

No. 716,886.

Patented Dec. 30, 1902.

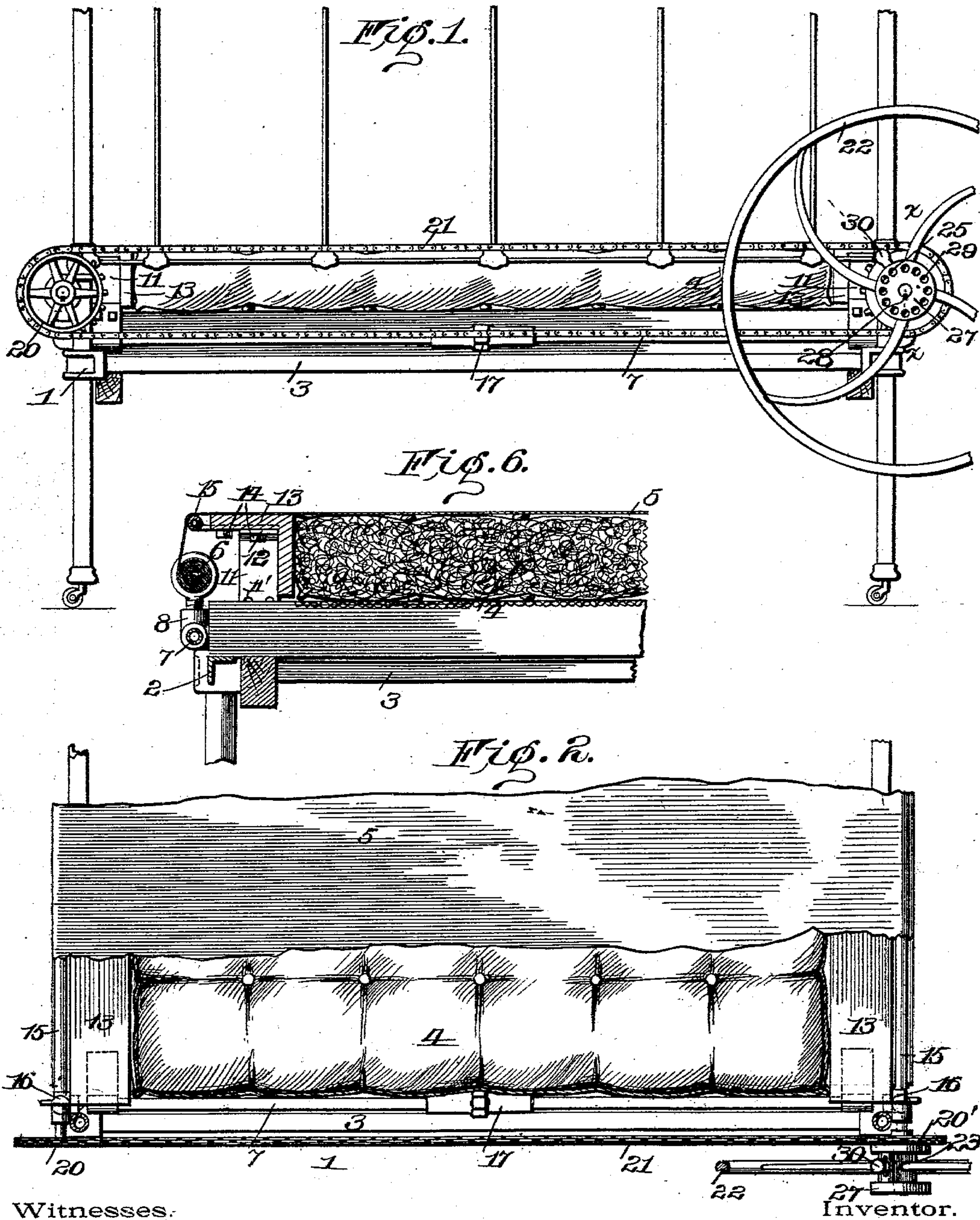
G. GOODE.

BED ATTACHMENT.

(Application filed Nov. 30, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:

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(Application filed Nov. 30, 1900.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 3.

