L. STERN.

FOLDING BED.

APPLICATION FILED MAR. 1, 1910.

956,219. **Patented Apr. 26, 1910.**

3 SHEETS—SHEET 1.

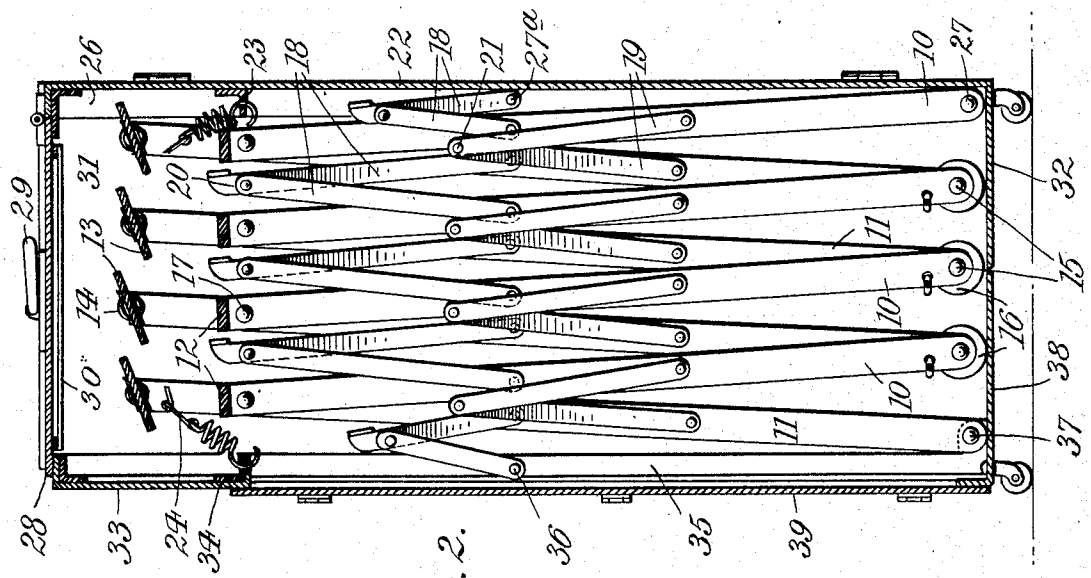

Fig. 2.

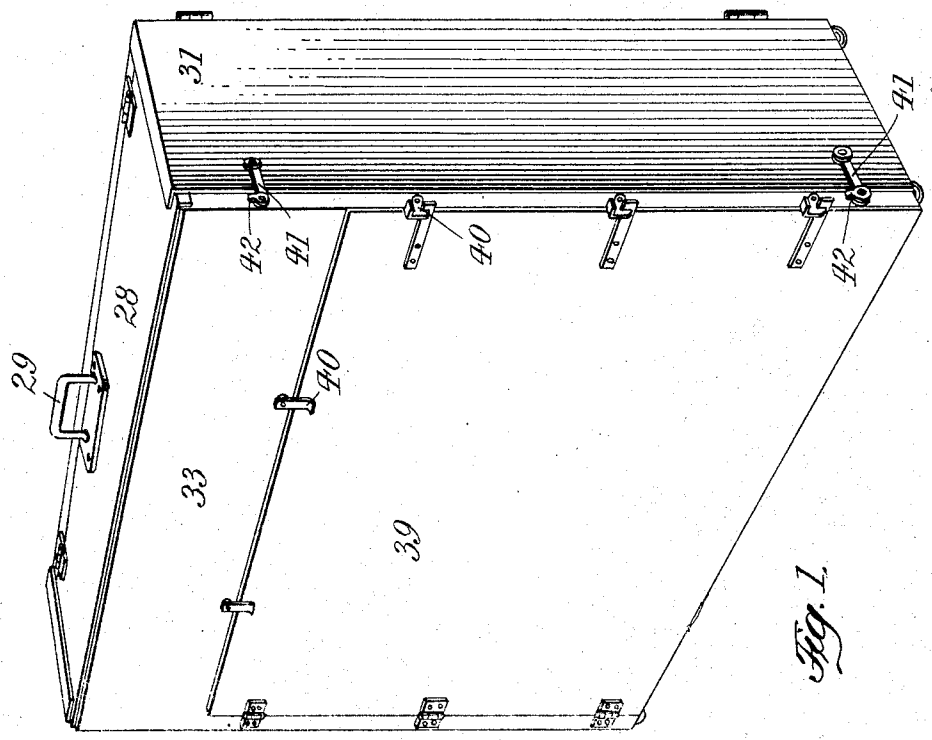

Fig. 1.

