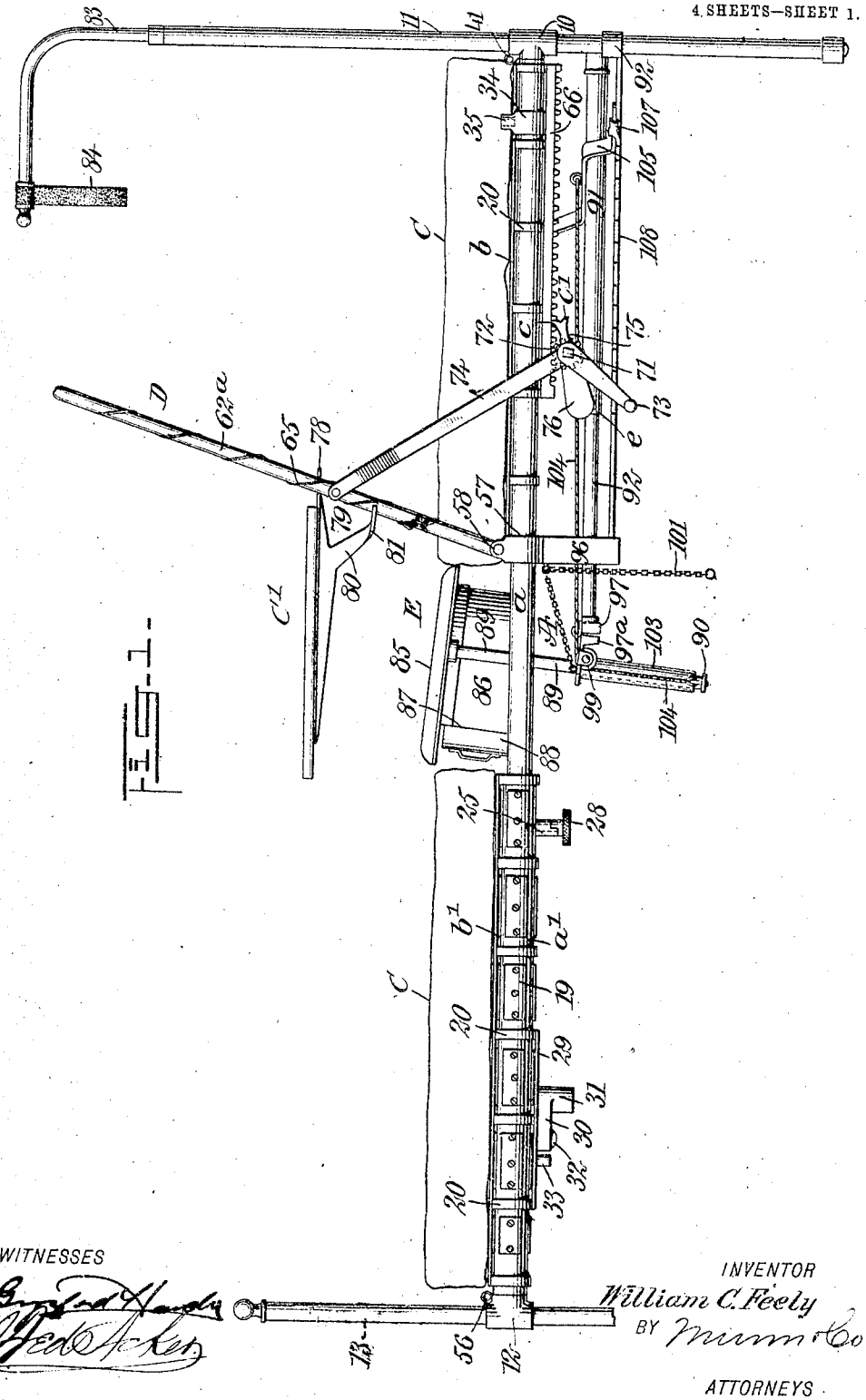
No. 892,817. PATENTED JULY 7, 1908.

W. C. FEELY.

INVALID BED WITH COMMODE ATTACHMENT.

APPLICATION FILED JUNE 12, 1906.

