft 11, having right-and-left screw-threads 13, the pinion 10, segment-rack 9, nuts 14, guiding-sleeves 15, springs 17, and rods 18, substantially as and for the purpose set forth.

RUBEN B. AYRES.

Witnesses:
OCTAVIUS KNIGHT,
W. E. CHAFFEE.