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Patented Sept. 17, 1901.

J. HERBS.

AUTOMATIC DEVICE FOR COVERING BEDS.

(Application filed June 17, 1901.)

(No Model.)

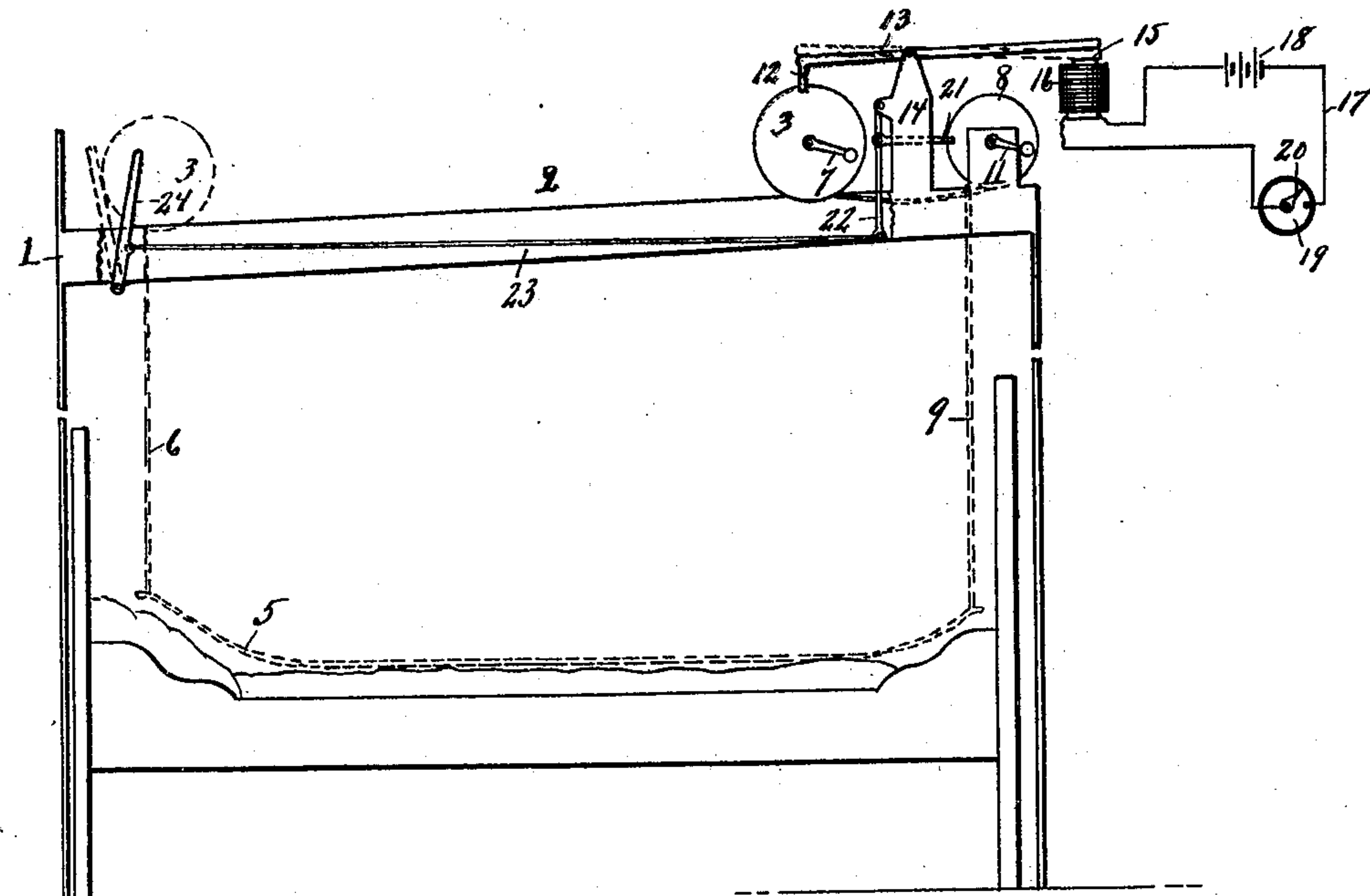


Fig. 1.