4 SHEETS—SHEET 1.



WITNESSES

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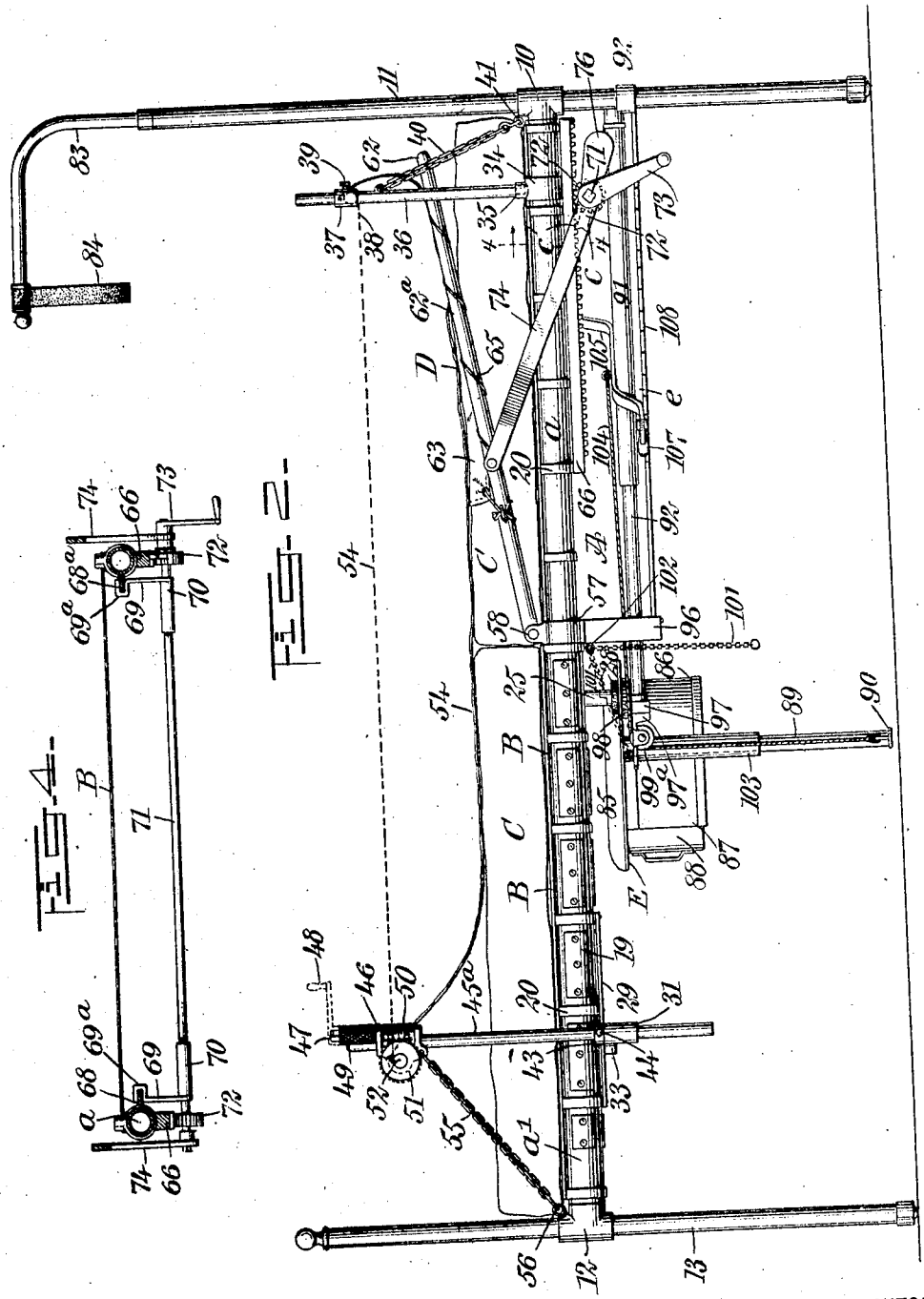


FIG. 2.

FIG. 4.

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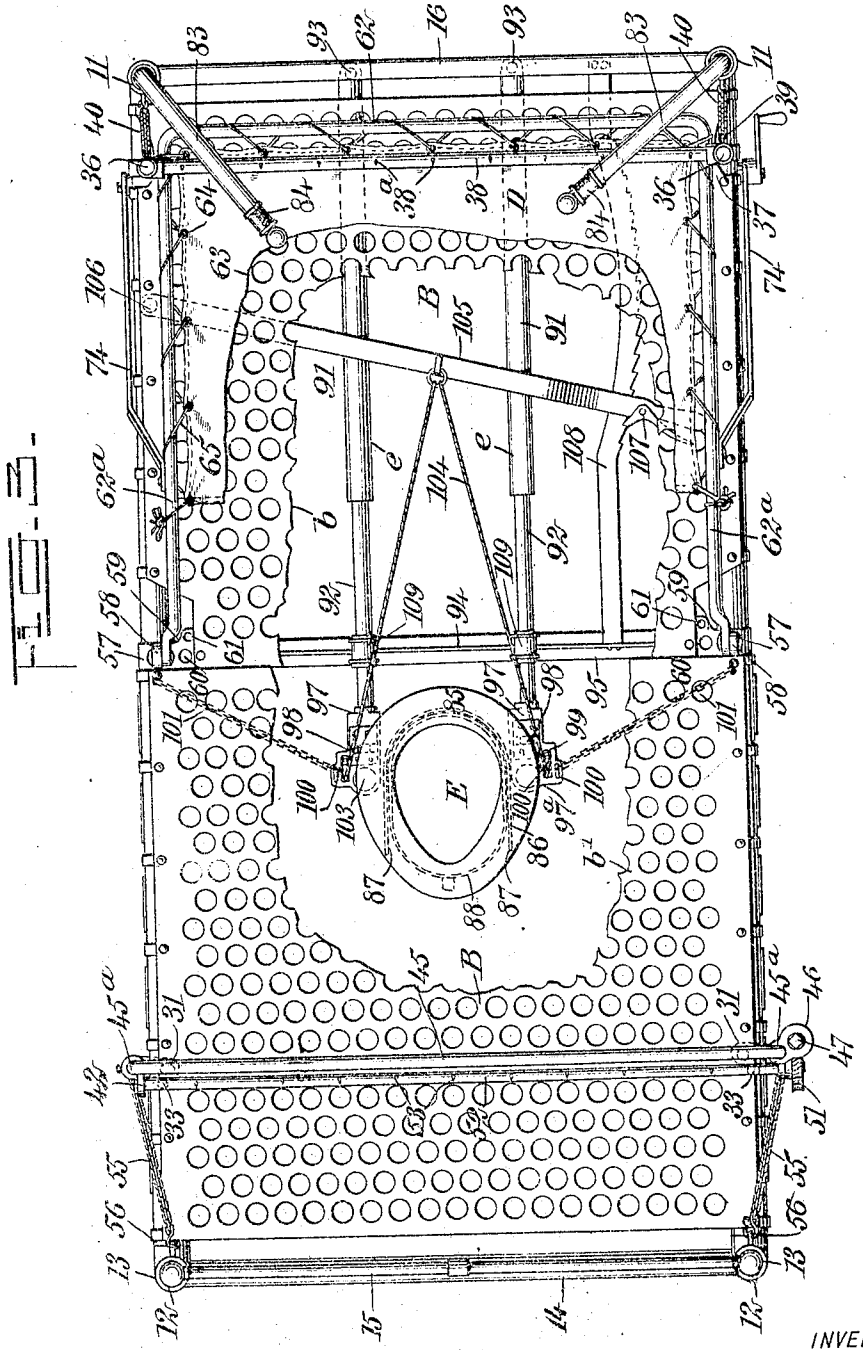
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4 SHEETS—SHEET 3.



