(No Model.) 2 Sheets—Sheet 1.

N. ERNST.

BEDSTEAD.

No. 535,687. Patented Mar. 12, 1895.

Fig. 1.

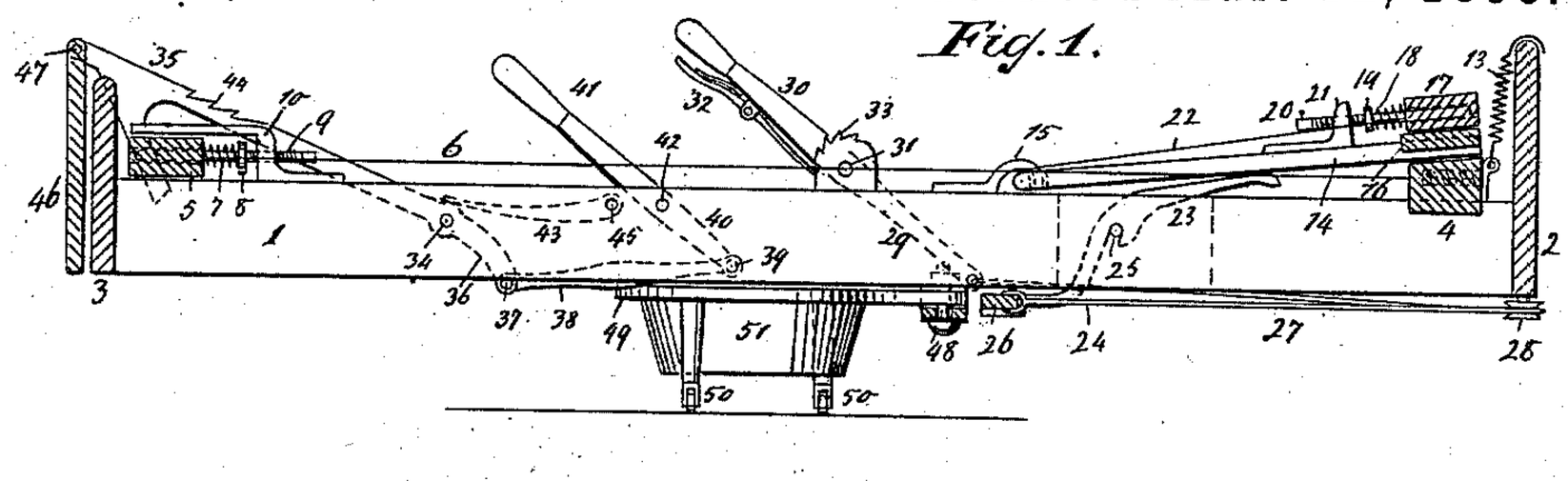


Fig. 2.

