

No. 759,882.

PATENTED MAY 17, 1904.

J. HALL & H. A. PADDLEFORD.

INVALID BED.

APPLICATION FILED MAR. 25, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

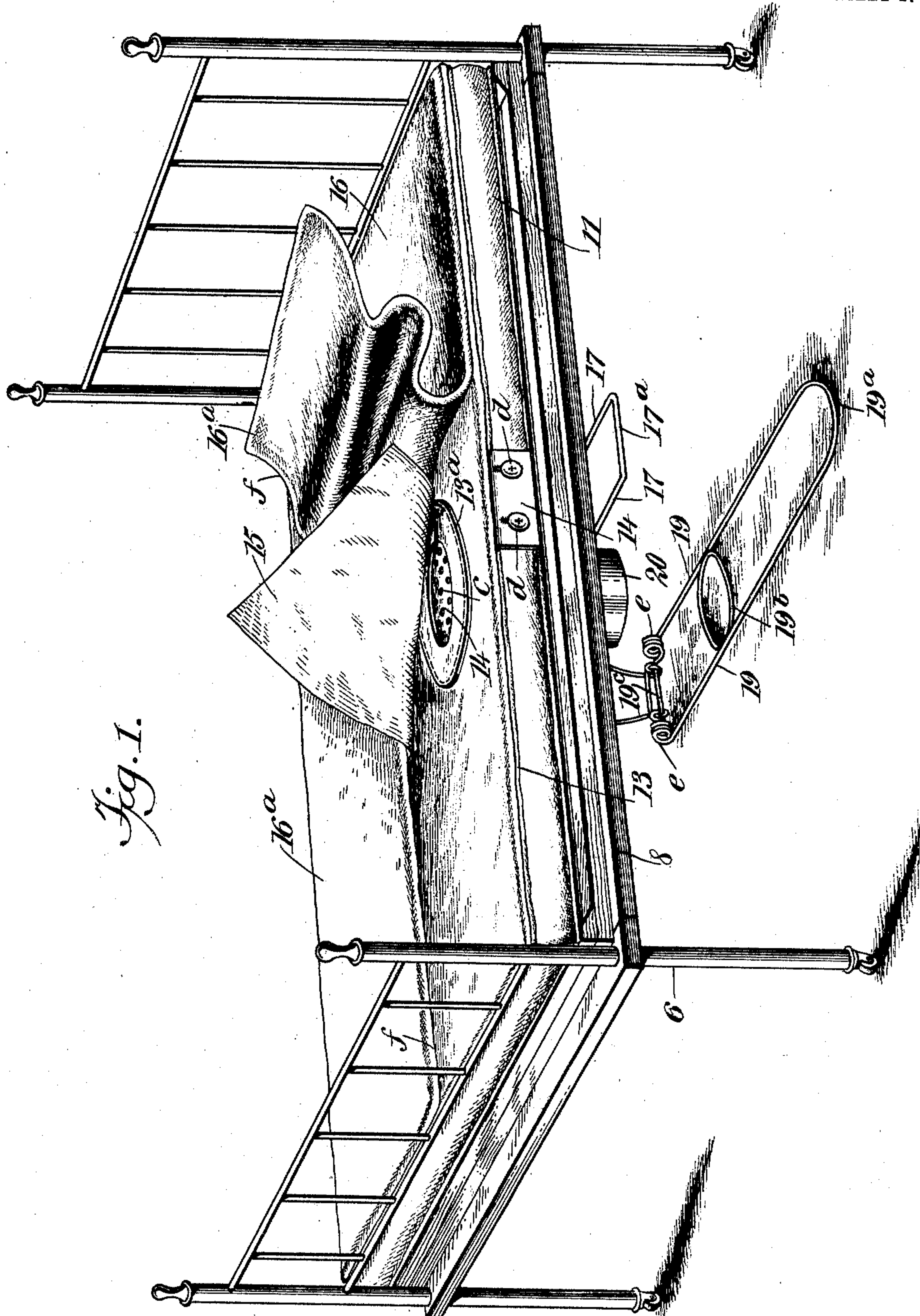


Fig. 1.

