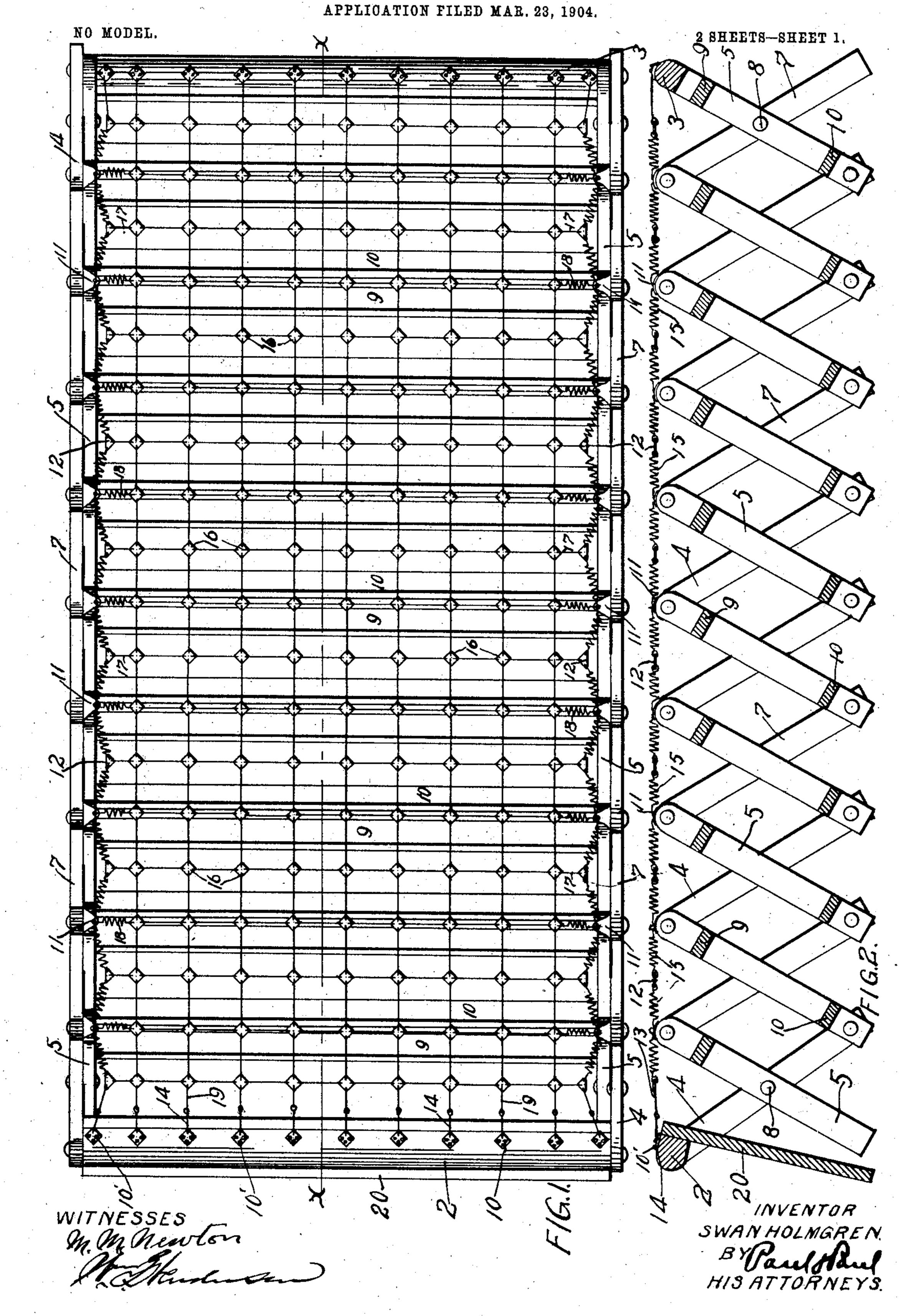
