B. LARSON.

CONVERTIBLE COT OR CRADLE.

APPLICATION FILED MAR. 19, 1910.

1,017,769. Patented Feb. 20, 1912.

4 SHEETS—SHEET 1.

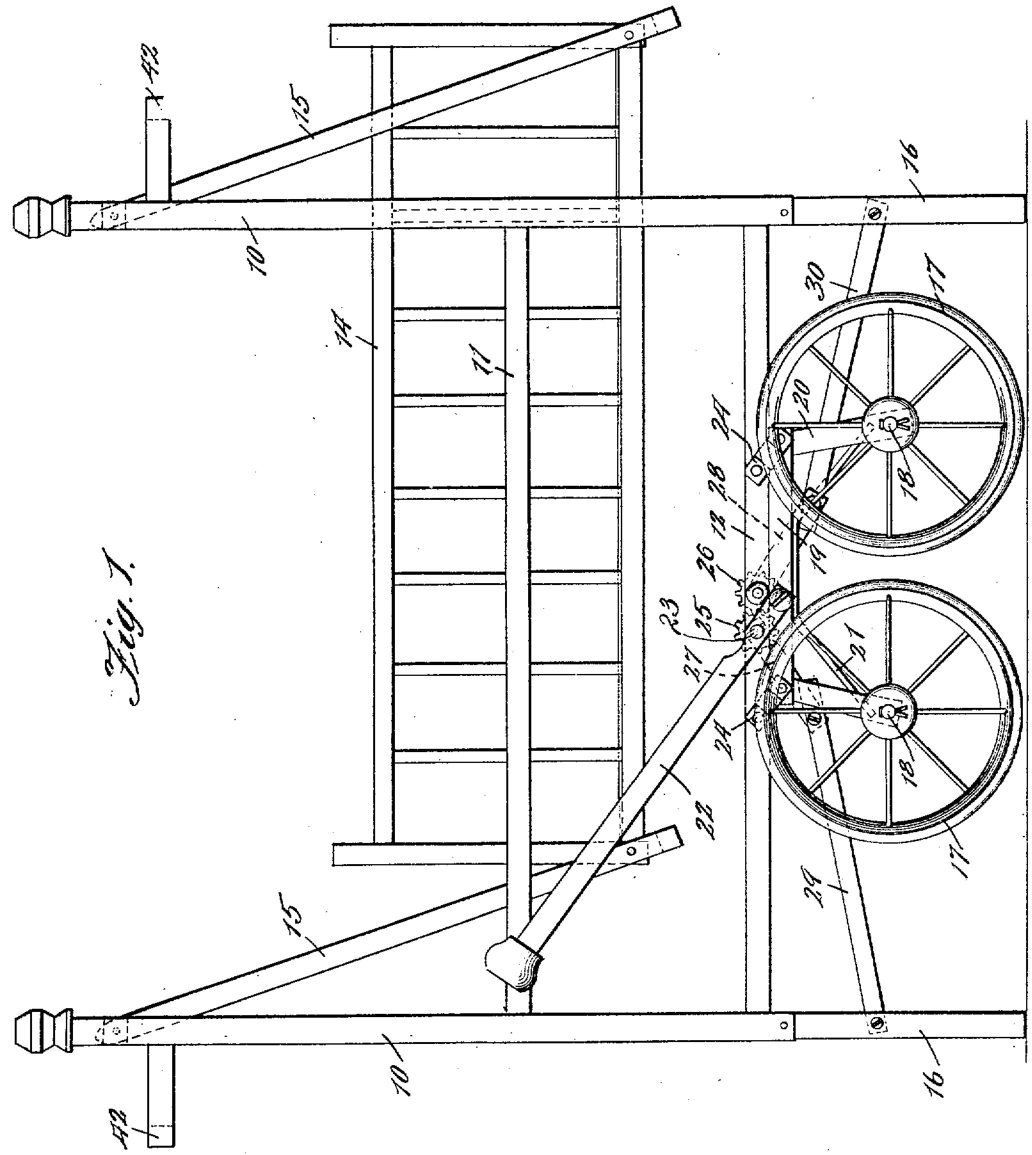

Fig. 1.