~~WITNESSES:~~

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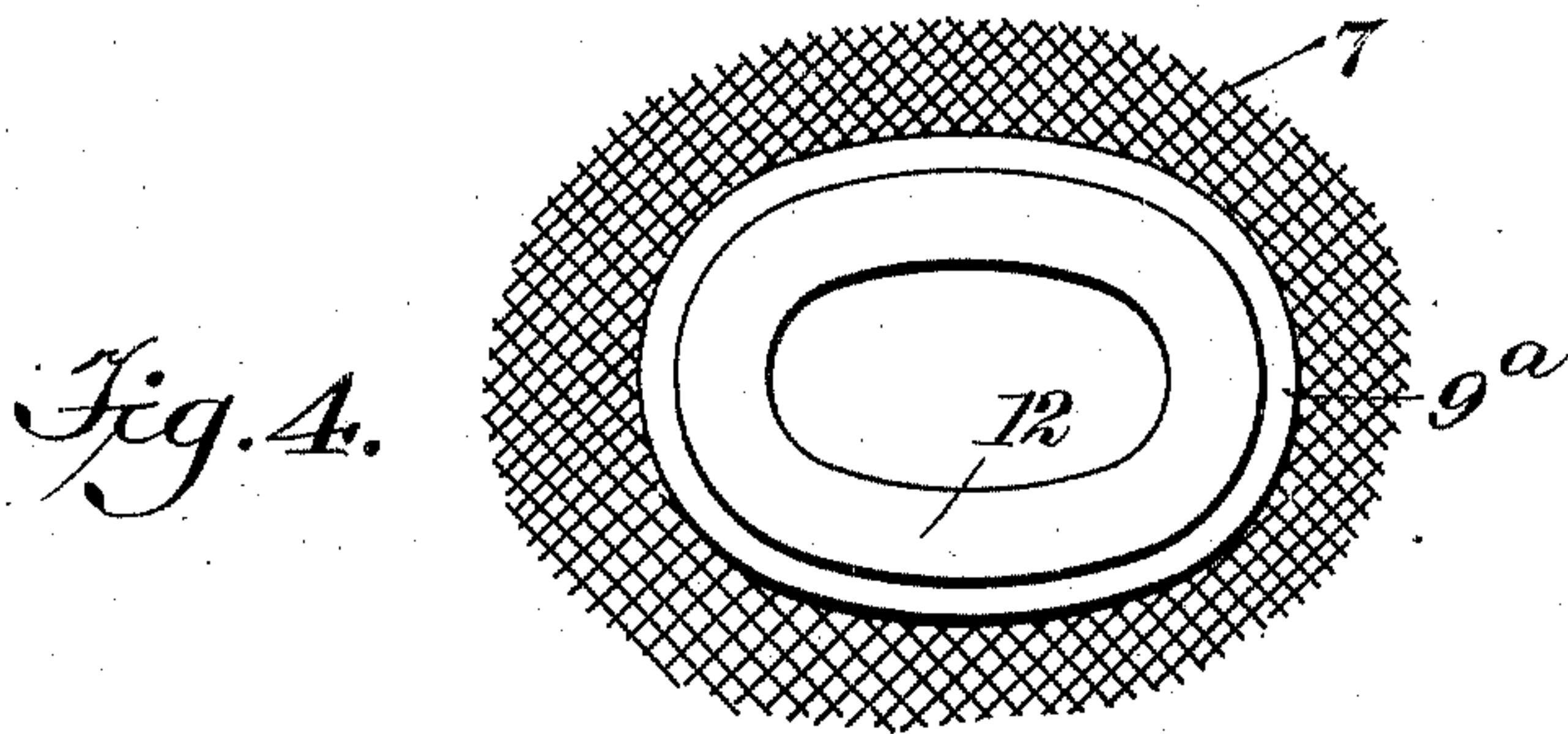
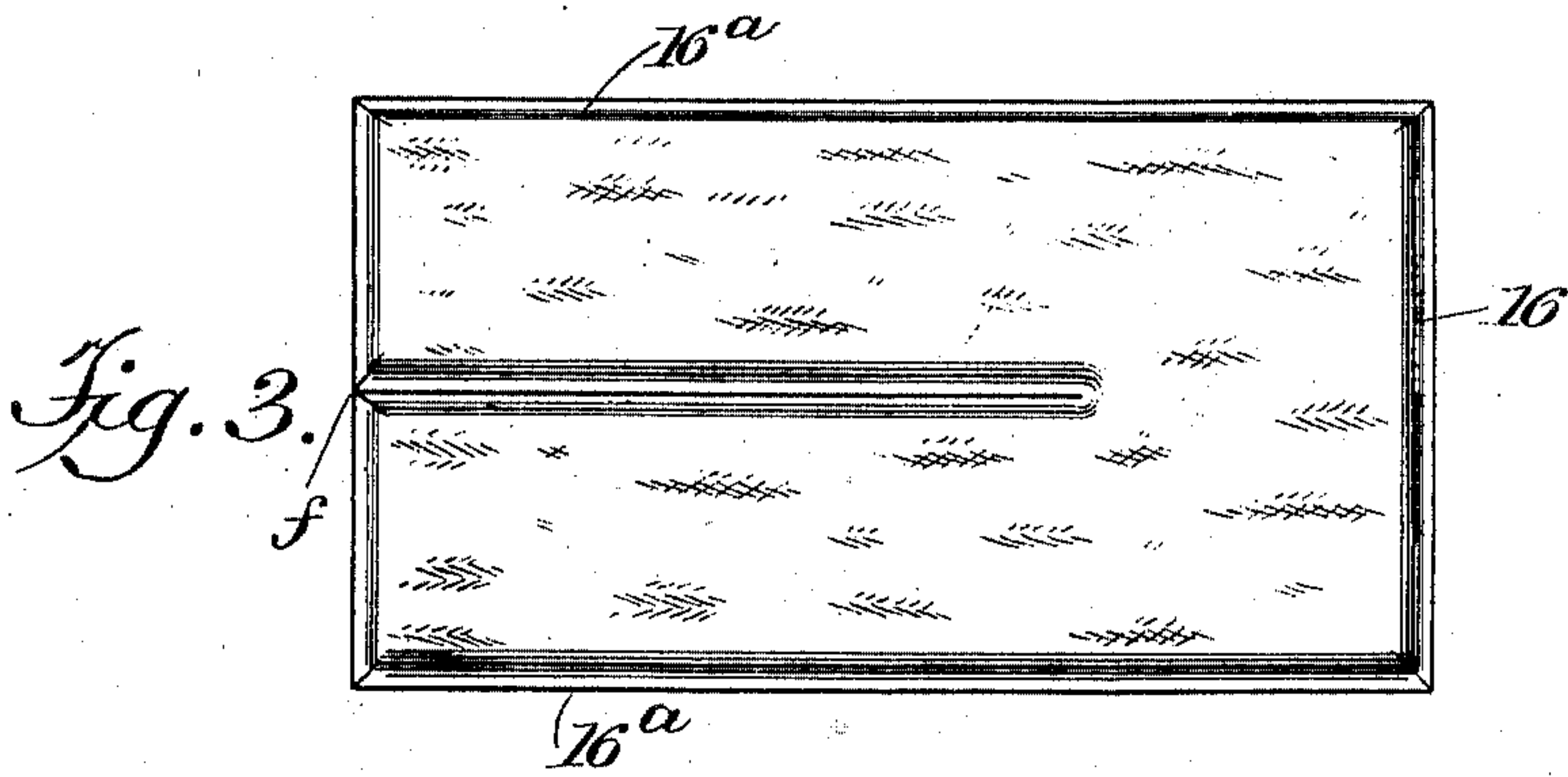