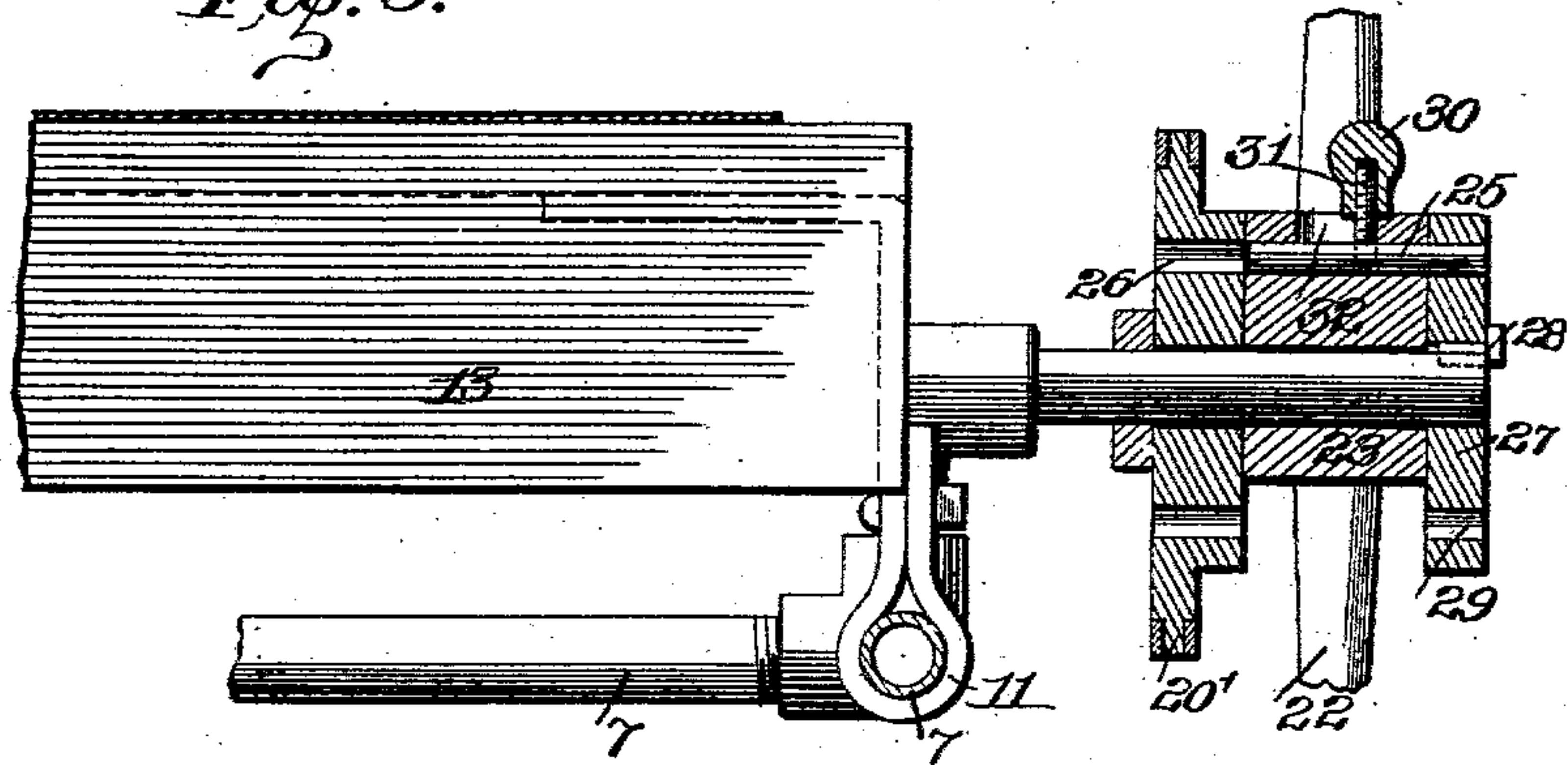


Fig. 4.