Witnesses:

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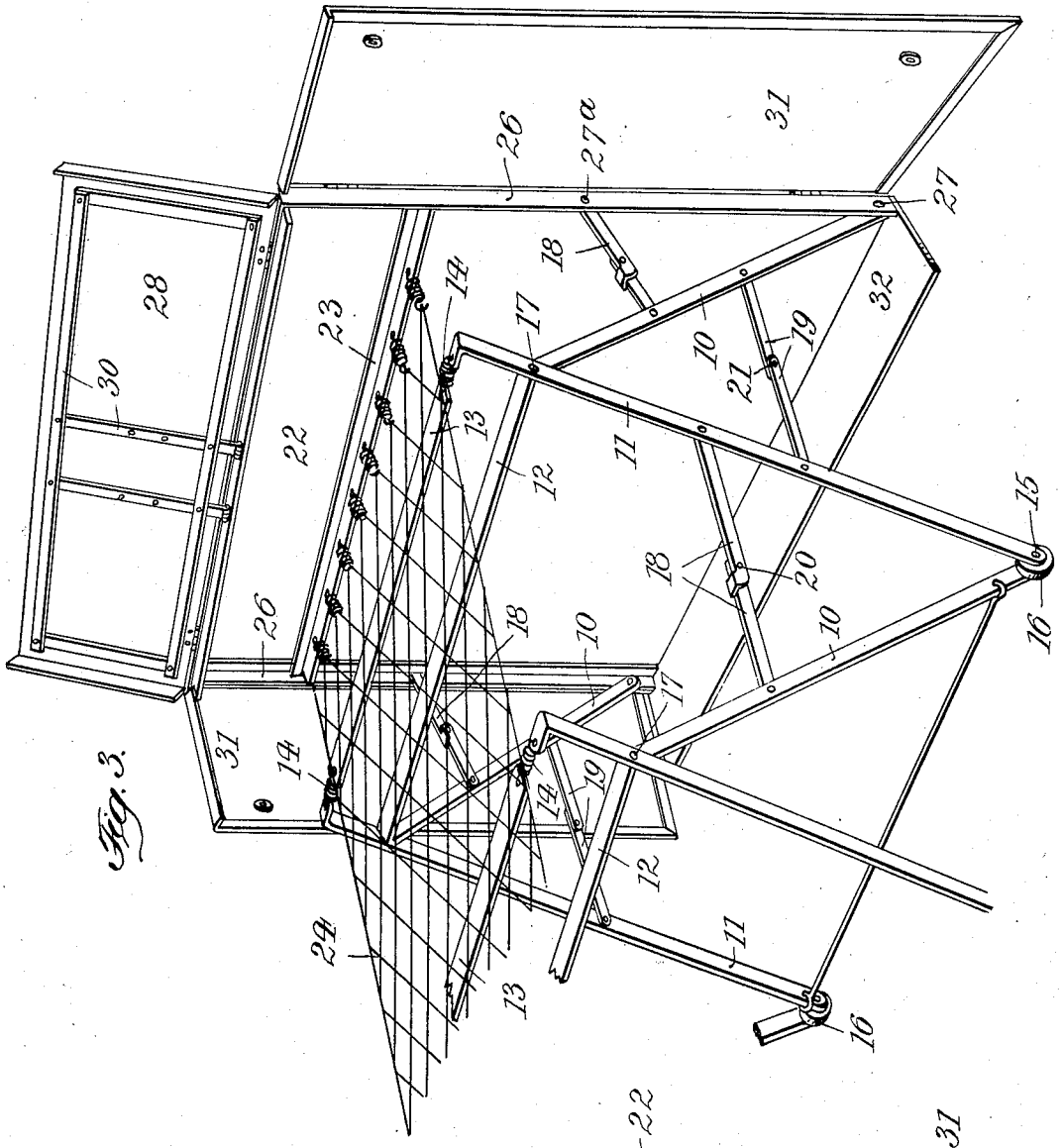

Fig. 3.