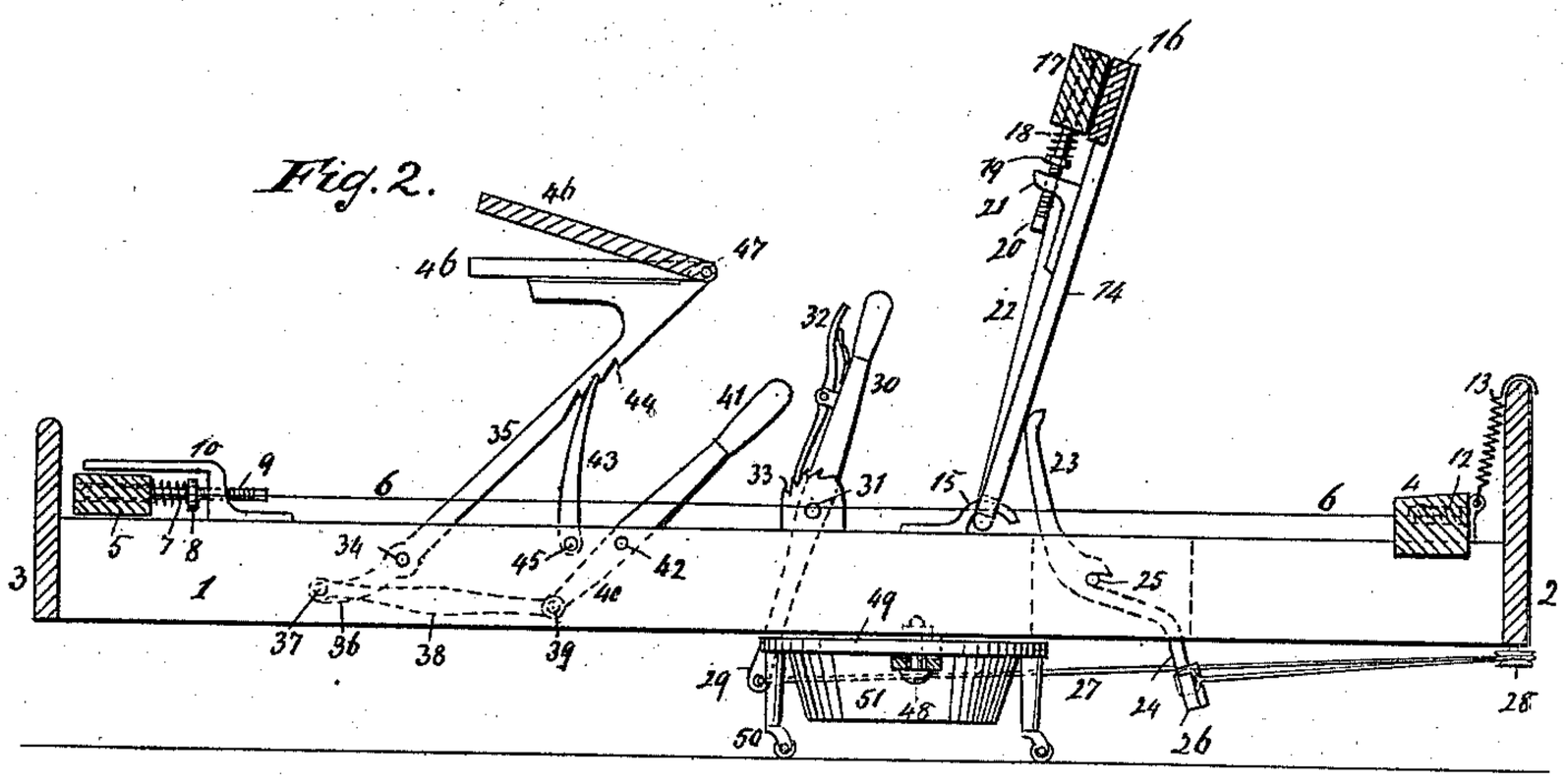


Fig. 3.