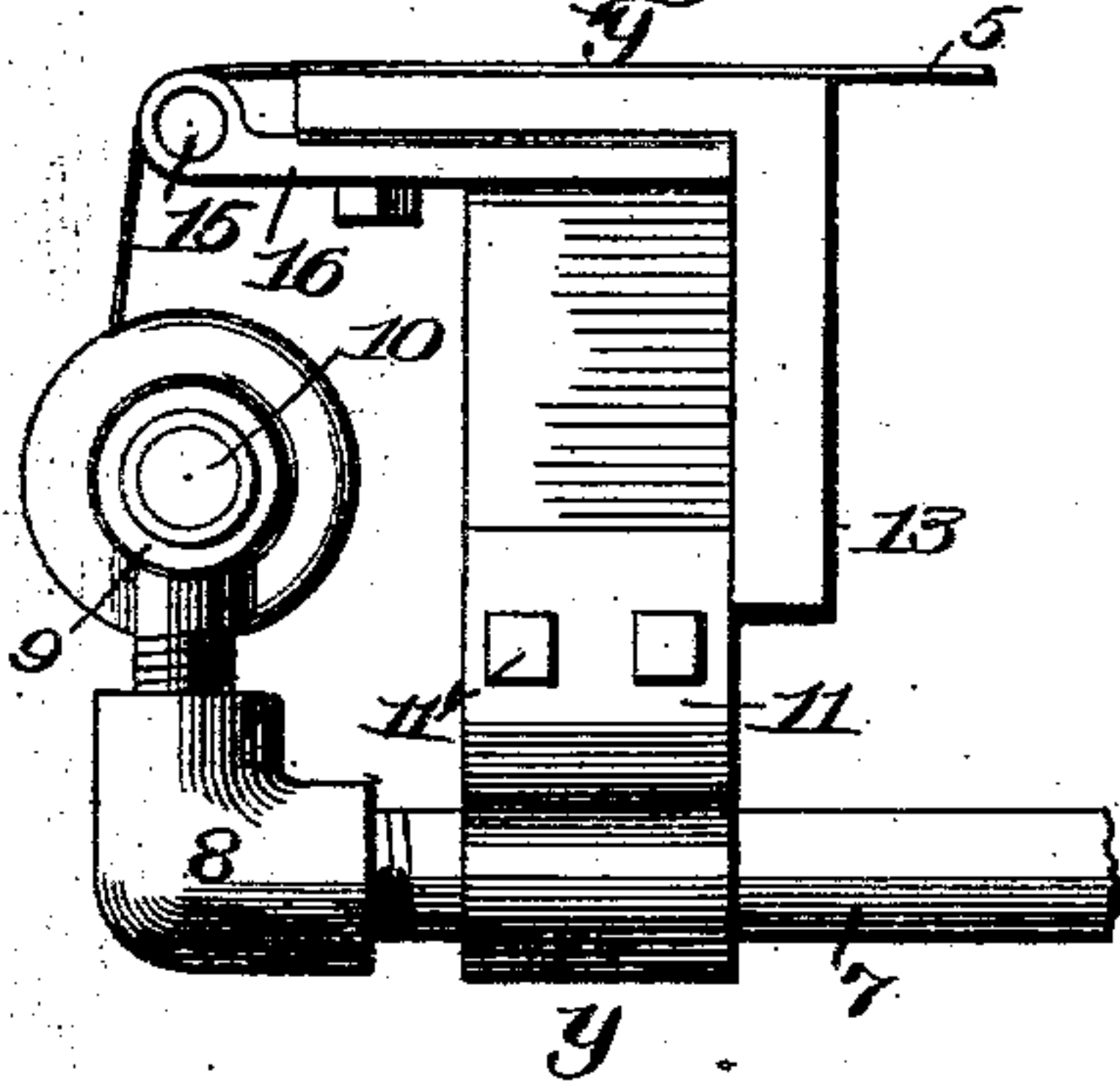


Fig. 5.