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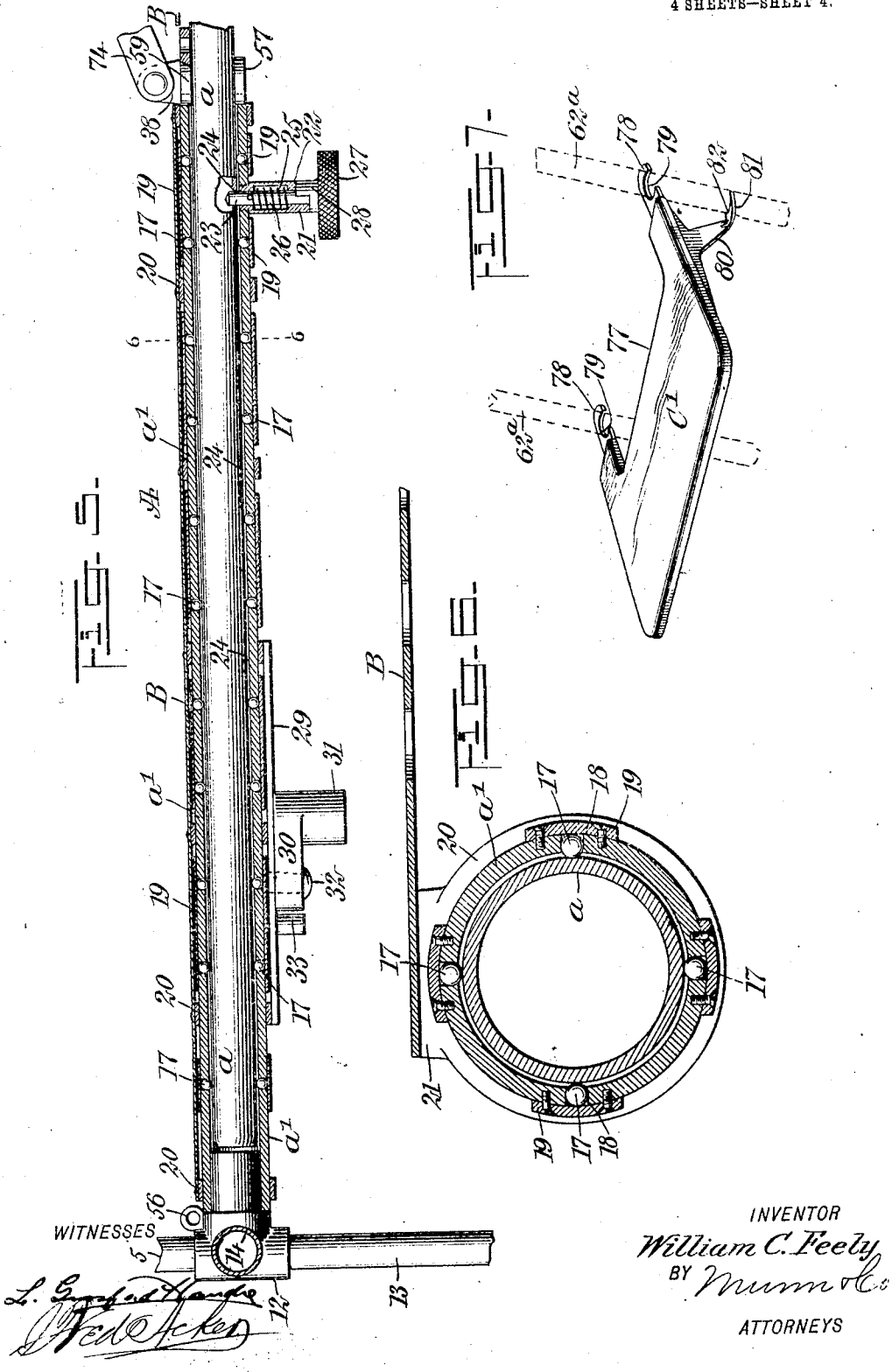
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4 SHEETS—SHEET 4.