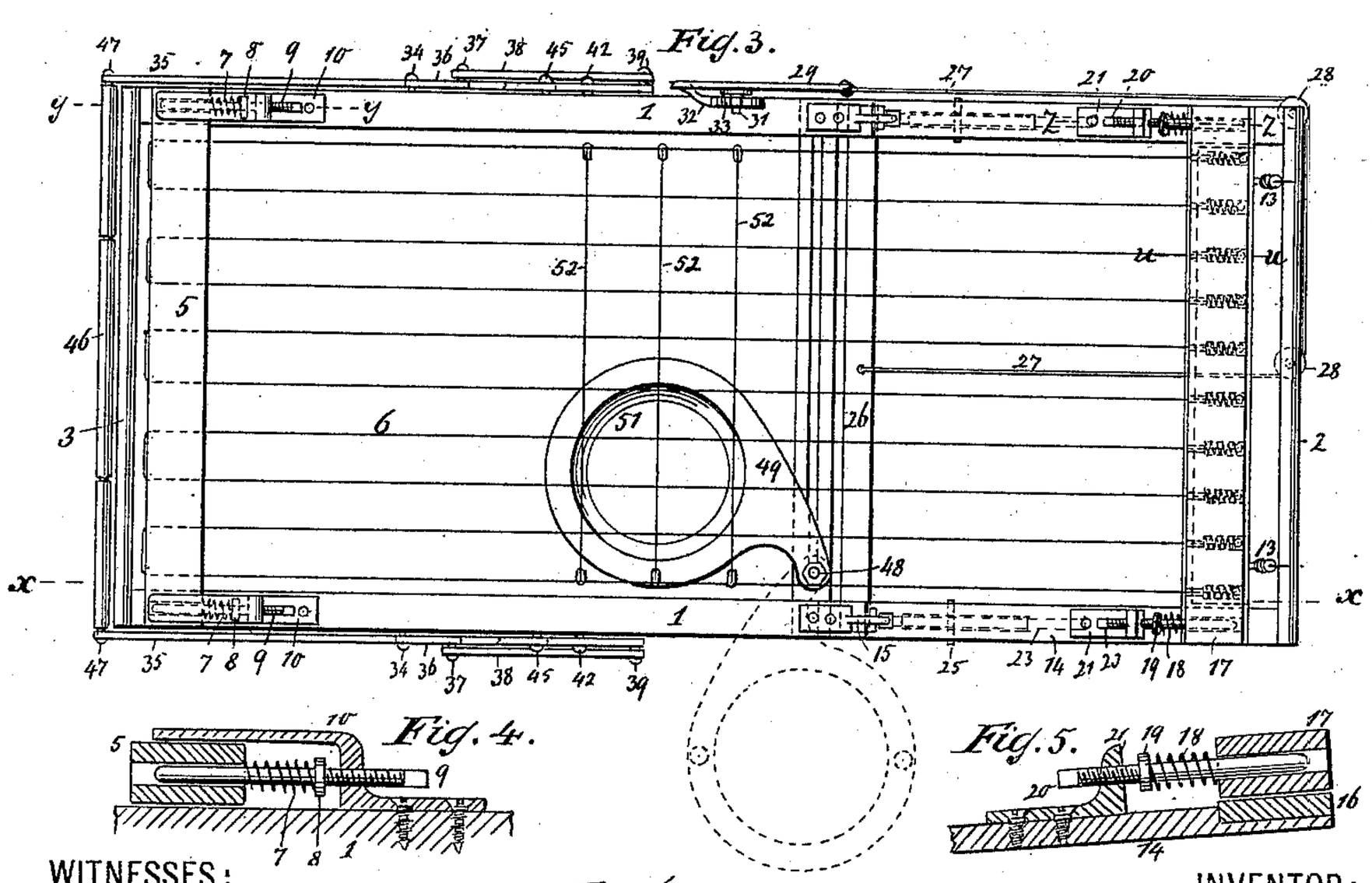
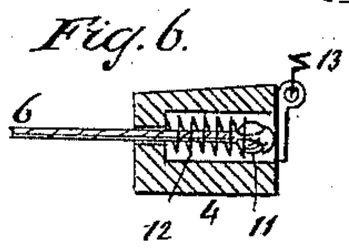


Fig. 4.

Fig. 5.

Fig. 6.



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Chas. E. Koenigen.

INVENTOR:

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BY

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his ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

N. ERNST.

BEDSTEAD.

No. 535,687. Patented Mar. 12, 1895.

Fig. 7.