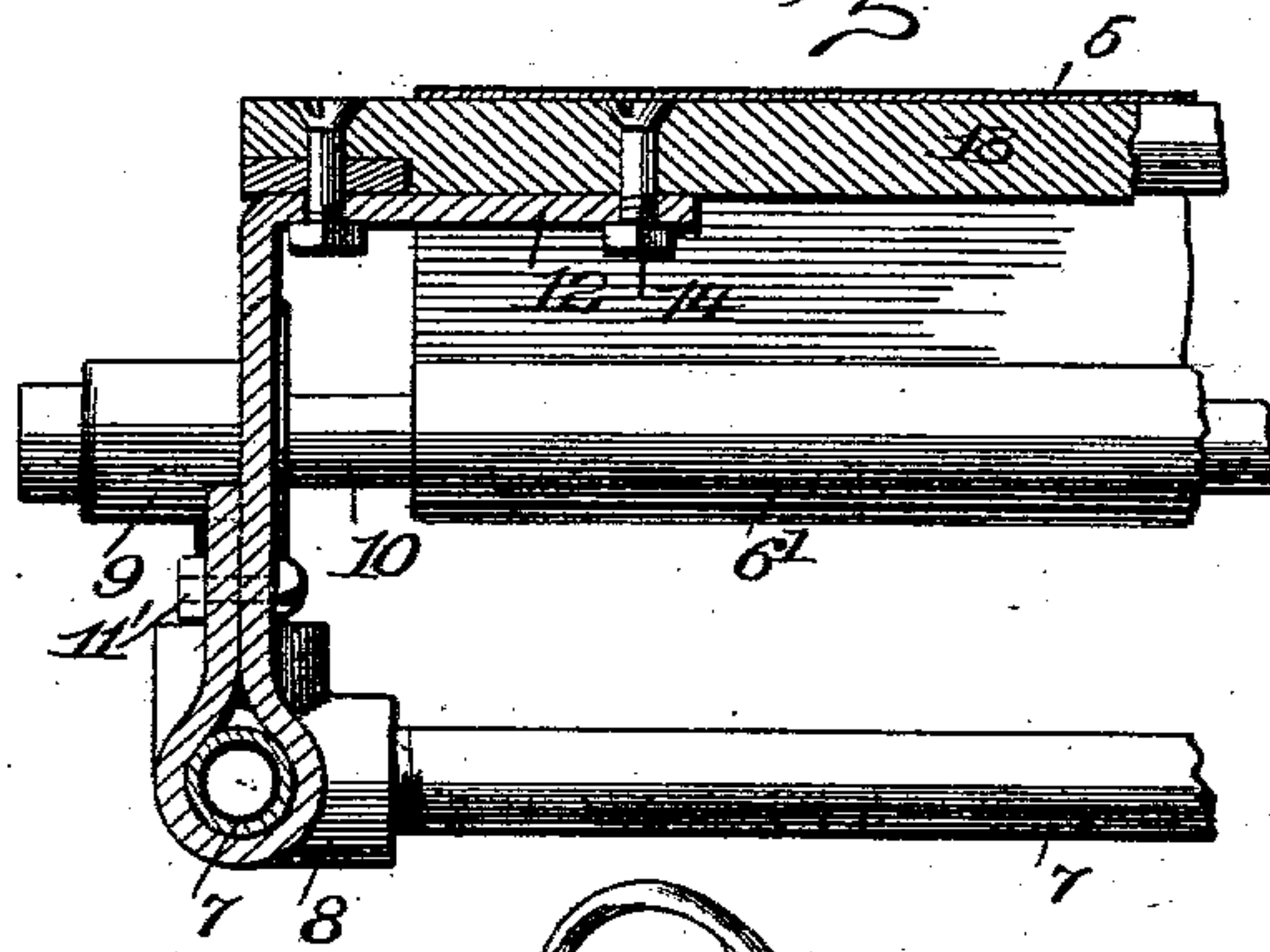
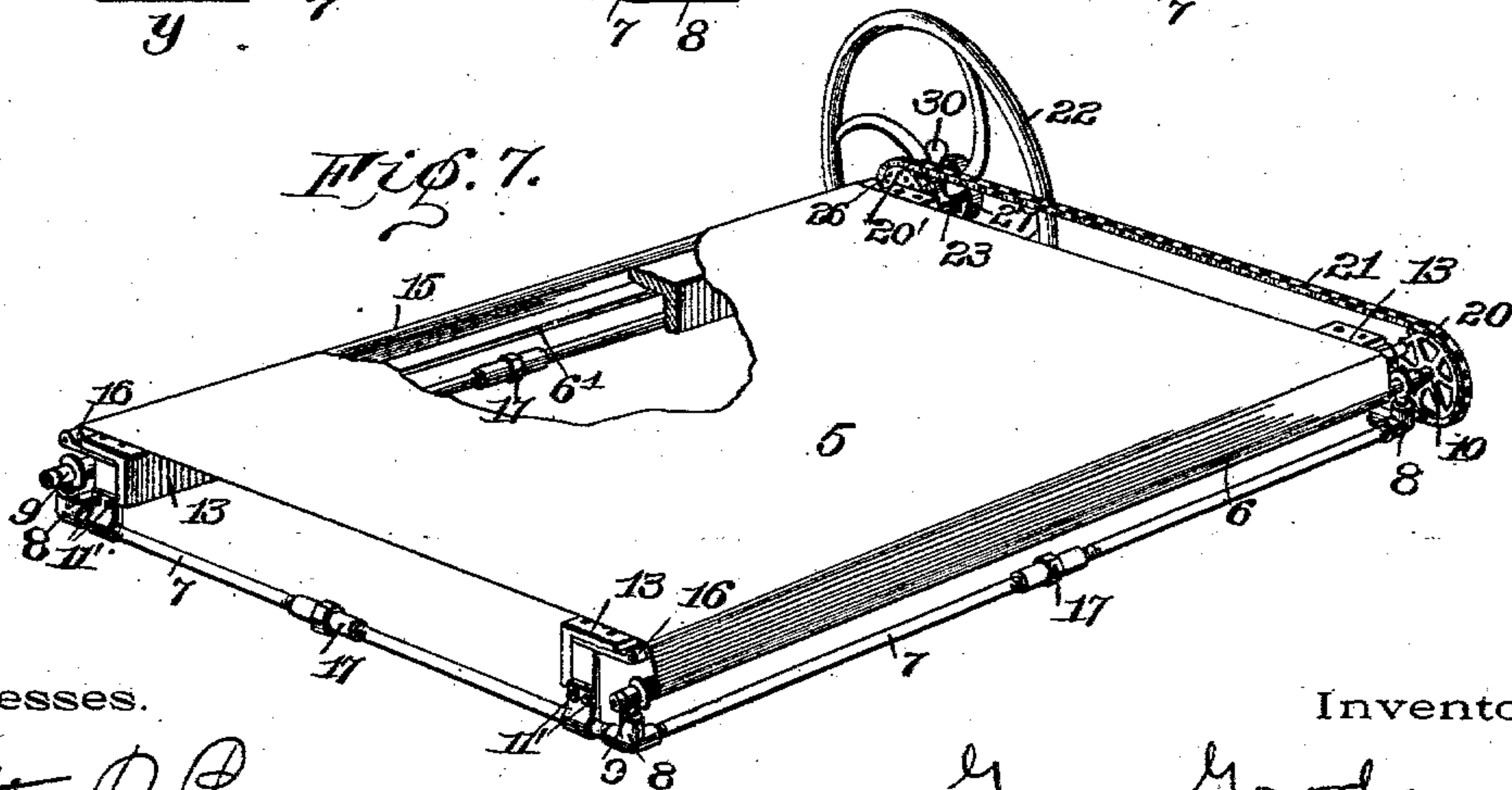