Witnesses:

[signature]

[signature]

Inventor:

Bengt Larson

By [signature]

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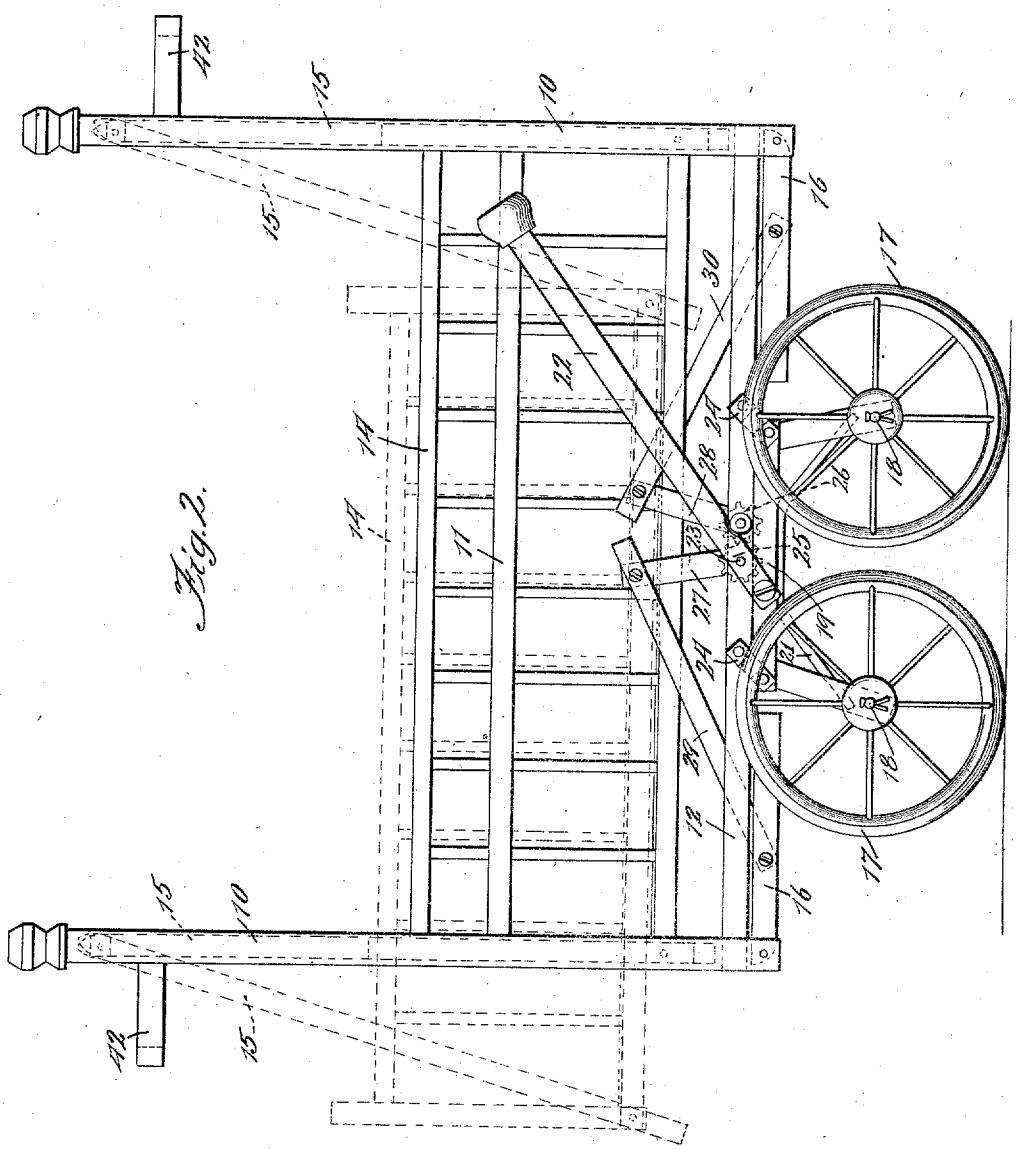

Fig. 2.

Witnesses:

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4 SHEETS—SHEET 3.

