J. J. BUNNEMEYER.

INVALID BED.

APPLICATION FILED OCT. 31, 1912.

1,070,010.

Patented Aug. 12, 1913.

Fig. 1.

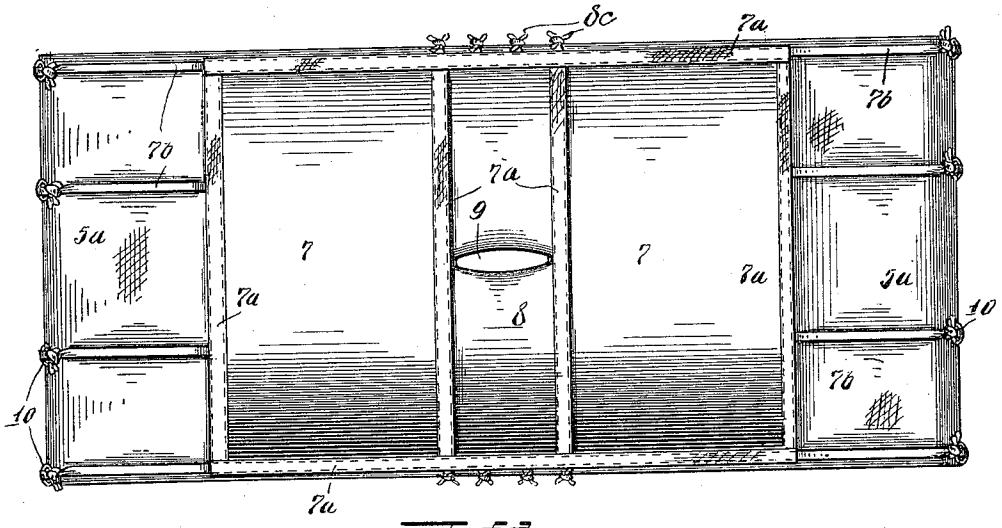



Fig. 2.

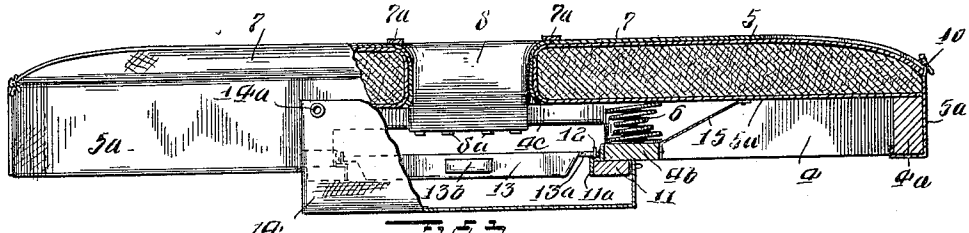
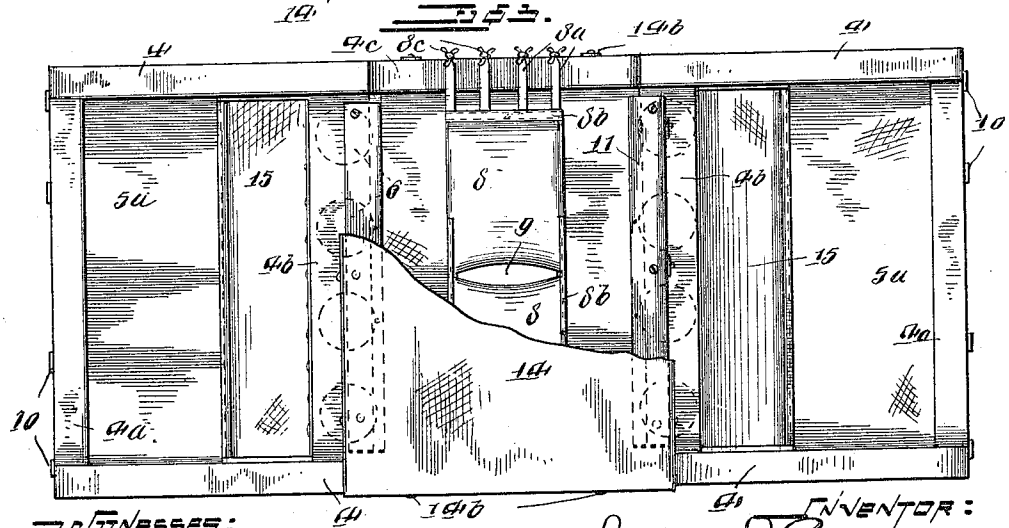



Fig. 3.




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# UNITED STATES PATENT OFFICE.

JULIUS J. BUNNEMEYER, OF CHICAGO, ILLINOIS.

## INVALID-BED.

1,070,010. Specification of Letters Patent. Patented Aug. 12, 1913.

Application filed October 31, 1912. Serial No. 728,776.

*To all whom it may concern:*

Be it known that I, JULIUS J. BUNNEMEYER, a subject of the Queen of the Netherlands, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Invalid-Beds, of which the following is a specification.

This invention relates to improvements in beds or mattresses especially adapted for use by invalids or bed-ridden persons for whom it is desirable or necessary to provide convenient and sanitary means for draining or conducting away human excretions or discharges, without disturbing or moving the patient.