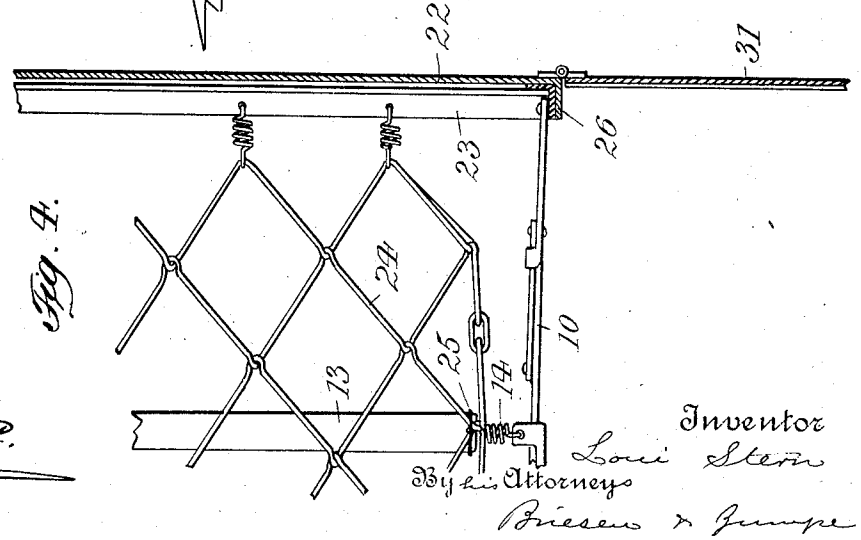

Fig. 4.

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3 SHEETS—SHEET 3.

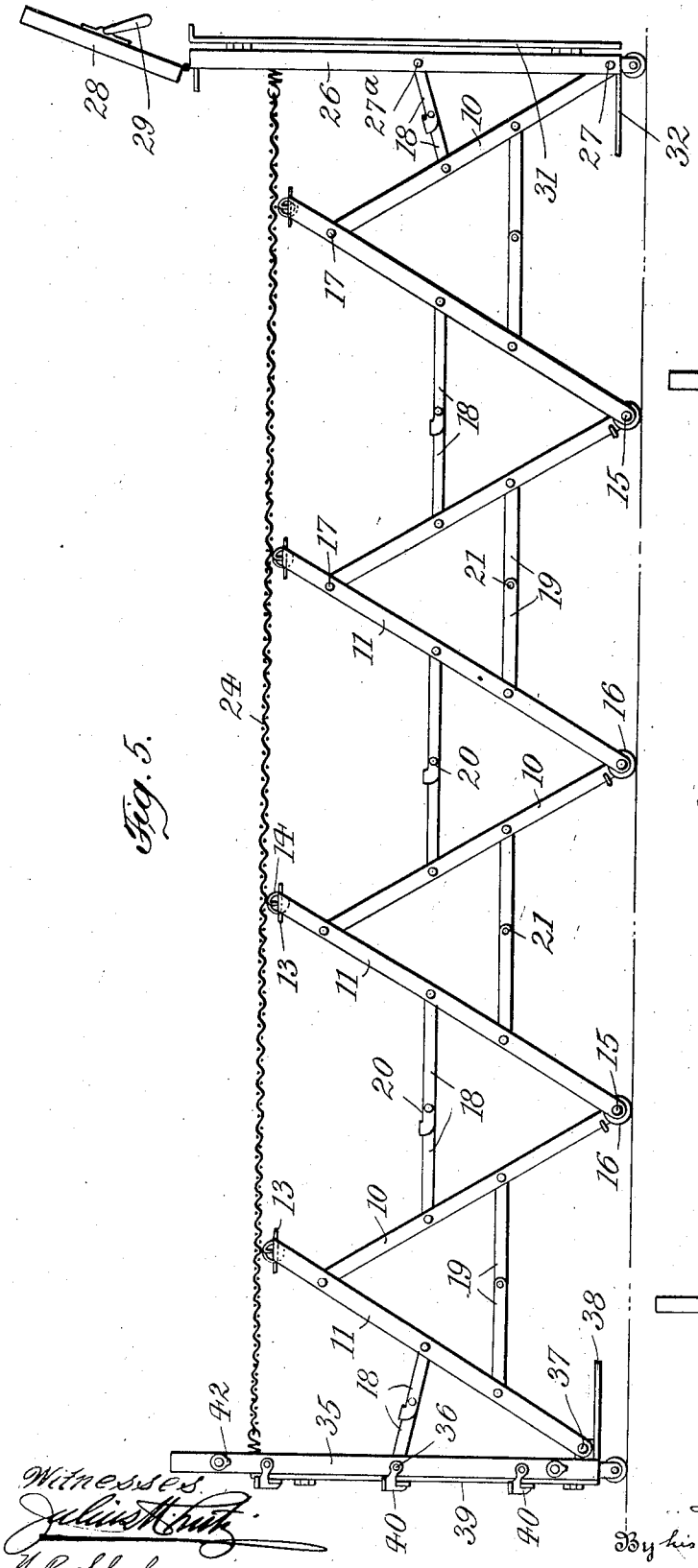

Fig. 5.