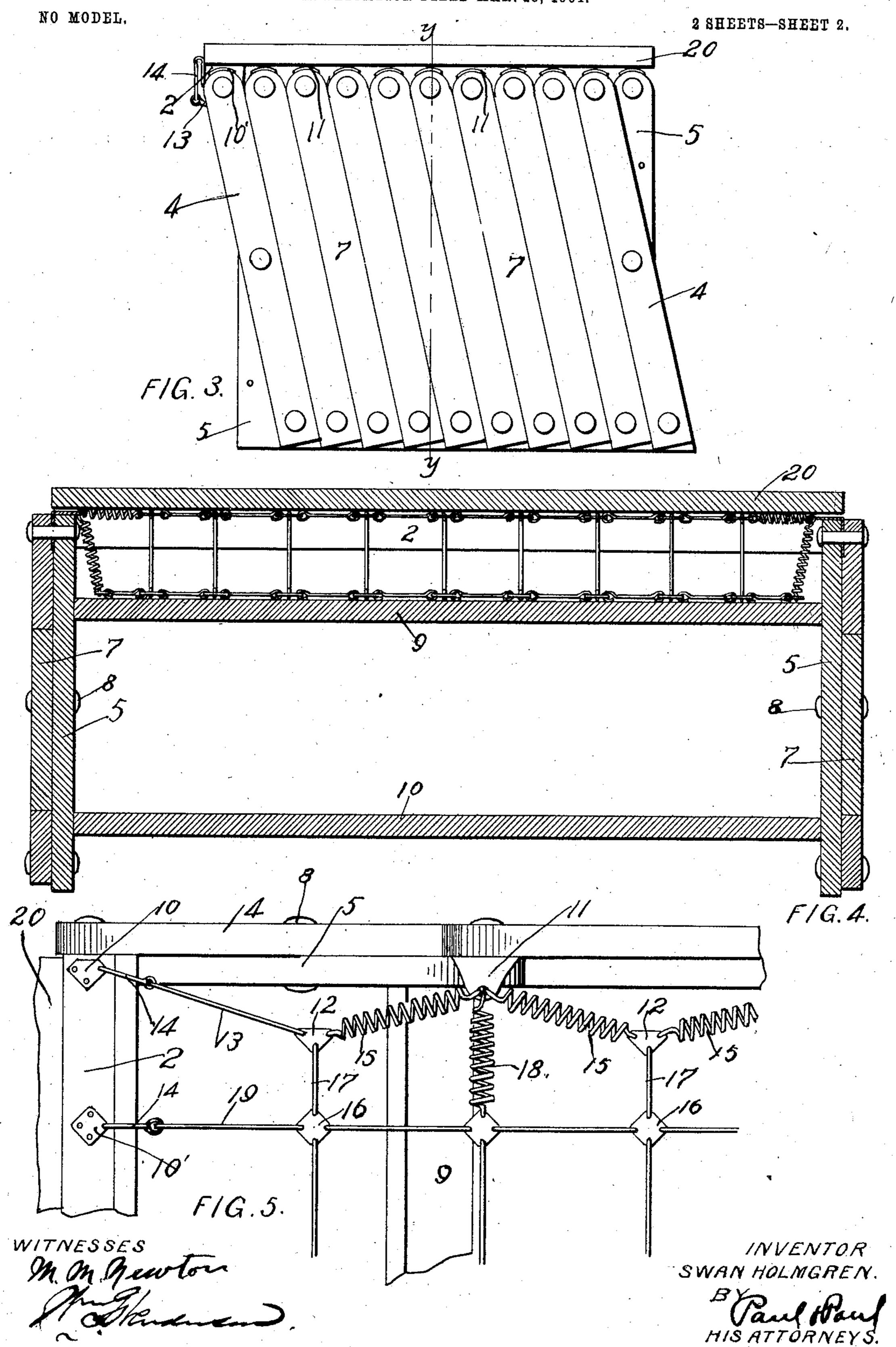
S. HOLMGREN. FOLDING BED.