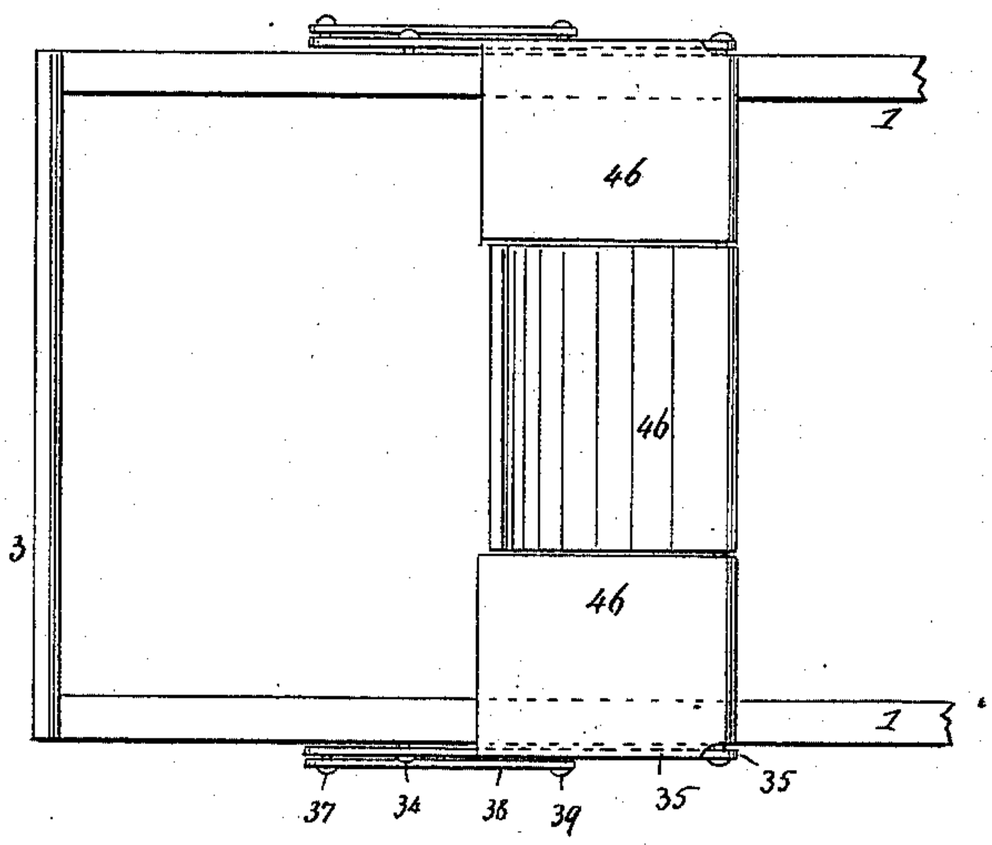


Fig. 8.

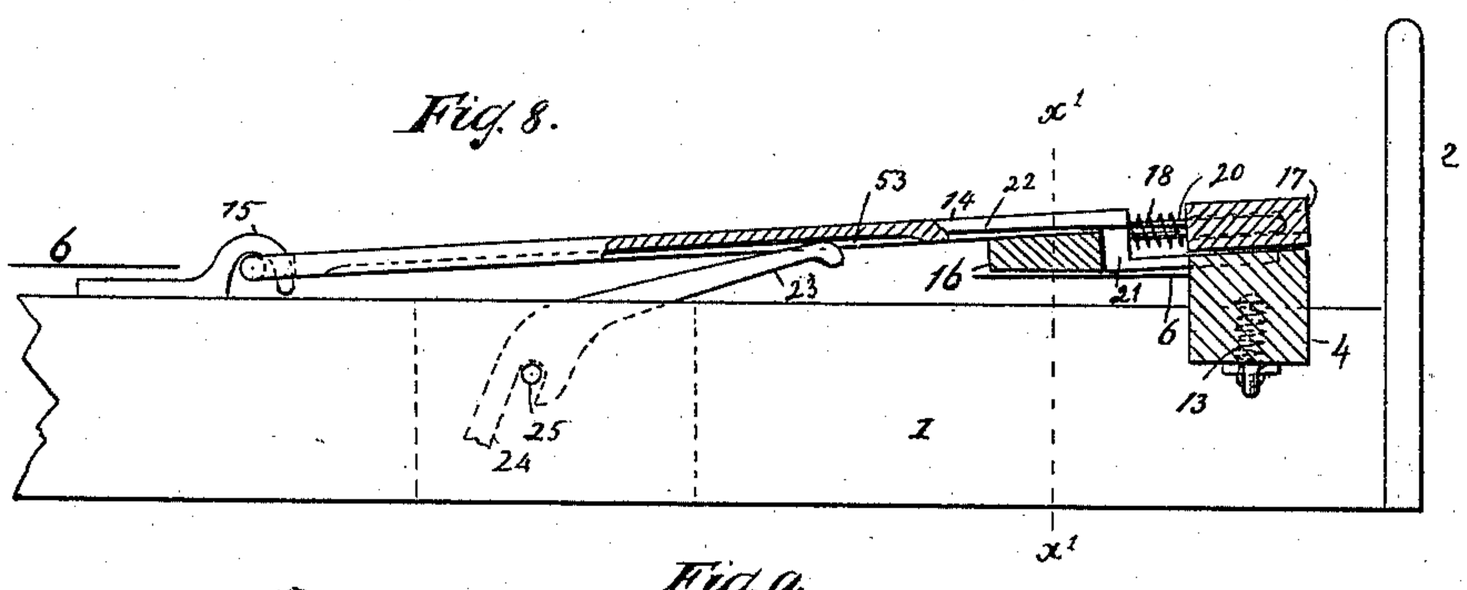


Fig. 9.

