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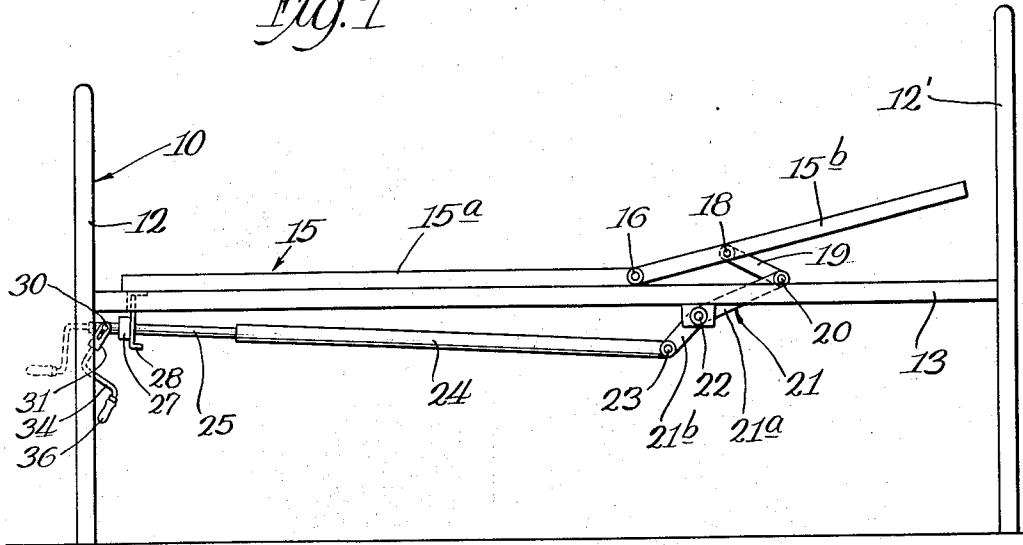
F. KUSTERLE

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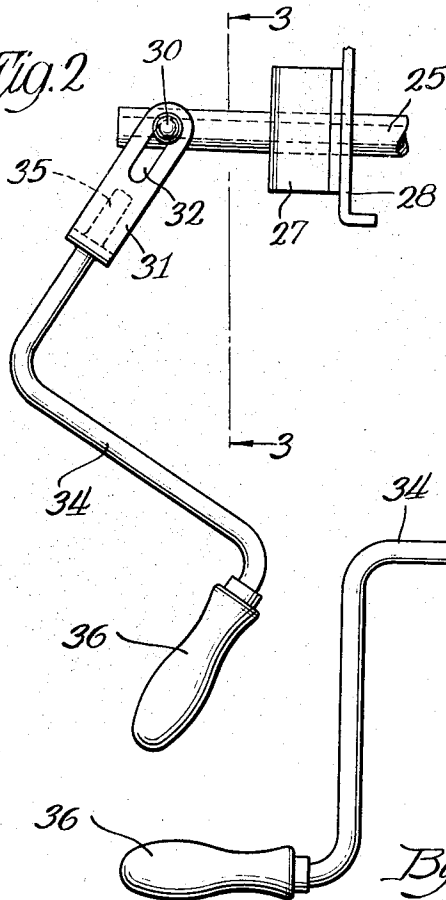
HOSPITAL BED ADJUSTING MECHANISM

Filed April 23, 1930

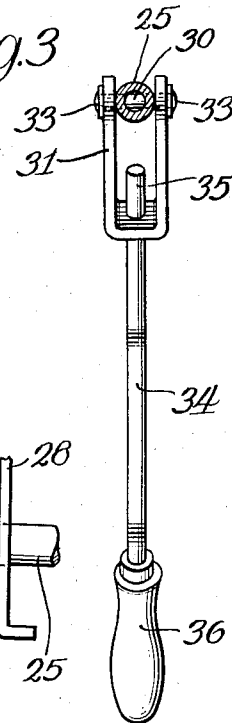
*Fig. 1*



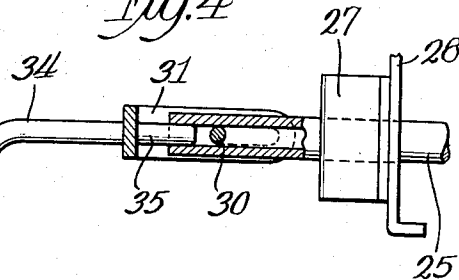
*Fig. 2*



*Fig. 3*



*Fig. 4*



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## UNITED STATES PATENT OFFICE

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## HOSPITAL BED ADJUSTING MECHANISM

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1 Claim. (Cl. 74—33)

My invention relates to adjusting devices and has to do more particularly with a device which is especially adapted for adjusting hospital beds.