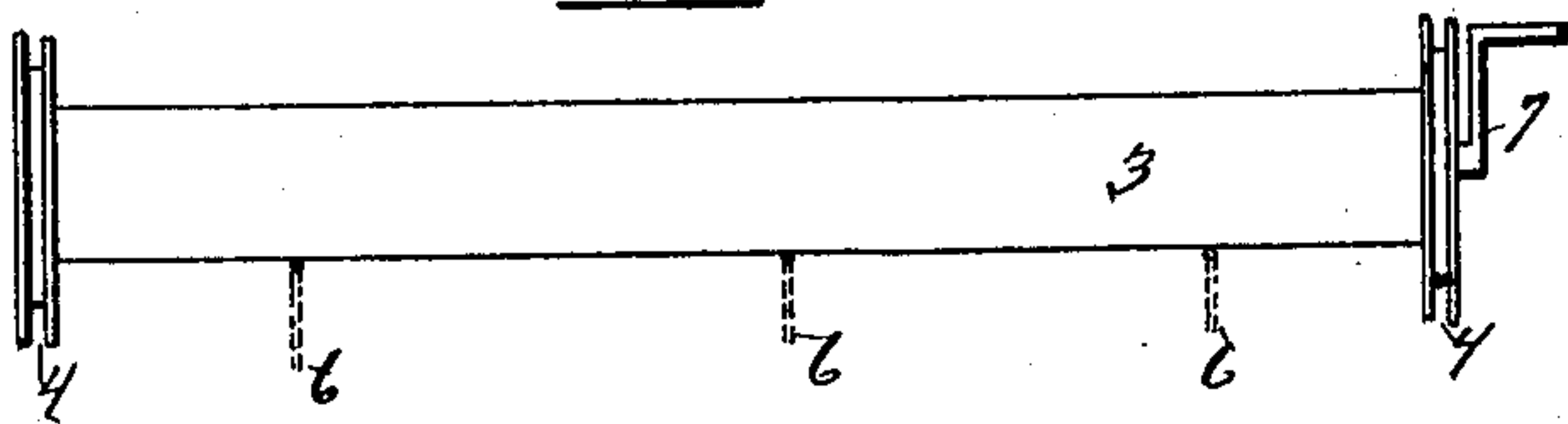


Fig. 3.