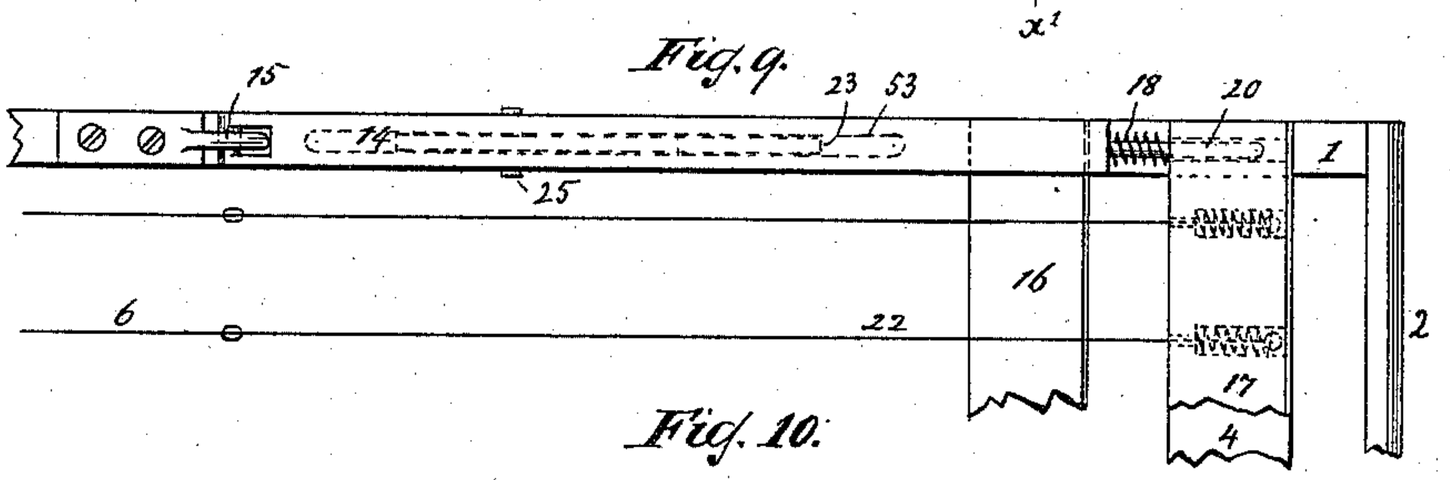


Fig. 10.