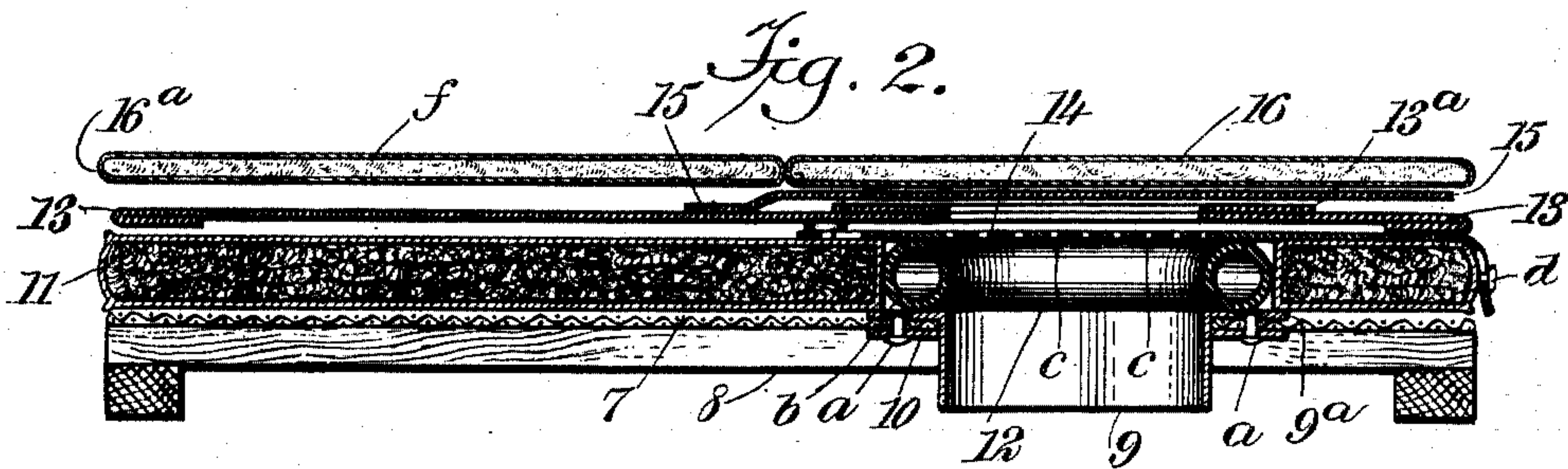
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APPLICATION FILED MAR. 26, 1903.