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INVALID-BED WITH COMMODE ATTACHMENT.

No. 892,817. Specification of Letters Patent. Patented July 7, 1908.

Application filed June 12, 1906. Serial No. 321,335.

To all whom it may concern:

Be it known that I, WILLIAM C. FEELY, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Invalid-Bed with Commode Attachment, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a very simple construction of an invalid bed and commode attachment therefor, constituting a fixture relatively to the bed and having vertical and lateral adjustment, and wherein the body is provided with head and foot telescopic sections, the commode being located at the parting of said sections.

A further object of the invention is to provide a simple arrangement of parts wherein the commode can be quickly elevated for use when the sections of the bed frame are separated, the commode at such time being brought practically to a position in alinement with the upper faces of the mattress, the latter being made in sections corresponding to the sections of the frame, and wherein also the commode may be quickly lowered to a position beneath the frame of the bed, which is its normal position, the frame of the bed at such time being readily closed.

It is a further purpose of the invention to provide a rocking support for the commode, so that when in use the patient can automatically adjust it to obtain the most convenient or agreeable position.

Another purpose of the invention is to provide a maximum of movement for the commode longitudinally of the bed, so that when not in use it can be carried beyond the point of connection between the two sections when the sections are closed, as for example to a point below the central section of the bed frame.

Another purpose of the invention is to provide a tubular frame, and ball bearings where one member of the frame telescopes the other.

Another purpose of the invention is to provide a simple yet effective form of head rest and simple and convenient means for quickly and conveniently adjusting the head rest and locking it in adjusted position, the locking device employed being of a shifting character, so that in one of its positions the head rest may be elevated to a position substantially at right angles to the frame of the bed, so as to support the body of the patient, at which time the head rest can not be forced rearward, and in another position of the locking device the head rest may be adjusted downward but is locked against upward movement.

A further purpose of the invention is to provide a reading and dining table attachment for the head rest and separable therefrom, yet capable of being quickly placed in position thereon and held in position.

It is also an object of the invention to provide a means for bodily lifting the patient, so that the bed can be readily made up without disturbing the patient, and furthermore to so construct the entire bed that it may at a moment's notice be converted for use as an operating table.

Another purpose of the invention is to provide means for the attachment to the bed of suspensory devices for holding the limbs in required positions, and with attachments which will enable the patient to lift himself upward, or exercise to a limited extent while in the bed.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the bed, the sections being separated, the commode being shown in position for use and the head rest being shown elevated with the table in position thereon; Fig. 2 is a side elevation of the bed with its sections closed, the commode being in its normal or lower position and the head rest being shown lowered; this view also shows the application to the bed of means for bodily raising the patient; Fig. 3 is a plan view of the bed closed, parts being broken away to disclose the commode and its supporting and operating devices; Fig. 4 is a transverse section taken practically on the line 4—4 of Fig. 2; Fig. 5 is an enlarged longitudinal section through one of the telescopic side rails or members of the bed frame; Fig. 6 is a transverse section taken practically on the line 6—6 of Fig. 5 and drawn upon a still larger scale; and Fig. 7 is

a detail perspective view of the table attachment for the head rest.

A represents the side pieces of the bed frame. These side pieces are tubular and are constructed in two sections, a forward section *a* and a rear section *a'*. The forward sections of the side pieces enter and slide in the rear sections *a'* as best shown in Fig. 5. The forward sections *a* of the side pieces are provided with fittings 10 in which the posts 11 for the head portion of the bed are properly secured, and the outer or foot sections *a'* of the said side pieces also terminate in fittings 12, which receive the posts 13 for the foot of the bed. The posts 11 constitute a portion of the head board and form the legs for the head portion of the bed, and the posts 13 constitute a portion of the foot board and form the legs for the foot end of the bed.

The fittings 12 at the foot of the bed frame are connected by a suitable and preferably tubular cross bar 14, and a similar bar is employed for a similar purpose at the head of the bed. The panel 15 constituting the foot board, and which connects the upper ends of the foot posts 13, may be made in any suitable or approved manner, as may likewise the head panel 16 connecting the posts at the head of the bed.

The outer section *a'* of each side piece A of the bed frame is provided with series of ball bearings 17, and these ball bearings 17, as is best shown in Fig. 6, are located in pockets 18 which extend entirely through the said sections *a'*, so that the said balls have bearing against the outer face of the inner sections *a* of the said side pieces A of the frame. The balls 17 are held in place by plates 19, or their equivalents, which may be termed cover plates, since they close the outer ends of the pockets 18; and these cover plates 19 are secured in place by screws or equivalent fastening devices. The plates may be of any suitable size, for example, one plate may be of sufficient size to cover two or more pockets, or each pocket may be provided with an individual cover plate.