It is desirable that hospital beds be adjustable in order that the position of the patient may be varied for various types of illnesses and for various degrees of convalescence.

I have provided an adjusting device which may be permanently attached to a bed and when not in actual use may be operatively disconnected so that it will not project from the bed. This is desirable in such institutions as hospitals wherein the aisles of wards containing a large number of beds must be kept clear at all times so as not to interfere with rapid movement of attendants.

A particular object of my invention is to provide a device of the type referred to which will be simple in construction, easy to operate by a person of slight mechanical skill and strength, and at the same time, rugged and durable.

Various other objects and advantages will be apparent to those skilled in the art as the description proceeds.

Referring now to the drawing forming part of this specification and illustrating a preferred embodiment of my invention.

Fig. 1 is a side elevational view of a bed embodying my invention;

Fig. 2 is an enlarged detailed elevation of a portion of the same, the crank being shown in disconnected or inoperative position;

Fig. 3 is a sectional view taken substantially on the line 3—3 of Figure 2, and

Fig. 4 is a detail similar to Figure 2 but with the crank in operative position.

In the drawing, the numeral 10 indicates generally a hospital bed or the like having end panels 12 and 12' and side rails 13. Arranged on the bed and resting upon the side rails is a spring indicated generally at 15 and preferably formed in two parts, 15<sup>a</sup> and 15<sup>b</sup>, pivoted together as at 16. It will be noted that the section 15<sup>b</sup> is somewhat shorter than the section 15<sup>a</sup>.

Pivoted to the section 15<sup>b</sup> of the spring, as at 18, is a link 19 to which is pivoted, as at 20, a bell crank 21, this bell crank being pivoted as at 22 to a suitable lug or bracket carried by the side rail 13. It will be noted that the bell crank comprises a relatively long arm 21<sup>a</sup> and a relatively short arm 21<sup>b</sup>, the latter being pivoted, as at 23, to a lever 24. The lever 24 is preferably tubular and has screw-threaded therein a rod 25. This rod is journaled in a suitable bearing 27 carried by a bracket 28 which is mounted in any suitable manner on the bed, as by being welded to the side rail 13.

Extending diametrically through the rod 25

adjacent its free end is a pin 30 which serves to retain a U-shaped strap 31. It will be noted from Figure 2 that the member 31 is provided with slots 32 extending longitudinally of the legs of the U and, as shown best in Figure 3, the stud 30 extends through the slots 32 and is headed over on the outside thereof as at 33. A crank 34 is secured to the strap 31 as by welding or the like and extends through the web portion of the U to form a stud-like projection 35. The crank 70 is preferably provided adjacent its free end with a rotatable manipulating handle 36.

It is believed that the operation of the device will be readily apparent from what has gone before. In its inoperative condition the crank occupies a position as shown in Figures 2 and 3 and in full lines in Figure 1. When it is desired to change the angle of elevation of the section 15<sup>b</sup> of the spring so as to raise or lower the upper portion of the patient's body, the crank is rotated about the stud 30 to a position as shown in Figure 4 and in dotted lines in Figure 1, the stud portion 35 of the crank being inserted into the end of the rod 25 so as to form, in effect, a prolongation thereof. The crank is then rotated in the proper direction, it being prevented from rotating relative to the rod 25 by means of the pin 30. The result of the rotation of the rod 25, by reason of its screw connection with the lever 24, is to rock the bell crank lever about its pivot 22 and through the link 19 to rock the elevation of the spring section 15<sup>b</sup>.

Various changes and modifications within the spirit of my invention will doubtless occur to those skilled in the art from the description herein given. Hence, I do not wish to be limited to the specific embodiment shown or uses mentioned except as set forth in the appended claim, which is to be interpreted as broadly as the state of the art will permit.

I claim as my invention:

In combination a shaft, said shaft having a hollow end portion, and a crank for rotating said shaft comprising a stud portion adapted to enter the hollow shaft end, and a U-shaped metal member having opposite leg portions and a connecting strap at one end, said connecting strap being apertured and said stud portion of the crank extending through said opening so as to project beyond said connecting strap between said leg portions, said leg portions projecting forwardly beyond said stud portion and embracing said shaft end portion, and a pin and slot connection between said leg portions and the embraced portion of said shaft end for permitting engagement and disengagement of said stud and shaft end and folding of the crank relative to said shaft.

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