NO MODEL.

2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN HALL AND HATTIE AMELIA PADDLEFORD, OF NORTH MONROE,
NEW HAMPSHIRE.

INVALID-BED.

SPECIFICATION forming part of Letters Patent No. 759,882, dated May 17, 1904.

Application filed March 25, 1903. Serial No. 149,461. (No model.)

To all whom it may concern:

Be it known that we, JOHN HALL and HATTIE AMELIA PADDLEFORD, citizens of the United States, and residents of North Monroe, in the
5 county of Grafton and State of New Hampshire, have invented new and constructive details for an Invalid-Bed, of which the following is a full, clear, and exact description.

The object of our invention is to provide
10 novel details of construction for a bed of the character indicated which will permit an invalid occupying the bed to void excrement, liquid or solid, while in either a sitting or reclining posture through the bed-bottom and mat-
15 tress into a suitable receptacle held beneath the bed in a conveniently-removable manner, a further object being to enable a bedfast invalid to receive medical treatment for diseases of the womb and uterus, such as the applica-
20 tion of douches, and also to afford means for bathing the feet and lower limbs without exposure of other portions of the body.

The invention consists in the novel construction and combination of parts, as is hereinafter
25 described, and defined in the appended 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.

30 Figure 1 is a perspective view of a bedstead, a mattress thereon, covers on the mattress, and features of the invention applied upon the bed, the mattress, and covers. Fig. 2 is a longitudinal sectional view of a woven-wire bed-
35 bottom and a mattress, also of a bed-covering embodying features of the invention. Fig. 3 is a reduced plan view of a bed-covering that embodies a detail of the improvement. Fig. 4 is a fragmentary plan view of a wire-woven
40 bed-bottom and of a novel constructive detail combined therewith.

The bedstead 6 may be of any preferred style, a metal bedstead being shown in Fig. 1 as a support for the wire-woven spring-bot-
45 tom 7, that, as usual, is stretched upon and secured at its edges to a rectangular frame 8, that seats on the side and end rails of the bedstead,

whereby the bottom 7 is disposed horizontally in the ordinary way. At a suitable point, which may be near the center of the bed-bot- 50
tom, or, as shown in Fig. 2, be near the upper end of said bed-bottom, a preferably oval aperture is formed in the woven material 7, said aperture having its longest diameter disposed longitudinally of the bed-bottom and at a 55
proper distance from the sides of the border-frame 8.

There is a thimble 9 of sheet metal or other available material fitted into the aperture in the bed-bottom, and is held to depend there- 60
through by a circumferential plate-metal flange 9^a, which projects from the upper edge of the thimble and seats upon the wire-woven material 7. Upon the depending body of the
65 thimble 9 a plate-metal flange 10, similar to the border-flange 9^a, is mounted, and the flanges 9^a 10 are held clamped upon the bed-bottom material by rivets *a* or other means.

The mattress 11 for the bed should have area and form sufficient to adapt it to fully cover 70
the wire-woven bed-bottom 7, and at a suitable point in the mattress an opening *b* is formed similar in defining contour with that of the outer edge of the border-flange 9^a and is essentially equal in size therewith, as is in- 75
dicated in Fig. 2. In the opening *b* an inflatable tubular ring-like cushion 12 is introduced and seats upon the border-flange 9^a, the inner diameter of the cushion being preferably equal with that of the opening through the thimble 9. 80

Upon the mattress 11 a waterproof sheet-like covering 13, of thin fabric, such as gum-cloth or oil-cloth, is spread, said cover having an opening in it that will be positioned above the cushion 12 when said cover is in proper 85
position on the mattress, the opening being preferably reinforced by a washer or ring 13^a of like material with the covering 13.

A flap 14, of gum-cloth or other liquid-tight fabric, is secured by one edge upon the under 90
surface of the cover 13, and a portion of said flap above the ring-like cushion 12 is numerously perforated, as shown at *c*. The flap 14 may be and generally is held stretched over the

cushion 12 by buttons *d* on the mattress engaging slits in the flap at an adjacent edge of the latter.