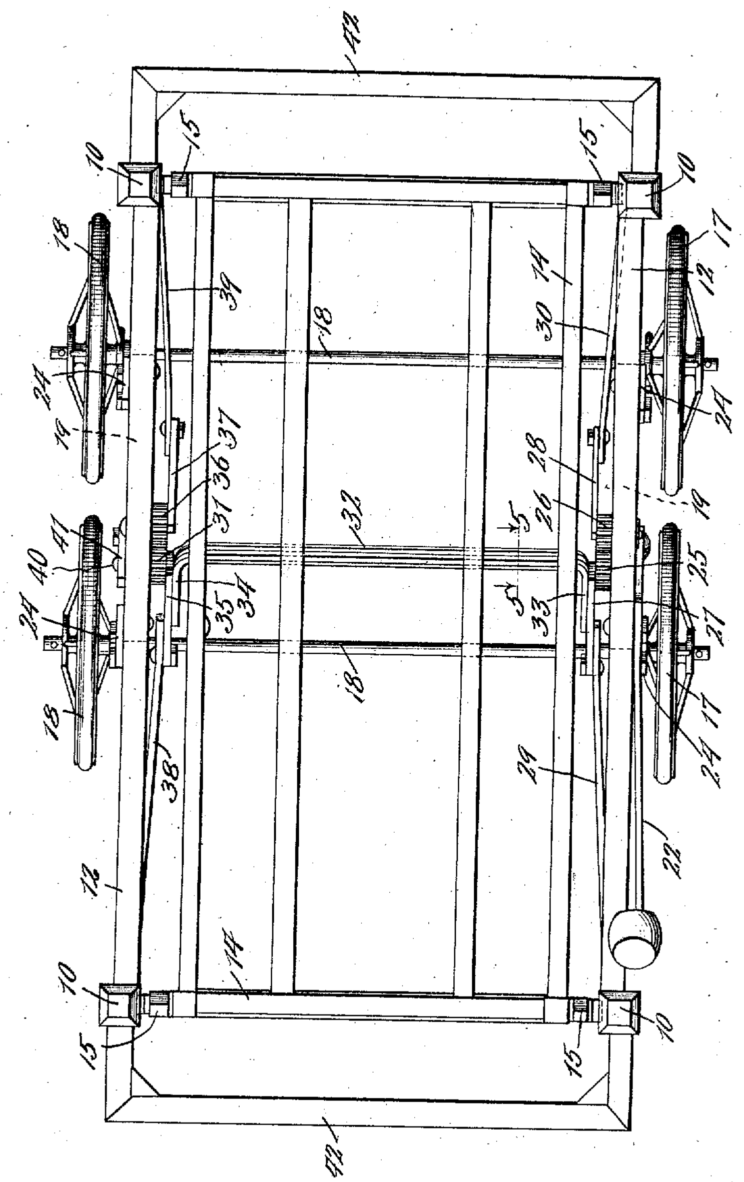

Fig. 3.

Witnesses:

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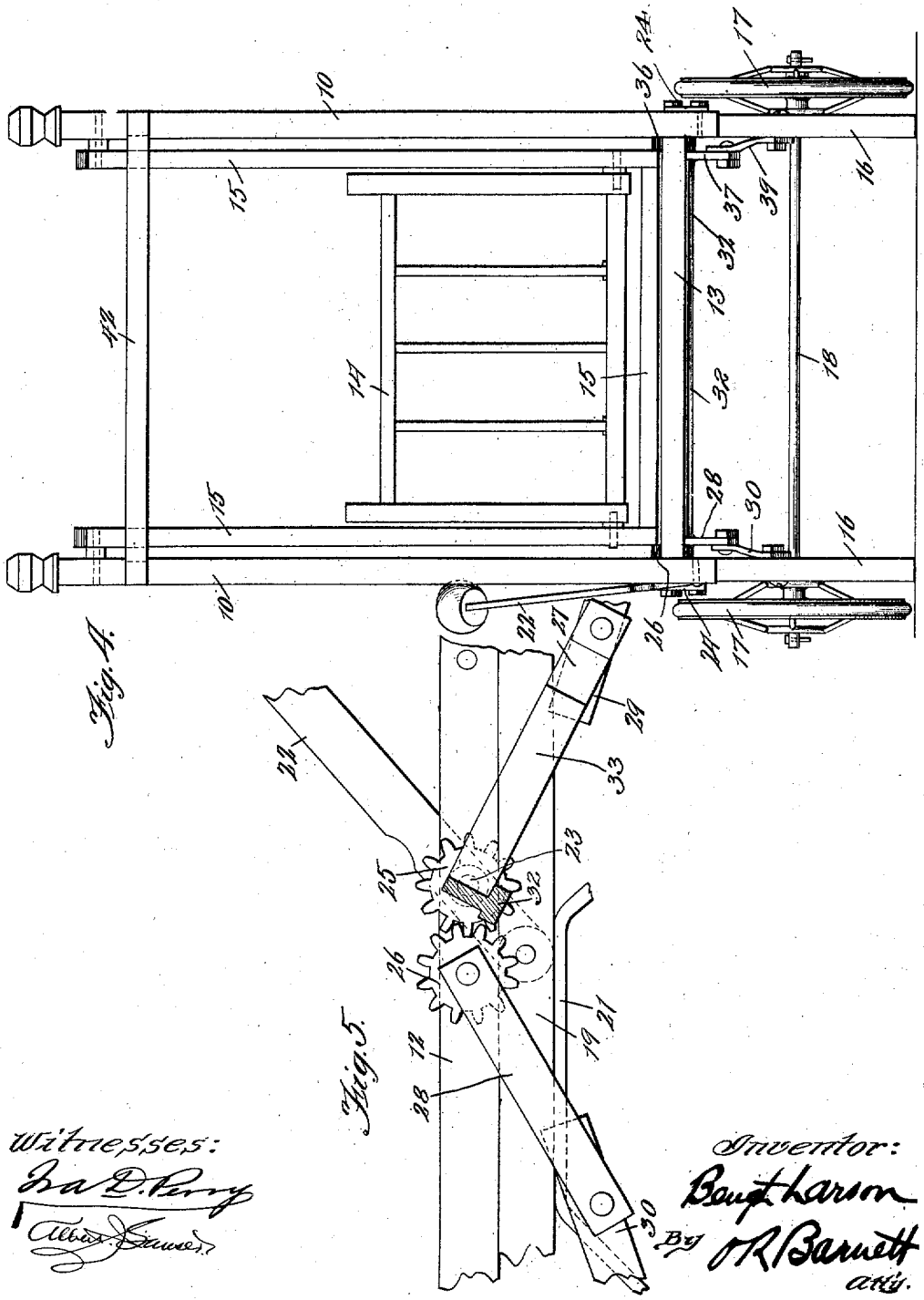

Fig. 4.

Fig. 5.

Witnesses:

Inventor:

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UNITED STATES PATENT OFFICE.

BENGT LARSON, OF CHICAGO, ILLINOIS.

CONVERTIBLE COT OR CRADLE.

1,017,769. Specification of Letters Patent. Patented Feb. 20, 1912.

Application filed March 19, 1910. Serial No. 550,411.

To all whom it may concern:

Be it known that I, BENGT LARSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Convertible Cots or Cradles, of which the following is a specification.

My invention relates to a cot, cradle, bed or the like, and the invention has for its object to provide an article of this sort with rigid supporting means and also with wheels or other rolling supporting means, either of which means of support for the cot, cradle, bed or the like may be used as desired, so that the article is convertible at will from a cot, cradle, bed or the like, which has a firm stationary bearing on the floor to a wheeled article in the nature of a go-cart or baby carriage which can be used as such out of doors, or when the article is used entirely in the house, may, when thus converted, be rolled from place to place.

The invention has for further objects the new and useful combinations and arrangements of mechanical means hereinafter described and claimed whereby there is provided a suitable and convenient form of convertible cot, cradle, bed or the like of the general character above described.

The invention is illustrated in a preferred embodiment in the accompanying drawings, wherein:—

Figure 1 is a side elevation showing the device rigidly supported with the wheels lifted from the ground, the bed or cradle portion being shown as swung from its normal position for the purpose of better illustration of the different parts of the device. Fig. 2 is a similar view showing the device supported on the wheels with the legs folded up. Fig. 3 is a plan view. Fig. 4 an end elevation with the parts shown in the position illustrated in Fig. 1 and Fig. 5 a fragmentary sectional view taken on line 5—5 of Fig. 3, looking in the direction of the arrows.

