

Sept. 27, 1932.

H. F. GLEIM

1,879,185

BENCH

Filed Feb. 12, 1932

2 Sheets-Sheet 1

*Fig. 1.*

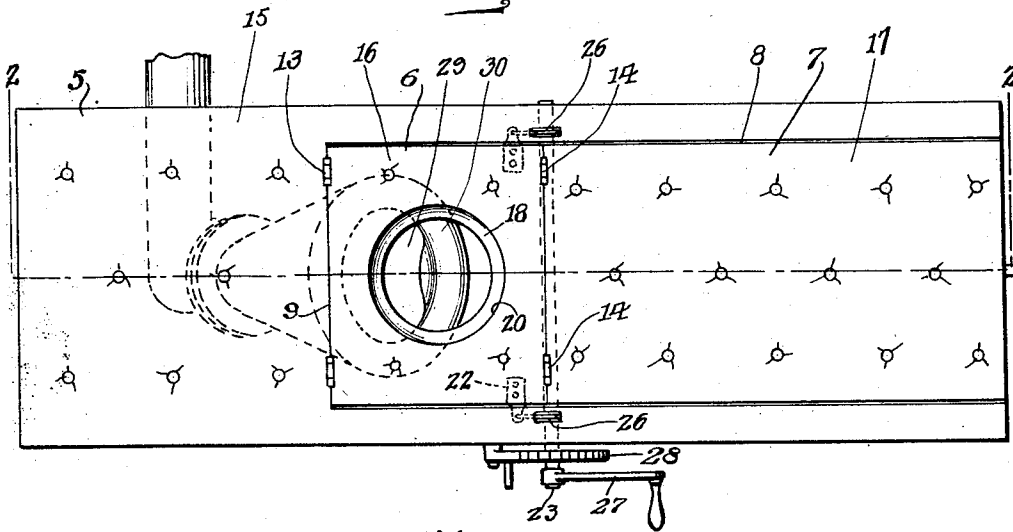
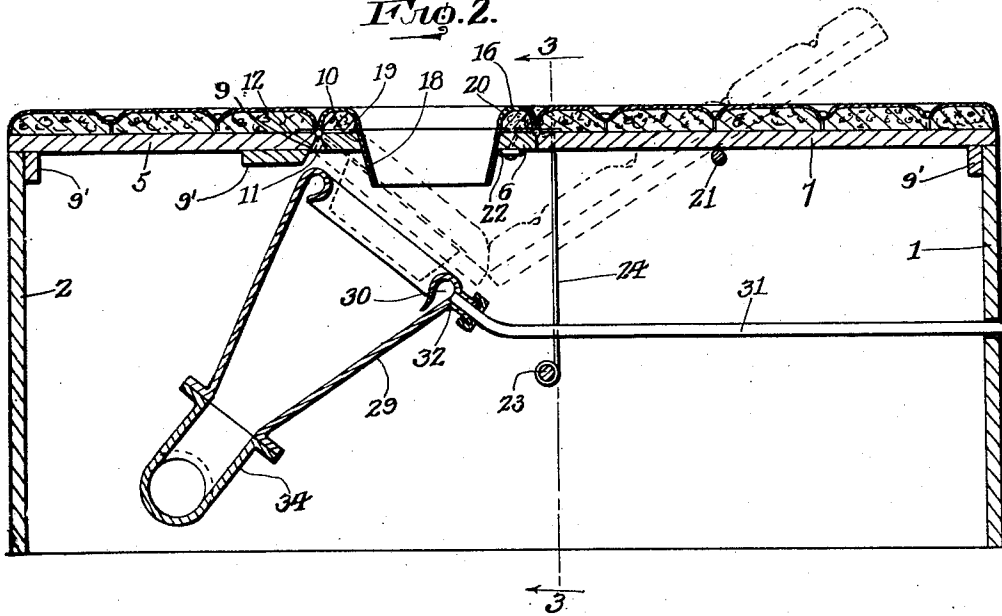