Straps 20 are located upon both the outer and the inner sections of the side pieces A of the frame, fitting closely thereto and being secured thereon in any suitable or approved manner; and as shown in Fig. 6, the upper portions of said straps 20 are enlarged and flattened, and these flattened portions of said straps 20 receive and have attached thereto the bottom member B of the bed frame. This member B is in two sections designated as *b* and *b'*, one section, the head section *b*, being carried by the members or sections *a* of the side pieces, and the section *b'* of the said bed bottom is carried by the foot members or sections *a'* of the said side pieces of the bed frame. Adjacent to the inner end of the foot section *a'* of one of the side pieces A of the said bed frame a sleeve 21 is secured and extends downwardly therefrom as best shown in Fig. 5; and the lower end of said sleeve 21 is provided with a stepped recess 22 as also shown in Fig. 5. A pin 23 slides loosely in the sleeve 21 and extends through the side member *a'* of the frame to which the sleeve is secured, and the inner end of the said pin 23 is adapted to enter any one of a series of apertures 24 produced in the inner member *a* of the same side piece A of the frame. The pin 23 is normally held in position to enter any of the recesses 24, or is held in one of said recesses by means of a spring 25, located in a suitable enlargement 26 produced in the said sleeve, and the pin 23 at its outer end is provided with a head 27 preferably milled. This head 27 has an integral collar 28 correspondingly recessed to the recessed portion 22 of the sleeve. When the recessed portion 22 of the sleeve 21 is fitted snugly to the recessed portion of the collar 28, the pin 23 will extend into the inner member *a* of the side piece A of the frame in connection with which it operates, and at such time the bed frame will be locked in its adjusted position; and when it is desired to open or to close the bed, the pin 23 is drawn downward and is turned until the higher portion of the recessed part of its collar 28 engages with the longer lower portion of the sleeve 21. In this manner the pin will be held out of engagement with the inner member of the side section of the bed, permitting the foot section of the bed to be drawn out from the head section, or be brought in close engagement therewith so as to thoroughly close the bed. It is also evident that the bed may be opened to any desired extent within the limit of the members *a* of the side pieces A of the frame.

The mattress C is made in two sections, practically corresponding in dimensions to the dimensions of the head and foot sections of the bed frame as illustrated in Fig. 2; and as is best shown in Fig. 5, adjacent to the outer end of the foot section of the bed a plate 29 is secured to the under face of the members *a'* of the side pieces A. Each of the said plates carries a horizontal arm 30 having a vertical socket member 31 integral therewith or attached thereto, the arms 30 being pivotally connected with said plates 29 by a suitable pivot pin 32. At the rear of the pivoted portion of the arms 30 downwardly-extending pins 33 are also secured to the said plates 29. When the arms 30 and accompanying sockets 31 are carried out so as to stand at right angles to the side pieces of the body, as is shown in Fig. 2, the said arms 30 engage with the said pins 33, and the latter prevent the further rearward movement of the socket arms. In connection with the said socket arms 30 bands 34 are employed, which bands are tightly secured on the forward members *a* of the side pieces A of the frame. Each band

34 is provided with a socket 35 at its upper central portion as is also shown in Fig. 2. The socket bands 34 and socket arms 30 are adapted to be brought into requisition to support devices for raising the patient from the mattress in order to make up the bed or for other obvious purposes. Uprights 36 are located in the sockets 35 of the bands 34, and each upright 36 is provided with a sleeve 37 slidably mounted thereon. The sleeves are connected by a cross bar 38, which cross bar 38 is provided with hooks 38ª upon its upper surface as illustrated best in Fig. 3. The sleeves and the bar connected therewith are held in adjusted position by set screws 39 passed through the sleeves to an engagement with the uprights. The uprights 36 are prevented from inclining in direction of the foot of the bed by chains 40, which are attached to the uprights and are connected with the side pieces A of the frame through the medium of eyes 41 located on the fittings 10.

An arched support 45 is used in connection with the socket members 31 of the arms 30, the vertical members 45ª of said arched support being passed loosely through said socket members 31 as is shown in Fig. 2; and the arched support 45 is held in adjusted position relatively to the bottom of the bed by means of collars 43 loosely mounted on the upright members 45ª, which collars are provided with set screws 44, and said collars when the arched support is in position having bearing upon the upper faces of the arms 30, as clearly shown in Fig. 2.

A horizontal bracket 42 is carried from one side of the arched support 45 adjacent to its upper portion as is shown in Fig. 3; and a bracket 46 is likewise provided on the opposing side member of the arched support adjacent to its top. The bracket 42 is a single bracket, whereas the bracket 46 is what may be termed a double bracket. The bracket 42 extends toward the foot of the bed, and a section of the bracket 46 likewise extends in the same direction. The other portion of the bracket 46 extends outward in direction of the side of the bed as shown in Figs. 2 and 3.