Fig. 7.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE GOODE, OF ROCHESTER, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO ROBERT A. VAN ALLAN AND CHARLES A. SCHMIDT, OF ROCHESTER, NEW YORK, AND RICHARD W. GOODE, OF BUFFALO, NEW YORK.

BED ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 716,886, dated December 30, 1902.

Application filed November 30, 1900. Serial No. 38,082. (No model.)

To all whom it may concern:

Be it known that I, GEORGE GOODE, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Bed Attachments; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

My present invention has for its object to provide a device capable of attachment to beds of various styles and sizes and adapted to be used for moving invalids or other persons thereon without inconvenience or discomfort for the purpose of changing his position or to facilitate his entrance or removal; and to these ends my invention consists in certain improvements and combination of parts, all as will be hereinafter fully described, and the novel features pointed out in the claims at the end of this specification.

In the drawings, Figure 1 is an end elevation of a bed, illustrating the application of my invention thereto. Fig. 2 is a top plan view of an end of the bed. Fig. 3 is an enlarged sectional view on the line xx of Fig. 1. Fig. 4 is an enlarged end view of one side of the attaching-frame, and Fig. 5 is a sectional view on the line yy of Fig. 4. Fig. 6 is a cross-sectional view of the attachment and a bed to which it is applied. Fig. 7 is a perspective view of the attachment removed.