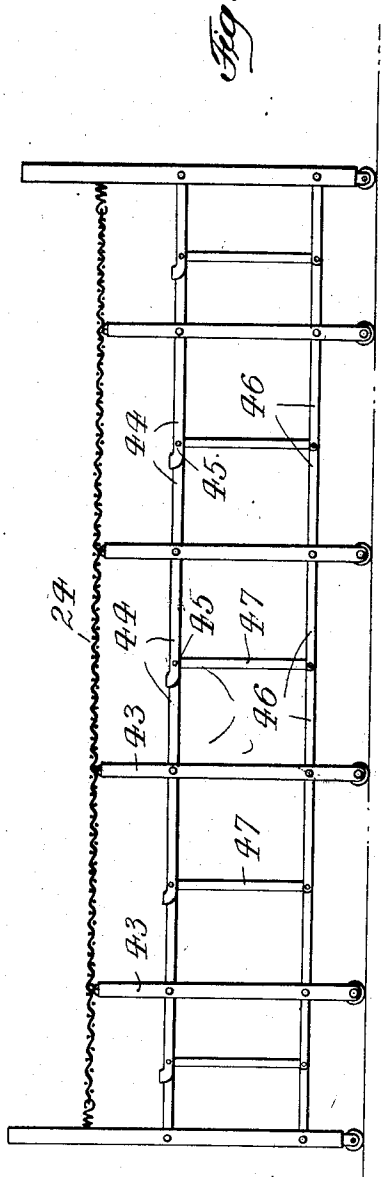

Fig. 6.

Witnesses.
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Inventor
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UNITED STATES PATENT OFFICE.

LOUI STERN, OF NEW YORK, N. Y.

FOLDING BED.

956,219. Specification of Letters Patent. Patented Apr. 26, 1910.

Application filed March 1, 1910. Serial No. 546,701.

To all whom it may concern:

Be it known that I, LOUI STERN, a citizen of Russia, residing at New York city, county and State of New York, have invented new and useful Improvements in Folding Beds, of which the following is a specification.

This invention relates to a folding bed of novel construction which may be opened and closed without imposing an objectionable burden upon the operator, and which, in its closed condition, is confined within a casing of limited size, which may be readily carried about. In this way the bed, when folded, occupies a minimum amount of space and may be readily stored away and transported.

In the accompanying drawings: Figure 1 is a perspective view of my improved folding bed, showing it closed; Fig. 2 a vertical transverse section of Fig. 1, with the bed bottom partly broken away; Fig. 3 a perspective view of the head of the bed; Fig. 4 a plan view of one corner of the spring frame, Fig. 5 a side elevation, Fig. 6 a similar view of a modification, with parts of the case omitted.

Briefly stated, the bed is composed of a series of pivotally connected sections expansible along the longitudinal axis of the bed and connected at their ends to a head-piece and foot-piece respectively, which collectively form a casing adapted to inclose the bed when folded. This casing, which is not much larger than the conventional dress suit case, is also adapted to accommodate the pillows, mattresses and other articles of bedding, so that all the parts that go to make up the bed are collected in a convenient, compact and portable form.

The body of the bed is composed of a series of alternating legs 10, 11, which are arranged at each side of the bed bottom and may be folded against each other, or unfolded. Legs 10 form the upright members of inverted U-shaped frames, the integral horizontal members 12 of which constitute braces for connecting each alined leg-pair. Legs 11 project slightly above legs 10 and also form the members of inverted U-shaped frames. The horizontal members 13 of these frames, however, are not integral with the legs, but are connected therewith by coiled springs 14 which serve to form resilient supports for the bed bottom. Each leg 10 is connected at its lower end to the lower end of the adjoining leg 11 by a pivot 15 which carries a caster 16. The upper end of each leg 10 is pivoted to the adjoining leg 11 at a point somewhat below the top thereof, as at 17. The result of this construction is that the resilient horizontal members 13 are located in a plane above the rigid members 12, so that, while the former will aid to comfortably support the sleeper, the latter will securely brace the structure without exerting an objectionable pressure upon the body.