The especial objects of the improvements embodied herein are, to provide a suitably upholstered mattress of the usual general shape, dimensions and construction, with waterproof means for protecting the mattress cover, said means being detachable for the purpose of cleansing and renewal; to provide a support for a vessel whereby it will be held in proper position to receive the discharges which reach it through an opening in the mattress, and to provide a readily detachable closure which will serve to protect the occupant of the bed from drafts which would otherwise come up through the opening in the mattress, and which will also serve to conceal the vessel from view and confine the odors arising from the discharges, until the vessel can be removed.

In the accompanying drawing, I have illustrated my invention in the following views:—

Figure 1 is a top plan view of a mattress embodying my improvements; Fig. 2 is a view partly in side elevation, and partly in longitudinal section of my improved mattress, and Fig. 3 is a bottom plan view of my improved mattress with a portion of the closure member removed.

Referring to the details of the drawing, 4 represents a rectangular wood mattress frame having the usual end pieces $4^a$, and cross bars $4^b$, the latter furnishing supports for the required number of coil springs 6 on which, with the frame, the mattress 5, rests.

$5^a$ represents the mattress cover or tick, which is attached in any approved manner, and may be tufted or not as desired.

At their mid-lengths, the side frame members are cut away to provide openings $4^c$.

7, 7, represent sheets of rubber fabric of suitably thin texture, and of sufficient area to cover the major portions of the mattress top surface. These sheets or sections 7 are bound and reinforced on their margins by cloth fabric tapes $7^a$ which are stitched thereto so as to lie flat. The end tapes $7^a$ have tie-bands or ribbons $7^b$ stitched thereto, and extending to the ends of the mattress where they are detachably tied to rings or loops 10 connected with the mattress.

8, 8, represent sections of rubber cloth like the sections 7, 7, but smaller, arranged between the latter, and adapted to cover the middle portion of the mattress top surface. Some of the tapes $7^a$ connect the adjacent edges of the sections, 7 and 8, and other of said tapes are stitched to the outer ends of the sections 8, 8. The inner end portions of the sections, 8, 8, are drawn downwardly through an oval or elliptical shaped opening 9, which extends vertically through the mattress 5 at about its center, are then drawn under the mattress and the side members of the frame 4, and are connected by tie-bands or ribbons $8^a$ with rings or loops $8^c$ which are stitched to the tape $7^a$ at the outer ends of the sections, thus permitting the rubber fabric to be drawn taut at the margins of the opening 9, and to be so maintained until it becomes desirable to remove the sheet made up of the connected sections 7, 8, the marginal tapes $7^a$, $8^b$, and the bands, $7^b$ and $8^a$.

11, 11, represent wood cleats which are secured to the underside of the slats or cross-frame members $4^b$, with their edges projecting to form a flange as shown in Fig. 2. The projecting portion of the cleats is preferably covered by a strip of thin metal $11^a$, to provide a smooth slideway for the vessel or pan 13 which is formed with end flanges $13^a$ adapted to rest upon said metal covered slideway. To determine the proper position of the pan 13, I place pins or pegs 12 in suitable holes in the slideway, against which the pan flanges strike when it has been pushed into place. The pan is inserted through either of the openings $4^c$, handles $13^b$ on the ends of the pan facilitating its insertion and removal.

14 represents a bag of suitable material, made up in rectangular shape with closed bottom, sides and ends, and provided at its free margins with spring buttons or tubular clasps $14^a$, adapted to engage similar buttons

14[b] on the outer sides of the frame 4, and the outer edges of the cleats 11. Strips 15 of material similar to the bag fabric, are connected with the under side of the mattress and with the outer edges of the slats 4[b], said strips 15, with the bag, constituting an effective closure for the open places adjacent and below the opening 9. The strips 15 are preferably fixed in place, but the bag 14 may be entirely detached and removed, or, one side may be detached and collapsed to permit the removal and insertion of the pan 13.

It will be obvious that when the mattress is not required for invalid use, the cover 7, 8, may be removed and a pad such as is commonly used on mattresses, will cover the opening 9 and thus render the mattress entirely comfortable for ordinary use.

The openings 4[c] on opposite sides of the mattress, afford access to the pan from either side by unbuttoning the desired flap or side of the bag 14.

The use and advantages of my improved mattress are apparent.

Having thus described my invention what I claim as new, is:—

1. In an invalid bed, a frame, a mattress supported by said frame and having an opening therethrough, a vessel-supporting slideway arranged below said opening, a vessel removably supported on said slideway, a flexible closure detachably connected with said mattress frame and adapted to inclose said vessel, the slideway, and the portion of the mattress adjacent the under side of said opening.

2. In combination with a mattress having an opening therethrough, a vessel-supporting slideway arranged below said opening on said mattress, a closure detachably connected with said mattress and adapted to cover said slideway and the mattress adjacent to the lower side of said opening.

3. In combination with a mattress having an opening therethrough, a mattress frame having cut out portions in the sides thereof, vessel-supporting means on said mattress frame, and a bag detachably connected with said mattress frame and adapted to inclose said vessel supporting means and the lower side of the mattress adjacent said opening.

In testimony whereof I affix my signature in the presence of two witnesses.

JULIUS J. BUNNEMEYER.

Witnesses:

F. BENJAMIN,

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**Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."**