Similar reference-numerals in the several figures indicate similar parts.

In illustrating my invention I have shown it applied to a bed having the usual head and foot portions 1, supporting the usual rectangular frame, consisting of the side rails 2 and end pieces 3, between which are carried the bed-springs supporting the mattress 4.

The device embodies, generally, a movable web or sheet 5, extending across the top of the mattress and connected at its ends to rollers 6 6', adapted to be operated alternately by a single operating mechanism to move the web to one side or the other of the bed, as will be described.

In order to adapt the invention to beds of the usual construction, I arrange end frames embodying a bar or tube 7, to the ends of which are attached elbows 8, carrying bearings 9, adapted to receive journals or arbors 10 in the ends of the rollers 6 6'. Mounted upon the tubes 7 and just within the elbows 8 are located brackets or supports 11, the upper ends of which are bent inward, as shown at 12, and those upon the same side, but at opposite ends, of the bed are connected by angle-bars 13, secured by bolts 14. The brackets 11 are shown as constructed of a strip of flat material, the lower end of which is secured to the tube 7 by being wrapped around it and the lapping portions fastened by bolts 11', and by loosening the latter the supports may be adjusted on the bar to vary the relative position of the side bars 14. These angle-bars are supported at the edges of the mattress 4 in line with the top thereof, and upon their outer edges are guide-rollers or idlers 15, journaled in brackets 16. The frames may be made in various sizes to fit beds of different widths, and to permit a relative adjustment of the side portions or side bars 13 to closely approach the sides of the mattress or for other purposes I provide a turnbuckle 17 in the bar or tube 7.

The web or sheet 5, composed of canvas or any suitable material, is considerably greater in length than the width of the bed, and its ends extending over the guides or idlers 15 are attached to the rollers 6 6', and the loose or extra portion thereof is wound upon said rollers until it is stretched tightly across the mattress. From this arrangement it will be seen that an invalid reposing upon the canvas belt or web can be carried or moved from one side of the bed to the other by revolving either of the rollers. To adapt a single operating device for rotating the latter, I provide sprocket-wheels 20 and 20', the former rigidly attached to the roller 6 and the latter loosely supported on the journal-pin or arbor 10 of the roller 6', and the two sprocket-wheels are connected for simultaneous operation by a chain 21. Also mounted on the arbor 10 is an op-

erating-wheel 22, the hub 23 of which is provided with a transversely-movable bolt 25, the inner end of which is adapted to cooperate with apertures 26 in the sprocket-wheel 20' when it is desired to move the web or sheet to the left by winding it upon the roller 6. A face-plate or disk 27, secured to the arbor 10 by a key 28, is provided with a series of apertures 29, with which the outer end of the bolt is engaged when it is desired to move the web to the right by winding it on the roller 6'. A suitable knob 30, attached to the bolt by a screw 31 extending through a slot 32 in the hub 23, forms a convenient means for manipulating the bolt to connect the operating-wheel 22 with the sprocket 20' or the disk or plate 27. From this construction it will be seen that either of the web-rollers 6 or 6' can be operated to move the web in the desired direction, and the changing diameter of the rollers as the web is wound thereon will not affect its tension or cause the chain to bind on the sprocket-wheels as the roller from which the web is drawn is loose. It will be further noticed that while the rollers are normally disconnected and the operating-wheel 22 is adapted to be alternately connected to the rollers through the sprocket-wheel 20' and the disk or plate 27 the rollers may be connected by shifting the bolt 25 so that its opposite ends will engage in the apertures 26 and 29 and the independent movement of the rollers or their movement in opposite directions is prevented. This arrangement of the device permits locking the rollers to prevent the unwinding of the web or canvas 5, so that the mattress 4 may be removed and replaced, if desired, without disturbing the patient.

Attachments such as I have described are simple and consisting of few parts are easily constructed and may be readily adapted to any width or style of bed. The web or sheet lying flat upon the mattress will permit a patient to be moved to a comfortable position thereon without lifting, and if it is desired to remove him from the bed entirely he may be moved close to one edge thereof in a convenient position for the assistant to transfer him to a chair, stretcher, or commode, or, as will be understood, a patient may be placed in the bed without lifting or rolling him.