A spindle 47 is journaled in the section of the bracket 46 which extends in direction of the side of the bed, and the upper end of the said spindle is rendered polygonal in order that a crank handle 48 may be applied to turn the said spindle when necessary, and above the portion of the bracket in which the said spindle has bearing the spindle is enlarged and is milled, so that said spindle may be turned by hand when a fine adjustment is necessary. Furthermore, that portion of the spindle which is in the bracket is provided with a worm 50, and said worm engages with a worm wheel 51 on a shaft 52, which shaft is at the rear of the arched support and is journaled in a bracket 42 and the rearwardly-extending section of the bracket 46. The shaft 52 is provided with hooks 53 corresponding to the hooks 38ª on the cross bar 38.

A sheet 54 of canvas or like material is attached at one end to the shaft 52 by means of its hooks 53, and at its opposite end is attached to the cross bar 38 by means of its hooks 38ª. This sheet normally lies on the mattress C and the patient on the sheet, and when it is desired to raise the patient it is simply necessary to turn the spindle 47, whereupon the foot portion of the sheet 54 will be wound upon the shaft 52 and the said sheet may be drawn taut and made to occupy any desired position above the mattress. The sheet 54 need not be always present, since the attachment just described may be applied to the bed only when it is necessary to elevate the patient for any purpose, as for example to ventilate and make up the bed.

The arched support 45 is prevented from inclining toward the head of the bed by attaching chains 55 to the brackets 42 and 46 and securing the said chains to the foot portion of the bed by means of eyes 56 carried by the fittings 12 at the foot of the bed, as is shown in Figs. 2 and 3.

Opposite the inner end of the head section of the bottom B of the bed frame, a collar or sleeve 57 is secured upon the head member *a* of each side piece A, and each collar or sleeve 57 is provided with an upwardly-extending lug 58, and a horizontal shelf member 59 is carried from the upper inner portion of each collar or sleeve 57 as shown in Fig. 3. Each shelf member 59 is provided with apertures 60 and 61, adapted to receive the lower ends of uprights for supporting a limb of a patient, or for holding straps or for other purposes when the bed is used particularly as an operating table, since it can be so used by drawing the foot section far enough away from the head section to permit a surgeon to have ample space for necessary movement; and at such time it may be necessary to support the limbs of a patient. To that end the openings 60 and 61 are provided to receive necessary supporting devices, which openings may be of greater or lesser number than shown.

In connection with the head section of the bed I employ what I term a head rest D, which device not only supports the head of a patient, but also acts as a support for the back. This device consists of a bow or substantially U-shaped frame 62, the side members 62ª whereof are pivotally attached to the lugs 58 extending from the sleeves or collars 57 as shown in Figs. 1, 2 and 3. A back is provided for the said frame, consisting preferably of a strip of canvas 62 of equivalent material, which is located within the said frame 62 and is provided with eyelets 64, whereby the said back 63 may be connected with the bow frame 62 by means

of lacings 65 passed through the eyelets 64 and around the frame as particularly shown in Fig. 3; but any other approved means may be employed for securing the back to the frame.

A rack 66, the teeth of which face downward, is secured to the under face of each head member *a* of each side piece A of the bed frame; and this rack extends from the head ends of the said members *a* as far as may be desired in direction of the foot members *a'*. The said head members *a* of the side pieces A of the frame are provided with longitudinal horizontal flanges 68 at their inner faces, as shown in Fig. 4, and said flanges extend the length of the rack 66. These flanges 68 slidably receive the head portions 69[a] of hangers 69 and each hanger 69 is provided with a horizontal bearing 70 at its lower end, in which bearings the end portions of a shaft 71 are journaled, the said shaft 71 extending transversely of the head section of the bed frame as is likewise shown in Fig. 4.

The shaft 71 is provided with a pinion 72 on the end portions of the shaft, which extend out beyond the bearings 70, and one end of the shaft 71 is fitted to receive a removable crank handle 73, whereby to turn the said shaft, as also shown in Fig. 4. The end portions of the shaft 71 are pivotally connected with the side members 62[a] of the bow frame 62 of the head rest D by means of suitable links 74 shown best in Fig. 3.

At that end of the shaft 71 to which the crank handle 73 is applied, a pawl 75 is mounted to turn on the shaft, which pawl is provided with a handle 76 within easy reach of the operator. The said pawl is provided further with two opposing prongs *c* and *c'*, shown best in Fig. 1, and these prongs are curved in an opposite direction and are likewise so shaped as to extend beneath the rack 66 adjacent to which it is located, whereas the body of the pawl is beyond the plane of the outer face of the rack, enabling the pawl to be reversed readily through the medium of the handle 76 to bring one or the other of the prongs *c*, *c'* into engagement with the teeth of the rack.