*Fig. 2.*



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2 Sheets-Sheet 2

*Fig. 3.*

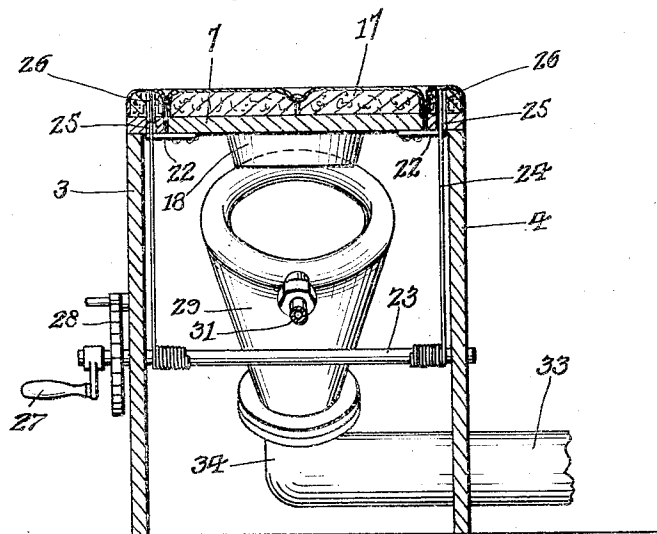
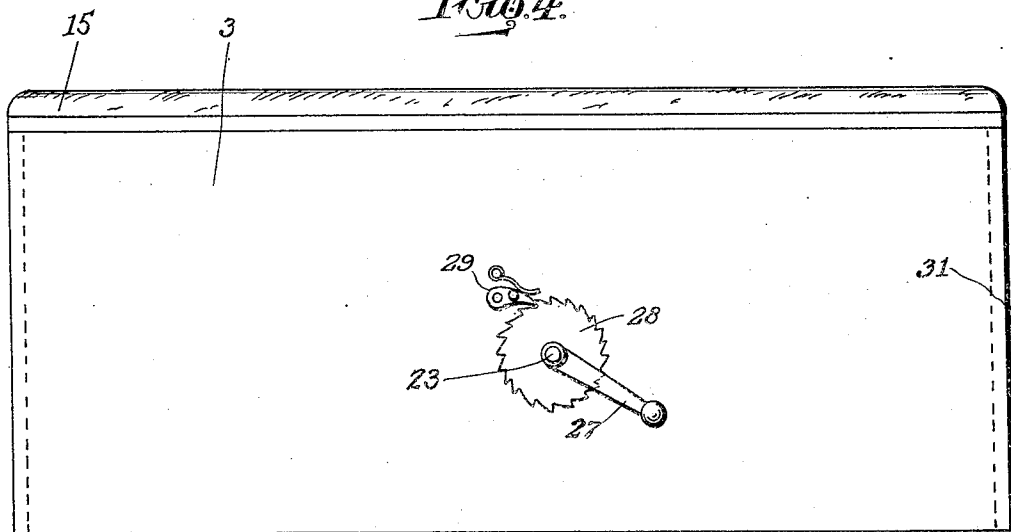


*Fig. 4.*



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# UNITED STATES PATENT OFFICE

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## BENCH

Application filed February 12, 1932. Serial No. 592,620.

This invention relates to a bench, couch or bedstead for use in colon irrigating operations, but it is to be understood that a structure, in accordance with this invention may be employed in any connection for which it may be found applicable, and the invention has for its object to provide, in a manner as hereinafter referred to, an adjustable bench, couch or bedstead for supporting a patient without discomfort during the filling and evacuation of the human colon and so constructed and arranged for carrying off of the ejected fecal matter.

Further objects of the invention are to provide, in a manner as hereinafter set forth, a bench, couch or bedstead for use in colon irrigating operations and which is comparatively simple in its construction and arrangement, strong, durable, compact, thoroughly efficient in its use, including a seat and a back conveniently adjusted in angular relation with respect to each other for supporting the buttocks and back of a patient in the desired position during the colon irrigating act, and comparatively inexpensive to set up.

To the above ends essentially and others, which may hereinafter appear, the invention consists of such parts and combination of such parts as fall within the scope of the invention as claimed.

Figure 1 is a top plan view of a bench, couch or bedstead in accordance with this invention.

Figure 2 is a section on line 2—2 Figure 1.

Figure 3 is a section on line 3—3 Figure 2.

Figure 4 is an elevation looking towards one side.

The bench, couch or bedstead and hereinafter termed a bench is of rectangular contour and includes a body part formed of a front end wall 1, a rear end wall 2, a pair of side walls 3, 4 and a top formed of sections 5, 6 and 7. The sections 6 and 7 are arranged within and shiftable relatively to section 5. The sections 6, 7 are capable of being angularly disposed relatively to each other.