Upon the upper side of the waterproof cover 13 another flap 15 is secured by one edge, so that it may be conveniently spread over the perforations in the flap 14, and as the upper flap is not perforated it will be seen that it virtually becomes a part of the waterproof cover 13, and if covered by sheets or other bed furnishings will adapt the bed for ordinary use.

Preferably there is a down or cotton padded or filled spread 16, usually termed a "comfortable," provided as a bedspread, to be placed directly upon the waterproof cover 13 and upper flap 15 and to enable access to be had to the flap 15 for its displacement from over the perforated flap 14, when this is necessary, the comfortable is slitted from the normal lower edge toward the top edge, this slit, that is indicated at *f* in Fig. 3, being preferably hemmed at its edge and extends such a length as will permit of uncovering the perforated flap 14 by folding one of the sections 16^a of the comfortable thus provided upwardly, so as to dispose it upon the upper portion of the same, the occupant of the bed at such a time moving toward the opposite side of the bed to permit an attendant to arrange the foldable section of the spread 16, as described.

The improved features of construction for appliances to a bed that have been described have a wide range for advantageous service, as the improved bed will serve effectively as a gynecological couch, being especially useful in obstetrical cases or in the treatment of diseases of the womb or urinary organ requiring the application of liquid medicaments.

When an invalid occupying the bed has sufficient strength to assume a sitting posture, but cannot with safety be removed therefrom, the covering 16 may be adjusted and the flaps 14 and 15 be removed from over the ring-like cushion 12, so that the latter may be used as a seat by the patient to permit evacuation of excrement in a comfortable manner; it being understood that a proper receptacle is supported below the cushion in engagement with the thimble 9, a restoration of the flaps and comfortable 16 to normal adjustment rendering the bed available for repose of the patient in a recumbent position.

When the occupant of the bed is suffering from disease of the bowels or urinary organ that renders the person unable to control desire for evacuations, the patient may then lie upon the waterproof cover 13, with the flap 14 secured in place over the cushion-ring 12. This arrangement of the novel bed furniture will prevent soiling of the mattress, and liquid evacuation in cases of urinary incontinence, dysentery, or the like will pass down through the perforations *e* in the flap 14, that

will be dished over the cushion-ring 12 by the imposed weight of the posterior of the patient.

The feet and lower limbs of an invalid occupant of the bed may be given a bath by removal of the covers 14 15 16, so as to afford convenient access to a vessel containing wash-water and supported upon the spring-pressed frame before described, and it will of course be understood that the bed furnishings may be replaced in normal positions for accommodation of the invalid when the bath has been completed; also, that the vessel containing wash-water or evacuations of the body may be readily removed from beneath the bed by depression of the upper frame, so as to release the vessel, and a subsequent outward sliding movement of the two connected frames that form the yielding support of the vessel or receptacle.

Slight changes may be made in the construction and arrangement of minor details of the invention without exceeding its legitimate scope. Hence we do not wish to limit the same to the precise construction of parts herein shown, but claim the right to vary therefrom within the intent of the claims.

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

1. The combination with a bed-bottom and mattress having registering openings, of a waterproof spread having an opening positioned above the opening in the mattress, said spread also having an upper and a lower lapping portion secured thereto near its center, and adapted to extend respectively over and under said opening, the lower lapping portion having slits at its free end to engage buttons on the mattress, and having its portion immediately underneath the opening in the spread perforated, the upper lapping portion being adapted to be spread over said opening when it is desired to entirely cover the same.

2. The combination with a supported bed-bottom having an aperture therein, a thimble pendent in the aperture, two flanges engaging the thimble and bed-bottom adapted to secure the thimble thereto, an apertured mattress on the bed-bottom its aperture being over the thimble, of a waterproof sheet-like cover on the mattress having an opening therein, a waterproof flap on the lower side of the waterproof cover, having perforations over the thimble, and a non-perforate waterproof flap on the upper side of the waterproof cover closing the aperture therein, said perforated flap extending beyond the opening in the mattress, and means for securing the free end of the flap, having perforations, to the mattress.

3. The combination with a bed-bottom and mattress having registering openings, of a waterproof spread having an opening positioned above the opening in the mattress, said spread

also having an upper and a lower lapping portion secured thereto at one side of said opening and adapted to extend respectively over and under the opening, the lower lapping portion being perforated immediately underneath the opening in the spread, the upper lapping portion being adapted to be spread over said opening when it is desired to entirely close the same.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN HALL.

HATTIE AMELIA PADDLEFORD.

Witnesses:

J. W. PEABODY,

JAMES G. PEABODY.