When the prong *c* is in engagement with the teeth of the rack as shown in Fig. 1, and the shaft 71 is turned, the head rest may be elevated as far as may be desired, or carried toward the foot to a desired angle relatively to the frame of the bed, and the said pawl will absolutely prevent the downward or head-ward movement of the said head rest. When it is desired to adjust the head rest from a substantially upright to a lower position, the pawl 75 is reversed so as to bring the prong *c'* in engagement with the teeth of the adjacent rack 66, and under this adjustment when the shaft 71 is turned the head rest will be carried downward in direction of the bottom of the bed and can not be forced in an upward direction. This shifting mechanism for the head rest is exceedingly simple, it is positive and effective and adjustments of the head rest can be quickly and conveniently made, and so as not to cause discomfort to the patient while such adjustments or changes are being made.

In connection with the head rest D I employ a table C', which is removable from the head rest and yet can be quickly adjusted thereto and safely supported thereon. This table C' is shown in Fig. 7 and is provided with a cut-away portion 77 in its inner edge between its ends, and at such end portions horizontal arms 78 are provided, which extend in direction of the head of the bed or away from the front of the table. One arm is provided with a recess 79 in its inner edge, and the opposing arm 78 with a corresponding recess 79 in its outer edge. Two other arms 80 are provided at the end portions of the table, extending downward and rearward therefrom, or downward and in direction of the inner edge of the table, and each of the said latter-named arms 80 is provided with a horizontal foot member 81, each foot member being provided at its end with a recess 82. When applying the table the recesses of the arms 78 are made to receive the side portions of the side members of the bow frame 62 of the head rest, while the recesses of the foot members 81 of the arms 80 are made to receive and said foot members to bear upon what may be termed the front faces of the aforesaid side 62[a] of the head rest frame, as is shown in Fig. 1 and is likewise indicated in Fig. 7.

The head posts 11 are hollow and are adapted to receive angle arms 83, the horizontal members whereof extend in direction of the foot of the bed, so that the arms 83 are free to turn in the said posts 11. At the end of the horizontal member of each arm 83 a strap 84 is attached, which may be in the form of a loop, as is particularly shown in Figs. 1 and 2, and by the assistance of these straps a patient may raise himself more or less, and in fact may in a measure exercise himself.

I desire it to be understood that equivalents of the arms 83 may be applied to the bed at the shelves 59 for example, or at any other point along the line of the foot section of the bed, to enable the patient to introduce his feet so as to open the bed himself, when strong enough. Furthermore in connection with the bed as described I employ a commode E. This commode consists of the usual seat 85, which is suitably secured upon a body section 86, closed except at its rear portion, as is shown at 87 in Figs. 1, 2 and 3,

and the said body 86 is adapted to receive a vessel 88, removable therefrom. Legs 89 extend down from the upper portion of the body 86, and the said legs 89 are provided preferably with flanges 90 at their lower ends. The said commode is supported by horizontal telescopic arms *e*, which arms are in two sections, an outer section 91 and an inner section 92, the inner section of each arm being arranged to slide in the outer section 91, and the outer sections 91 of the said supporting arms *e* are pivotally attached to a cross bar 92^a, located below the frame of the bed, the said cross bar being secured to the head posts 11 of the bed frame. The pivot pins of the said arms *e* are designated as 93 and are indicated in Fig. 3. The inner end portions of the inner members 92 of said arms *e* are supported by a cross bar 95, provided with an upper track rail 94, and the said cross bar 95 is supported by hangers 96, which extend down from the band 57 as is illustrated in Figs. 1 and 2.

At the inner end of each of the inner members 92 of the arms *e* a head is formed, and each head is in two sections 97 and 97^a. The sections 97 are preferably rectangular and form an intergal portion of or are fixedly attached to the inner ends of the said inner sections 92 of the arms *e*, and each section 97^a is connected with a section 97 by means of a hinge 98, the hinge being located at the upper portion of the head as is shown in Figs. 2 and 3. In each head section 97^a an opening is made, and in said opening a pulley 99 is mounted to turn. Each head section 97^a is provided with an eye 100, and a chain 101 is passed from each eye 100 in direction of a side of the bed, and said chains are then passed through guides 102, preferably secured to the hangers 96, so that by drawing down upon either chain 101 the commode may be carried to the right or to the left as may be desired. The commode is adjustably supported by the said arms *e* through the medium of tubes 103, which tubes extend down from the head sections 97^a of the arms *e* as is shown in Figs. 1, 2 and 3. The legs 89 pass down through the said tubes, having sliding movement therein, the flanges 90 of the legs limiting the upward movement of the commode as indicated in Fig. 1. The said flanges 90 have attached thereto a cord, cable or chain 104, and these cords, cables or chains are carried upward and are passed over the pulleys 99 in the head section of the supporting arms *e* and are connected in any suitable or approved manner to the lever 105 which is pivoted at one end to one side portion of the bed frame, as shown at 106 in Fig. 3; and at the opposite or handle end of the lever 105 a pawl 107 is pivoted, adapted for engagement with a rack 108 stationarily secured to the head portion of the bed and extending longitudinally thereof. Thus it will be observed that by the movement of the lever 105 in one or the other direction, the commode may be raised and lowered after the sections of the bed have been drawn apart to provide a passage for the said commode, as is shown in Fig. 1, and that the commode can be adjusted laterally through the medium of the aforesaid chains 101 or their equivalents. Furthermore, the commode can be adjusted lengthwise of the bed, owing to the telescopic construction of its supporting arms *e*, and especially it is evident that the hinge connection between the sections 97 and 97^a of the head portions of the said supporting arms *e* enables a patient to rock the commode on its support so as to bring it into the most desirable position.