Like characters of reference indicate like parts in the several figures of the drawings.

The device may be said to consist of a bed section, two sets of supports, the stationary supports or legs and the rolling supports or wheels, and means whereby said sets of supports may in alternation be brought into or out of operative position, as desired. The bed section is shown as consisting of a supporting framework and of a swinging portion, the device being therefore in the form of a cradle. It is obvious, however, that the swinging or rocking feature of the device might be omitted, in which case the bed section would be in the form of an ordinary bed or cot.

Referring to the drawings the framework, as shown, consists of the four uprights 10 joined together by the pairs of side bars 11 and 12 and by the end bars 13. The swinging portion consists of a bed or cradle 14 which is supported from the uprights 10 by the swinging frames 15 which are pivoted to the upper ends of the uprights 10 and to the lower corners of the bed. The stationary supporting means is shown as consisting of the legs 16 which are pivoted in the ends of the uprights 10. The rolling support is made up of the wheels 17 mounted on axles 18 which are journaled in a truck consisting of the side pieces 19, hangers 20 and bracing struts 21. A lever 22 is pivoted to the side piece 19 of the truck on one side of the device. It is also pivoted at 23 to the side bar 12 on the same side of the device; these pivotal connections being in oblique arrangement when the side pieces 19 are in contact with the side bars 12. The side piece 19 is also connected with the side bar 12 and preferably on each side of the device by a pair of pivoted diagonally placed links 24. The pivot 23 between the lever 22 and the side bar 12 consists of a pin which is rigidly connected to the lever and which extends through the side bar 12 and carries rigidly thereon the gear wheel 25 which meshes with a gear wheel 26 on the side bar 12. Gear wheels 25 and 26 are provided with the levers 27, 28 respectively, and the ends of these levers are connected to the adjacent legs 16 by means of the pivoted links 29 and 30. Gear wheel 25 is operatively connected with a gear wheel 31 on the opposite side of the device by means of a bar 32, the angular ends of which 33 and 34 are secured respectively to the lever 27 and a corresponding lever 35 on gear wheel 31. The latter meshes with a gear wheel 36 having a lever 37 and the levers 35 and 37 are connected by means of links 38, 39 respectively, with the folding legs 16 on that

side of the device. The pivot 40 of gear wheel 31 carries on its outer end a lever 41 which is pivoted to the side piece 19.

The device may be provided with any suitable form of handle or handles. I have shown two handles 42, one at each end.

The convertible cot or cradle above described may be made of any suitable material, such for example as wood, or metal tubing, and in general the form and construction of the various parts may be in accordance with any desired design.

My invention is not limited to the particular constructions, arrangements and design of parts shown. The article is in the form of a cradle with the bed portion mounted so that it can rock or swing, but this is not an essential feature of the invention.

The operation of the device, as shown and described, is as follows: With the parts in the position shown in Fig. 1 the bed or cradle section is firmly supported on the legs 16, the wheels 17 being lifted from the floor. The legs can not accidentally fold up because of the angular position of the links 29, 30, 38 and 39 in relation to the respective levers on the gear wheels with which they are connected, these parts being maintained in this relationship by the weight of the bed or cradle section. In order to fold up the legs 16 and bring the wheels 17 in contact with the floor, the lever 22 is swung to the right, reference being made to Fig. 1, which movement results, first, in moving the truck on which the wheels are mounted downwardly so as to bring the wheels in contact with the ground; second, in raising the bed section so as to lift the legs 16 out of contact with the ground, and finally, when the legs have been raised sufficiently to clear the ground, in folding the legs up under the side bars 12 into the position shown in Fig. 2, with the bed section again in contact with the truck which now supports it. By this movement of the lever the bed section is shifted lengthwise of the truck. The movement of the parts is so calculated that the folding of the legs does not begin until wheels 17 are in contact with the ground and until the bed section has been raised high enough above the truck to permit the lower ends of the legs to clear the ground. No strain, therefore, is put upon the legs when they are folded. To restore the parts to the position shown in Fig. 1 it is necessary simply to move the lever back to its original position. The unfolding of the legs in this movement takes place before they come into contact with the ground, this resulting from the fact that the bed section does not come into contact with the truck until after the pivotal points between the links 29, 30, 38 and 39 have passed out of alinement with the pivotal points of these links with the legs and the pivots of the respective gear wheels.