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United States Patent Office.

SWAN HOLMGREN, OF ST. PAUL, MINNESOTA.

FOLDING BED.

SPECIFICATION forming part of Letters Patent No. 768,049, dated August 23, 1904.

Application filed March 23, 1904. Serial No. 199,870. (No model.)

To all whom it may concern:

Be it known that I, Swan Holmgren, of St. Paul, Ramsey county, Minnesota, have invented certain new and useful Improvements in Folding Beds, of which the following is a specification.

The object of my invention is to provide a bed which can be easily opened up and made ready for use and when not in use can be folded into a very compact form and placed in the corner of the room out of the way or utilized as a chair or other support.

A further object is to provide a folding bed having a receptacle for the clothes when not in use.

A further object is to provide a bed wherein all slack in the springs, due to the stretching of the wire, can be easily and quickly taken up.

The invention consists generally in various constructions and combinations, all as hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view of a folding bed embodying my invention. Fig. 2 is a longitudinal vertical section on the line x x of Fig. 1. Fig. 3 is a side elevation of the bed folded. Fig. 4 is a transverse vertical section on the line y y of Fig. 3. Fig. 5 is a detail view of the construction of the bed-springs and the manner of secur-

ing the same to the bed-rails.

In the drawings, 2 and 3 represent, respectively, the head and foot rails of the bed secured to the upper ends of bars 4 and 5, which at points intermediate to their ends are connected to similar bars 7 by pivot-pins 8. The lower ends of the bars 4 and 5 are pivotally connected to bars similar to the bars 7 and 40 running parallel therewith, and the upper ends of the bars 7 are connected to corresponding bars that are parallel with the bars 5.

This construction is carried out from one end of the bed to the other, one end of each bar being pivotally connected to the corresponding end of the contiguous bar, while its opposite end is pivotally connected to the corresponding end of the second bar. This construction allows the end bars and rails carried

thereby to be adjusted toward or from each 50 other and take up the slack of the springs. Cross-bars 9 and 10 at the top and bottom, respectively, of the side bars connect them from one side of the bed to the other and when the device is folded forms a receptacle 55 therein where the clothes may be placed when the bed is not in use. Near each end of the rail at the head of the bed I provide a clip 10', and at intervals along the side of the bed, secured to the bars thereof, I arrange clips 60 11. Rows of plates 12 are provided on each side of the bed, and the end plates in said rows are connected with the clips 10 on the adjacent rails by links 13 and hooks 14. These end plates, as well as those intermediate there- 65 to, are also connected with the clips 11 by coil-springs 15. Between the rows of plates 12 are parallel rows of similar plates 16, some arranged opposite the plates 12 and some opposite the clips 11 and connected, respec- 70 tively, therewith by links 17 and coil-springs 18. The plates 16 are connected with each other and with the end rails by links 19. This construction allows the bed to be folded into a compact form and also provides a yielding 75 comfortable support for the mattress. It is a simple but strong and durable form of spring and one that can be easily repaired.

When the bed is folded, the springs and connecting-links will assume the position 80 shown in Fig. 4, where they will not in any way interfere with the packing of the bed-clothes in the receptacle, being above the upper row of cross-slats, and will themselves be protected from injury.

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I prefer to provide a plate 20, secured at one edge to the hub-rail and adapted to be folded over above the springs when the device is closed up, as indicated in Fig. 3, to adapt it for use as a seat or other support.

I claim as my invention—

1. In a folding bed, the combination, with the end rails, of bars pivotally connected at their upper ends to said rails, similar bars pivotally connected near their middle to the 95 middle of said first-named bars, and a series of bars pivotally connecting said first and second named bars on the same side of the

bed, and a spring device connecting said end rails and said bars.

2. In a folding bed, the combination, with the end rails, of a series of bars provided on 5 each side of the bed pivotally connecting said rails, springs connected to said rails and bars, and cross bars or slats connecting said side bars and forming, when the bed is folded, a receptacle wherein clothes may be placed, for the purpose specified.

3. In a folding bed, the combination, with the end rails, of bars pivotally connecting the same, springs secured on said rails, and a plate carried by one plate and adapted to be

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folded over the top of the bed when it is 15 closed, for the purpose specified.

4. In a folding bed, the combination, with the end rails, of upright connections between them capable of being folded or extended to allow said rails to be moved together or sep- 20 arated, and springs mounted on said rails and connections.

In witness whereof I have hereunto set my hand this 17th day of March, 1904.

SWAN HOLMGREN.

In presence of— RICHARD PAUL, M. HAGERTY.

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