The bed, as a whole, is exceedingly simple in its construction, is readily understandable, and is adapted for both hospital and private purposes, being not only a bed associated with a commode, but as is stated the bed may be instantly converted into a form for use as an operating table, thus oft-times obviating the painful necessity of removing the patient from the bed to a regular operating table.

In order that the supporting arms *e* for the commode E may have guided movement as the commode is shifted transversely of the bed, grooved rollers 109 are slidably mounted upon the rear or foot members 92 of the said arms, and the said rollers 109 engage with the track 104 on the transverse bar 95, as is shown in Fig. 3.

I desire it to be understood that when fractured limbs are to be treated the arched support 45 and its accompanying part are of great service, as by their use a limb can be placed under any degree of tension and held thus, and any desired number of the said arched supports may be used, and they may be placed at any convenient point on the bed.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent,—

1. In an invalid bed, the combination with the bottom section thereof and sockets secured to the side pieces of the said bottom section, of supports fitted to said sockets, a spindle carried by one of said supports, provided with a worm and with a roughened surface above the worm, the said spindle being adapted to be turned by a crank handle or by hand, a shaft carried by the support on which the spindle is located, a worm wheel secured to the said shaft, meshing with the worm in the said spindle, a bar carried by the opposing supports, and a sheet removably attached to the said shaft and to the said bar, whereby to elevate the patient when required.

2. In invalid beds, removable supports, means for attaching said supports to the side members of the bed, an adjustable bar car-

ried by the supports at one end of the bed, a shaft carried by the supports at the opposite end of the bed, a spindle carried by the same support, having driving connection with the same shaft, and a sheet connected with the said bar and with the said shaft, whereby to raise and lower the said sheet to and from the bottom portion of the bed.

3. In invalid beds, removable supports, means for attaching said supports to the side members of the bed, an adjustable bar carried by the supports at one end of the bed, a shaft carried by the supports at the opposite end of the bed, a spindle carried by the same support, having driving connection with the same shaft, a sheet connected with the said bar and with the said shaft, whereby to raise and lower the sheet to and from the bottom portion of the bed, and removable braces connected with the said supports and with the head and foot portions of the bottom of the bed frame.

4. In an invalid bed, a bottom section having telescopic side members, a commode supported beneath the bottom of the said bed, the supports for the said commode being telescopic in themselves and pivotally connected with the frame of the bed, and means for raising and lowering the said commode, whereby the commode has end movement relatively to the bed and likewise side movement and vertical movement.

5. In invalid beds, a separable frame, telescopic supports pivoted to the said frame at one end, the said supports terminating in heads constructed in hinge-connected sections, the outer section of each head being provided with a downwardly-extending tube, a commode provided with legs extending through and having free movement in said tubes, an elevating device for the commode, connected with said legs, guides for the said elevating devices carried by the said heads, a lever for operating said devices, and locking means for the lever.

6. In an invalid bed, a head rest pivotally connected with the side pieces of the frame of the bed, racks secured to the under faces of the said side pieces of the bed, hangers slidable upon the side pieces of the bed frame, a shaft carried by said hangers, pinions on the shaft for engagement with the racks, link connections between the head rest and the said shaft, and a double-faced pawl for engagement with one of the said racks, reversibly mounted on the said shaft.

7. In a bed, the combination with the side pieces of the bed, of a head rest pivotally attached to the said side pieces, racks carried by the said side pieces, shafts slidably mounted with reference to the said side pieces, pinions on the said shafts for engagement with the said racks, pivotal connections between the shafts and the head rest and a pawl loosely mounted on the said shaft at one end, having opposing spurs, either of which spurs is adapted for engagement with the teeth of one of the racks to check the movement of the head rest in either a forward or a rearward direction as required.

8. In a bed, the combination with the side pieces thereof provided with racks, a bow frame pivoted to the said side pieces, a back for the said frame, which frame and back constitute a head rest, longitudinal flanges extending from the inner faces of the said side pieces, hangers mounted to slide on the said flanges, a shaft journaled in the said hangers, pinions on the said shaft for engagement with the teeth of the said racks, link connections between the side members of the bow frame and the said shaft, and a pawl mounted to turn on the said shaft at one end, having a forked extremity, providing opposing oppositely curved spurs, either of which can be brought into active engagement with the teeth of one of the racks.

9. In an invalid bed, a commode and supporting devices therefor, which devices are pivoted at the head section of the bed, the main supporting members of the said supporting devices having telescopic movement in direction of the length of the bed and lateral movement relatively to the sides of the bed.

10. In an invalid bed a tubular frame, having telescoping side pieces, a locking device for the telescoping side pieces, an angular arm mounted to turn in each of the head posts of said frame, and straps pendent from the said arms.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM C. FEELY.

Witnesses:
J. FRED. ACKER,
E. C. NIELSON.