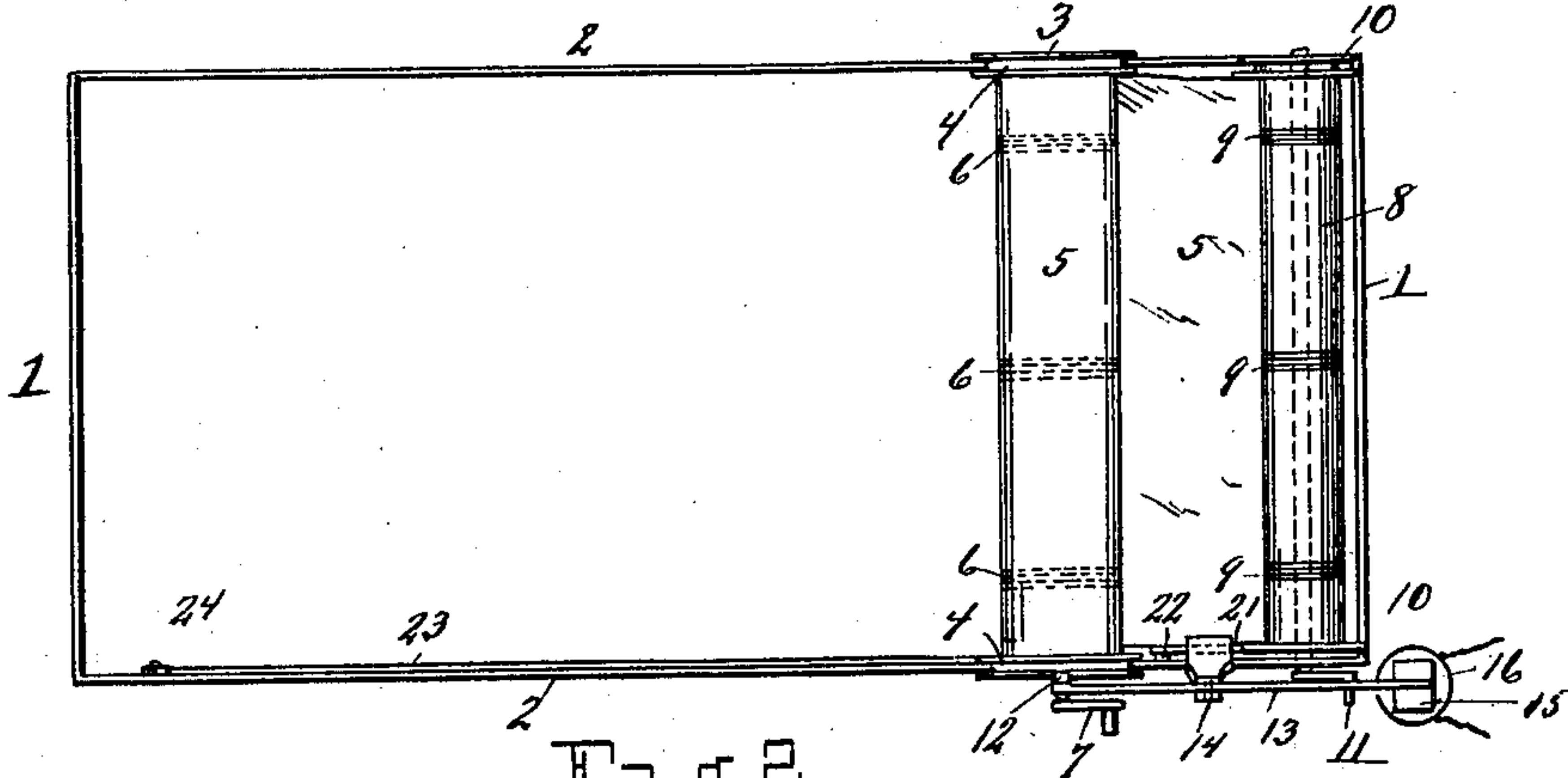


Fig. 2.

WITNESSES.

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AUTOMATIC DEVICE FOR COVERING BEDS.

SPECIFICATION forming part of Letters Patent No. 682,617, dated September 17, 1901.

Application filed June 17, 1901. Serial No. 64,780. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HERBS, a citizen of the United States, residing at Redlands, in the county of San Bernardino, State of California, have invented certain new and useful Improvements in Automatic Devices for Covering Beds; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to an automatic device for spreading a bed-cover or blanket upon the bed when the temperature in the room falls below a predetermined point; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out in the claims.

The object of the invention is to provide simple and efficient means in which the arrangement is such that a blanket or other bed-covering may be automatically deposited on the bed whenever the temperature of the room falls to a point where additional covering is required.

The above object is attained by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a bed, showing my improved blanket-spreading mechanism connected therewith. Fig. 2 is a plan view of Fig. 1. Fig. 3 is an elevation of one of the rollers which suspend the blanket above the bed.

Referring to the characters of reference, 1 designates a rectangular supporting-frame of any suitable construction adapted to carry the operative mechanism and which may be supported on standards independently of the bed or may be attached to the bed, as desired. The side bars 2 of said frame are parallel and serve as a track for the roller 3, provided with peripheral grooves 4 in its opposite ends, which receive the edges of the side bars of the frame, whereby the roller is held in place and directed in its movement. One end of the blanket or spread 5, adapted to serve as a cover to the bed, is attached to the roller 3 by means of straps or cords 6, which

are adapted to be mounted upon said roller to draw one end of the blanket into contact therewith, when by further rotation of the roller the blanket may be wound thereon, as shown in Fig. 2. The roller 3 is rotated through the medium of the crank 7, attached to one end thereof. The opposite end of the quilt or blanket 5 is attached to the roller 8 by means of the cords or straps 9, which are adapted to be wound upon said roller through a rotation thereof to carry the quilt upward into contact therewith. The roller 8 is journaled in supports 10, mounted on the frame, and is adapted to be rotated by means of the crank 11.