The top section 5 is stationary. It is mounted on, flush at its sides and ends with and fixedly secured to the walls 1, 2, 3 and 4, as well as being formed with a lengthwise disposed rectangular cutout 8 open at its front end and closed at its rear. The open end of cutout 8 is arranged at the front end wall 1. The rear end wall of cutout 8 is indicated at 9 and is positioned between the transverse median of section 5 and the rear end thereof. Combined support and cross braces are indicated at 9'.

The top section 6 is square. The top section 7 is rectangular. The section 6 has a centrally arranged opening 10 having a flaring wall. The rear side of section 6 is beveled, as at 11. The wall 9 is beveled as at 12 and such bevel is oppositely disposed with respect to bevel 11. The section 6 at its rear is hinged, as at 13 to section 5 at the end wall 9 of cutout 8. The bevels 11 and 12 permit of the moving of the rear side of section 6 towards wall 9 when such section is shifted from normal position. The forward side of section 6 is hinged as at 14 to the rear end of section 7, and the latter when in normal position has its forward end seat upon the top of wall 1. The sections 5, 6 and 7 of the top are provided throughout with upholstered cushions 15, 16 and 17 respectively and each of which is fixedly secured to its associated section. Secured to section 6, snugly engaging the wall of opening 10 and depending from the latter is a flared annulus 18 of the desired height. The annulus 18 has an outwardly directed annular flange 19 which seats upon section 6, is suitably secured to the latter and borders the top of opening 10. The pad 16 has an opening 20 formed with a flared wall, the latter providing a continuation of the opening 10.

The section 7 is mounted upon a combined supporting and retaining bar 21 secured to walls 2 and 3 and disposed transversely of the bench. The bar 21 acts as a support for section 7 when the latter is in normal position and as a retainer for such section when it is adjusted from normal.

Secured to the lower face of top section 6 in proximity to the rear end of section 7 is a

pair of oppositely disposed anchoring pieces 22 which laterally project from section 6 and extend under the sides of section 5. Journalled in the side walls 2, 3 as well as extending from the latter is a winding shaft 23 upon which winds a pair of cables 24 for lowering and elevating section 6. When section 6 is lowered it and section 7 are angularly adjusted relative to each other and to section 5.

10 When section 6 is elevated by the cables such section and section 7 are restored to normal position, that is flush with section 5, and the latter is provided at each side with a slot 25 for the passage of a cable. Supported by the

15 section 5 and arranged over the slots 25 are pulleys 26 over which travel the cables 24 and each of the latter move upwardly and downwardly at each end of a slot. The anchoring pieces 22 extend to a point below the rear ends of the slots and have the upper ends of the cables fixed thereto.

Carried by the shaft 23 at one end thereof is a crank handle 27 and a ratchet wheel 28. Fixed to the wall 3 is a spring controlled,

25 pivoted pawl 29 engageable with the ratchet wheel 28 for locking shaft 23 from movement for the purpose of maintaining the sections 6, 7 in the position to which they have been moved.

30 Arranged within the body part and extending at a forward inclination from its bottom to its upper end with respect to said body part is a flared bowl 29, having its upper end arranged below and disposed in the path of the top section 6 when the latter is adjusted at an inclination with respect to top section 5. The bowl 29 at its top is formed therein with a downwardly opening channel 30 for the reception of water for the purpose of

40 flushing. A flushing water conducting pipe is indicated at 31, is secured to bowl 29, as at 32 and opens into channel 30. The pipe 31 extends through the front end wall 1 of the body part. The lower end of bowl 29 is open

45 and communicates with a soil pipe 33 which extends through side wall 4. The soil pipe 33 at its inner end is formed with an upstanding flanged portion 34 disposed at a forward inclination from bottom to top and to which

50 is secured the lower end of bowl 29 and such portion 34 supports and maintains bowl 29 at the inclination shown.

When the sections 6 and 7 are adjusted for supporting the patient, to be treated in the

55 desired position, the section 6 opposes the upper end of the bowl 29 and annulus 18 extends into the upper end of the bowl, and by this arrangement provision is had for carrying off of all ejected fecal matter when the colon

60 is evacuated.