In order to sustain the bed in its unfolded position, there are provided at each side thereof, two sets of alternating braces 18, 19, of which the former are located in a plane above the latter. Braces 18 connect legs 10, 11, above joints 15, and the two members thereof are joined by a stop hinge 20 which sustains the brace against sagging. Braces 19 connect legs 10, 11, below pivots 17, and the two members of these braces are connected by a pivot 21 that permits them to be freely folded in either direction.

It will be seen that by the construction described, the braces will maintain the bed in its expanded position and that the stop hinges lock the legs against collapsing under pressure. If it is desired to fold the bed, the members of braces 18 are swung upward on their hinges 20, when all the legs may be moved in parallelism with each other, (Fig. 2), by advancing the foot of the bed toward the head upon casters 16, in a direction parallel to the longitudinal axis of the bed.

The head-piece of the bed is composed essentially of the back, sides, lid, and of part of the bottom of a casing, preferably made of sheet metal. The back plate 22 is provided at some distance below its top with a horizontal rail 23, to which is connected one end of the foldable bed bottom 24, said bottom being also connected by cleats 25 to springs 14 or braces 13. Plate 22 is further provided with upright flanges 26 to which are fulcrumed, at 27, the flanking legs 10, and at 27^a, the outer brace-members 18. The lid 28 of the casing, which is hinged to the top of plate 22, is provided with a handle 29 and with a suitable reinforcing cleat 30. The sides 31 of the casing are hinged to plate 22 and when closed project somewhat beyond the forward end of bottom 32 which may be made integral with plate 22.

The foot-piece of the bed is composed essentially of the front and part of bottom of the casing, thus constituting a complement to the head-piece. The front plate 33 is

provided at some distance below its top with a horizontal rail 34 to which the end of bed bottom 24 is secured. It is also provided with upright flanges 35 to which are pivoted, at 36, the outer hinge-members 18, while the flanking legs 11 are shown to be pivoted at 37 to the bottom section 38 of the casing. Below rail 34, plate 33 is provided with a large opening adapted to be closed by a hinged door 39 which may be locked by suitable catches 40 and which permits access to the interior of the casing below bed bottom 24 when the bed is folded. By means of this door, a mattress may be readily introduced into the roomy space formed within the casing between legs 10, 11 and below the bed bottom, while pillows and other smaller articles of bedding may be introduced through lid 28 into the casing above such bottom. In this way the casing serves to store, not only the main section of the bed, but also the sleeping appurtenances. The casing is closed by means of catches 41 pivoted to the folding sides 31 and engaging keepers 42 formed on the flanges 35 of foot-plate 33.

With the construction described, the unfolding of the bed is accomplished by causing legs 10 and 11 to assume inclined positions in opposite directions. In the modification shown in Fig. 6, the legs 43 will maintain their vertical position, thus being always in parallelism. Here the legs 43, carrying the foldable bottom 24, are connected to each other by upper sets of braces 44 having stop hinges 45, and by lower sets of braces 46. Each upper brace is connected at its pivot to the pivot of the corresponding lower brace by an upright stay 47, by which construction the legs may be readily folded and unfolded.

I claim:

1. A folding bed comprising a first series of legs, a second series of legs, braces connecting the legs, a foldable bed bottom carried by the legs, and a sectional case, the members whereof are connected to the legs and to the bed bottom.

2. A folding bed comprising a first series of legs, a second series of legs, a first series of foldable connecting braces having stop hinges, a second series of foldable connecting braces, a foldable bed bottom carried by the legs, and a sectional case, the members whereof are connected to the legs and to the bed bottom.

3. A folding bed comprising a first series of inverted U-shaped frames having integral horizontal members, a second series of inverted U-shaped frames having spring-influenced horizontal members that project above the horizontal members of the first-named frames, a foldable bed bottom supported on the spring-influenced members, and a sectional case, the members whereof are connected to the frames and to the bed bottom.

4. A folding bed comprising a first series of inverted U-shaped frames having integral horizontal members, a second series of inverted U-shaped frames having spring-influenced horizontal members that project above the horizontal members of the first-named frames, a first series of foldable connecting braces having stop hinges, a second series of foldable connecting braces, and a sectional case, the members whereof are connected to the frames and to the bed bottom.

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Witnesses:
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