It will be observed that the supporting-frame is slightly inclined and that when the blanket is wound upon the roller 3 said roller is positioned near the upper end of the frame. To maintain the roller 3 in said position, it is normally held by a detent 12 on the end of a lever 13, pivoted to a support 14 on the frame and carrying at its opposite end an armature 15 of an electromagnet 16. Said magnet is included in an electric circuit 17, of which 18 is the battery or source of electricity, and in which is located a thermostat 19 of any suitable construction, having a movable hand 20, adapted by its movement to alternately open and close said circuit.

To prevent the roller 8 from turning and allowing the cords 9 to unwind therefrom when supporting one end of the blanket 5, the detent 21 is employed, which engages the flange or periphery of said roller to normally hold it from rotation. Said detent is mounted on the pivoted arm 22, having a rod 23 pivoted to the lower end thereof, the other end of said rod being attached to a trip-lever 24, pivoted to the lower end of the frame in the path of the roller 3. With the parts in their normal position, as shown in Fig. 1, the electric circuit is open at the thermostat and remains open until the temperature of the room falls to a certain point, when the hand 20 will be moved to close the circuit 17, and thereby energize the electromagnet 16, when its armature 15 will operate the lever 13 and raise the detent 12 from the roller 3, allowing said roller to roll down the inclined frame, in which operation the quilt or blanket is unwound therefrom, as the upper end of said blanket

is held by the cords attached to the roller 8. When the roller 3 reaches the lower end of the frame, it strikes the trip-lever 24, thereby drawing upon the rod 23 and withdrawing the
 5 detent 21 from the roller 8, when the weight of the quilt or blanket will be sufficient to unwind the cords 6 and the cords 9 from said rollers, respectively, allowing the blanket to fall and spread itself upon the bed, as shown
 10 by dotted lines in Fig. 1, and thereby supplying additional covering to the occupant of the bed and compensating for the decrease in the temperature of the room. To restore the parts, the cords 6 and quilt 5 are rewound
 15 upon the roller 3 through a rotation thereof, as before described, during which operation said roller is rolled upwardly on the inclined frame in a position to be engaged by the detent 21. The roller 8 is also rotated to wind
 20 the cords 9 thereon, when the parts are in a position for a succeeding operation.

It will now be understood that the operation of placing the blanket on the bed is purely automatic and that the operative parts are
 25 actuated to deposit the blanket upon the closing of the electrocircuit by the thermostat through a decrease in the temperature of the room.

Having thus fully set forth my invention,
 30 what I claim as new, and desire to secure by Letters Patent, is—

1. In a device for the purpose set forth, the combination of a supporting-frame, a roller adapted to travel upon said frame, a blanket
 35 wound upon said roller, means for locking said roller against movement and means for unlocking said roller to permit it to roll upon the frame and discharge the blanket therefrom onto the bed.

40 2. In a device for the purpose set forth, the combination of an inclined frame, a roller

having a blanket wound thereon, adapted to roll upon said frame, a second roller journaled in the frame and adapted to support one end of the blanket, cords connecting the ends
 45 of said blanket to said rollers, a detent for locking the roller adapted to travel upon the frame, an electromagnet for actuating said detent, said magnet being included in an electric circuit and a thermostat adapted to close
 50 said circuit.

3. In a device for the purpose set forth, the combination of an inclined supporting-frame, a roller adapted to roll upon said frame, a blanket attached to said roller by cords and
 55 adapted to roll thereon, a second roller pivoted in the frame having cords attached thereto which are also attached to the ends of said blanket, a detent adapted to lock the traveling roller against movement, an electromag-
 60 net adapted to actuate said detent, an electric circuit including said magnet and a thermostat, means for locking the journaled roller against rotation, means in the path to the traveling roller adapted to actuate said lock,
 65 and means for unlocking said pivoted roller.

4. In a device for the purpose set forth, the combination of a suitable frame, a traveling roller mounted on said frame, a blanket attached to said roller by cords and adapted to
 70 be wound thereon, means for supporting the opposite end of said blanket, means for causing said roller to travel upon said frame and unwind the blanket therefrom and means for lowering the blanket onto the bed when un-
 75 wound from said roller.

In testimony whereof I sign this specification in the presence of two witnesses.

JOSEPH HERBS.

Witnesses:

JOHN P. FISK,
 F. LOUISE PHELPS.