What I claim is:—

1. A bench for the purpose set forth comprising, a top formed of a stationary and a pair of shiftable sections capable of being

65 angularly adjusted relatively to each other

and to the stationary section, said pair of adjustable sections being hinged together and one being hinged to the stationary section, said shiftable sections being arranged within the latter, one of said shiftable sections having an opening and providing a seat, the other being of greater length than the former and providing a back rest, an annulus secured to the wall of and depending below said opening, and a permanently inclined open top fecal carrying off means arranged below and in the path of the seat forming section on the angular adjustment of the latter to receive said annulus.

2. A bench for the purpose set forth comprising, a top formed of a stationary and a pair of shiftable sections capable of being angularly adjusted relatively to each other and to the stationary section, said pair of adjustable sections being hinged together and one being hinged to the stationary section, said shiftable sections being arranged within the latter, one of said shiftable sections having an opening and providing a seat, the other being of greater length than the former and providing a back rest, an annulus secured to the wall of and depending below said opening, a permanently inclined open top fecal carrying off means arranged below and in the path of the seat forming section on the angular adjustment of the latter to receive said annulus, and means for adjusting said shiftable sections to and from angular position and for latching them from movement in non-adjusted and adjusted positions.

3. A bench for the purpose set forth comprising, a top formed of a stationary and a pair of shiftable sections capable of being angularly adjusted relatively to each other and to the stationary section, said pair of adjustable sections being hinged together and one being hinged to the stationary section, said shiftable sections being arranged within the latter, one of said shiftable sections having an opening and providing a seat, the other being of greater length than the former and providing a back rest, an annulus secured to the wall of and depending below said opening, a permanently inclined open top fecal carrying off means arranged below and in the path of the seat forming section on the angular adjustment of the latter to receive said annulus, and a combined support and retainer for that shiftable section providing a back rest.

4. A bench for the purpose set forth comprising, a top formed of a stationary and a pair of shiftable sections capable of being angularly adjusted relatively to each other and to the stationary section, said pair of adjustable sections being hinged together and one being hinged to the stationary section, said shiftable sections being arranged within the latter, one of said shiftable sections having an opening and providing a

seat, the other being of greater length than the former and providing a back rest, an annulus secured to the wall of and depending below said opening, a permanently inclined open top fecal carrying off means arranged below and in the path of the seat forming section on the angular adjustment of the latter to receive said annulus, means for adjusting said shiftable sections to and from angular position and for latching them from movement in non-adjusted and adjusted positions, and a combined support and retainer for that shiftable section providing a back rest.

15 5. A bench for the purpose set forth comprising, a top formed of a stationary and a pair of shiftable sections, said stationary section having a lengthwise cutout open at its outer end, said shiftable sections arranged  
20 within said cutout, one of said shiftable sections hinged at its rear end to the other shiftable section, the said other shiftable section hinged at its rear to the closed inner end of said cutout, that shiftable section hinged at  
25 its rear to the closed end of the cutout having an opening and constituting a seat and capable of being shifted at a downward inclination with respect to the closed end of the cutout, the other shiftable section providing a  
30 back rest and capable of being shifted simultaneously with the shifting of the other shiftable section at an upward inclination with respect to the latter, a fecal matter carrying off means arranged below and coacting with  
35 said seat section, and means common to said shiftable sections for shifting them to and from inclined positions.

6. A bench for the purpose set forth comprising, a top formed of a stationary and a  
40 pair of shiftable sections, said stationary section having a lengthwise cutout open at its outer end, said shiftable sections arranged within said cutout, one of said shiftable sections hinged at its rear end to the other shiftable  
45 section, the said other shiftable section hinged at its rear to the closed inner end of said cutout, that shiftable section hinged at its rear to the closed end of the cutout having an opening and constituting a seat and capable  
50 of being shifted at a downward inclination with respect to the closed end of the cutout, the other shiftable section providing a back rest and capable of being shifted simultaneously with the shifting of the other shiftable  
55 section at an upward inclination with respect to the latter, a fecal matter carrying off means arranged below and coacting with said section, means common to said shiftable sections for shifting them to and from inclined positions, and a combined support and  
60 retaining means for that section constituting a back rest.

In testimony whereof, I affix my signature hereto.

HARRY F. GLEIM.