With the parts in the position shown in Fig. 1, the device is firmly and rigidly supported on legs which are in effect locked in their extended supporting position. With the parts in the position shown in Fig. 2 the device is converted into a wheeled or rolling cradle, cot, bed or the like which may be used as a go-cart or baby carriage in which case it may be propelled by means of one of the handles 42.

I claim:

1. In an article of the character described, the combination with a bed section, of rolling supporting means connected with the bed section so that the bed section may be raised therefrom, means for raising said bed section relative to said rolling supporting means, and folding supports which are adapted to be folded or unfolded while said bed section is so raised.

2. In an article of the character described, the combination with a bed section, of rolling supporting means connected with the bed section so that the bed section may be raised therefrom, means for raising said bed section relative to said rolling supporting means, folding supports and means operated by said raising means for folding and unfolding said supports while the bed section is so raised.

3. In an article of the character described, the combination with a bed section, of legs hinged to said bed section, rolling supporting means for said bed section, links connecting the bed section with the rolling supporting means, means for raising said bed section from said rolling supporting means, and operatively connected therewith means for folding and unfolding said legs.

4. In an article of the character described, the combination with a bed section, of legs hinged to said bed section, rolling supporting means for said bed section, links connecting the bed section with the rolling supporting means, means for raising said bed section from said rolling supporting means, and operatively connected therewith means for folding and unfolding said legs and for locking the same in their extended position.

5. In an article of the character described, the combination with a bed section, of legs hinged thereto, rolling supporting means for said bed section, links connecting the bed section with the rolling supporting means, means for shifting said bed section lengthwise of the rolling supporting means, and connected therewith means for folding and unfolding said legs.

6. In an article of the character described, the combination with a bed section, of legs hinged thereto, a truck provided with wheels, links connecting said bed section with said truck, a lever connected with said

bed section and with said truck for shifting the former lengthwise of the latter, and means connecting said lever and legs whereby the legs are folded and unfolded by the shifting movement of the bed section on the truck.

7. In an article of the character described, the combination with a bed section, of legs hinged thereto, a truck provided with wheels, links connecting said bed section with said truck, a lever connected with said bed section and with said truck for shifting the former lengthwise of the latter, gears which are meshed together and rotated by the lever, and links connecting said gears with said hinged legs, substantially as described.

8. In an article of the character described, the combination with a bed section, of legs hinged thereto, a truck provided with wheels, links connecting said bed section with said truck, a lever connected with said bed section and with said truck for shifting the former lengthwise of the latter, gears which are meshed together and rotated by the lever, links connecting said gears with said hinged legs, and a handle on said bed section, substantially as described.

9. In an article of the character described, the combination with a bed section, of rolling supporting means for the same, folding supports for the same, links connecting the bed section and rolling supporting means, means for moving the bed section relative to said rolling supports and connected therewith means for folding and unfolding the folding supports.

10. In an article of the character described, the combination with a bed section, of wheels which support the same, two pairs of folding legs on said bed section which fold toward each other, a lever on said bed section, links connected with said folding legs, and means connecting said links and lever whereby the movement of the lever folds and unfolds the legs.

11. In an article of the character described, the combination with a bed section, of wheels which support the same, folding legs on said bed section, a lever on said bed section, links connected with said folding legs, means connecting said links and lever whereby the movement of the lever folds and unfolds the legs, and means for raising the bed section relative to the wheels.

12. In an article of the character described, the combination with a bed section, of legs pivoted to the same so as to fold, rolling supporting means for said bed section, links connecting said bed section and rolling supporting means, and means for raising said bed section relative to said rolling supporting means.

BENGT LARSON.

Witnesses:
P. H. TRUMAN,
E. L. BREIDERT.