I claim as my invention—

1. An attachment for beds embodying a frame, a web or sheet extending across the latter, winding-rollers thereon and a single operating device, and means for connecting the latter to either or both rollers whereby the web may be moved from side to side of the frame.

2. The combination with a bed, a frame mounted thereon consisting of end portions and side portions extending between the latter and relatively adjustable thereon, and rollers mounted on the frame, of a web or sheet having its ends wound upon the rollers and attached thereto, and means for operating the rollers.

3. In a bed attachment, the combination with end frames, side bars extending between the latter and adjustably secured thereto and guides mounted on the bars, of rollers supported on the end frames, and a web or sheet extending over the guides and having its ends attached to the rollers.

4. In an attachment for beds, the combination with end frames, rollers extending between the ends of the latter, and adjusting devices on said frames for varying the distance between the rollers, of side bars extending between the end frames, adjustable connections between the parts whereby the bars may be moved independently thereon and a web or sheet extending across the bars having its ends attached to the rollers.

5. In a bed attachment embodying end frames, rollers extending between their ends and adjusting devices on the frame for varying the distance between the rollers, the combination with side bars connecting the frames arranged between the rollers, and rollers on the bars forming guides, of a web or sheet extending over the guides and having its ends attached to the rollers on the frame.

6. In a bed attachment, the combination with a frame having winding drums or rollers supported in bearings at its opposite sides and a web or sheet extending over the frame and having its ends attached to the rollers, of a clutch member secured to one of the rollers, a clutch member mounted loosely on said roller, connections between the latter member and the other roller, and an operating device adapted to engage either clutch member to revolve the rollers.

7. In an attachment for beds, the combination with a frame having rollers thereon, and a web or sheet extending over the frame and having its ends attached to the rollers, of a stationary clutch member secured to one of the rollers, a movable clutch member mounted on said roller, connections between the movable clutch member and the other roller, and an operating-wheel arranged loosely upon the first-mentioned roller having an engaging device adapted to engage either clutch member whereby either of the rollers can be operated independently.

8. In an attachment for beds, the combination with a frame having rollers arranged upon its opposite sides, a web or sheet extending over the frame and attached at its ends to the rollers, of a disk secured to one of the rollers, a sprocket-wheel loosely mounted on said roller, and connections between the latter and the other roller, an operating-wheel journaled between the disk and sprocket-wheel, and adjustable means for engaging either the disk or sprocket-wheel with the operating-wheel.

9. In an attachment for beds, the combination with a frame having rollers arranged upon its opposite sides, a web or sheet extending over the frame having its ends attached to the rollers, of a disk secured to one of the

rollers and having the apertures, a sprocket-wheel journaled on said roller provided with apertures, and operating connections between the sprocket-wheel and opposite roller, an operating-wheel located between the sprocket-wheel and disk, and a movable member on the wheel adapted to engage the apertures in either the disk or sprocket-wheel.

10. The combination with a frame, a web or sheet extending across the latter, and winding-rollers attached to the web, of connections between the rollers, normally disengaged from one of them, an operating device, and a clutch connection adapted to connect either roller with said operating device and to connect said rollers against independent operation.

11. The combination with a bed, rollers arranged at opposite sides thereof, and a web or sheet extending over the bed and having its ends attached to the rollers, of a single operating device, detachable connections between the latter and the rollers, and a single locking device adapted to lock both of the rollers together.

12. In an attachment for beds, the combination with a frame having rollers arranged

upon its opposite sides, a web or sheet extending over the frame having its ends attached to the rollers, of a disk secured to one of the rollers, a sprocket-wheel, and operating connections between the sprocket-wheel and the opposite roller, an operating-wheel arranged between the sprocket-wheel and disk, and a movable member on the wheel capable of engaging either the disk or sprocket separately or of locking them in engagement.

13. The combination with a bed, rollers arranged at opposite sides thereof, and a web or sheet extending over the bed and having its ends attached to the rollers, of a sprocket-wheel loosely carried on one of the rollers, operating connections between the latter and the opposite roller, and locking means between the sprocket-wheel and the first-mentioned roller, a single operating device mounted upon one of the rollers and adapted to be connected with either one of the rollers.

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