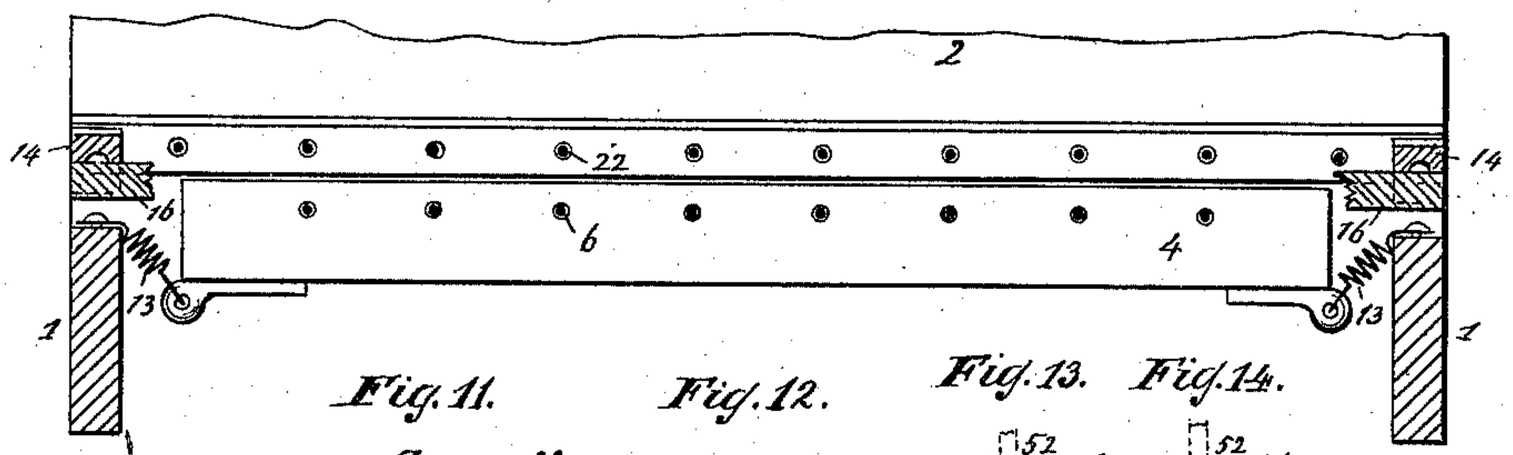


Fig. 11.

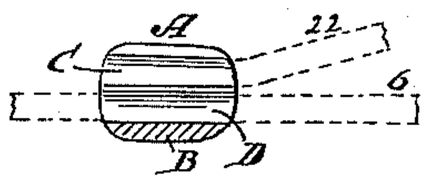


Fig. 12.

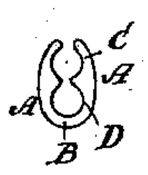


Fig. 13.

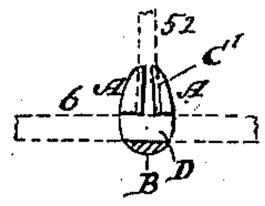
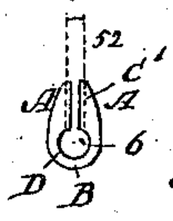


Fig. 14.



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UNITED STATES PATENT OFFICE.

NICOLAUS ERNST, OF BROOKLYN, NEW YORK.

BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 535,687, dated March 12, 1895.

Application filed August 9, 1894. Serial No. 519,831. (No model.)

To all whom it may concern:

Be it known that I, NICOLAUS ERNST, a subject of the King of Bavaria, Germany, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Bedsteads, of which the following is a specification.

This invention relates to an improvement in bedsteads, the invention residing in the novel features of construction set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a side elevation of the bedstead sectioned along *x x* Fig. 3. Fig. 2 is a view similar to Fig. 1 with parts in a different position than in Fig. 1. Fig. 3 is a plan view of Fig. 1. Fig. 4 is a section along *y y* Fig. 3. Fig. 5 is a section along *z z* Fig. 3. Fig. 6 is a section along *u u* Fig. 3. Fig. 7 is a plan view of a table. Fig. 8 is a sectional side elevation of a modified form of swinging head rest. Fig. 9 is a plan view of Fig. 8. Fig. 10 is a section along *x' x'* Fig. 8. Figs. 11 to 14 show sectional views and end elevations of grips or fastenings.

The bedstead frame comprises the side pieces 1, the head board 2 and foot board 3. This frame can be suitably supported as known on legs or supports (not shown). The head rail 4 and foot rail 5 extend across the frame and are provided with a flexible bottom 6. The foot rail 5 can slide or yield on the side pieces 1 the end portions of rail 5 resting against springs 7 braced against shoulders 8 on screws or bolts 9 which can be adjusted in arms 10 secured to side pieces 1 and between which arms 10 and the side pieces the rail 5 is placed. The springs 7 enable the rail 5 to yield or give to a weight or body resting on bottom 6.

The bottom 6 is readily formed by cords, wires or similar flexible connections which will be held in place by being looped through or to the rail 5 and having their free ends enlarged or knotted as at 11 (Fig. 6) and braced against springs 12. The springs 12 are shown housed or braced in rail 4, said rail being perforated for the passage of the cords of bottom 6, but said perforations not being large enough to allow the springs 12 to be drawn or to pass therethrough. The springs 7 bracing the movable rail 5 and the springs 12 bracing the free ends of the bottom cords, said bottom will yield readily to a weight or body thereon.

The bed can further be made easy by suspending the head rail 4 by means of springs 13 to head board 2 (Fig. 1) or to the side pieces 1 (Fig. 10).

The bed is provided with a swinging head rest, the side pieces 14 of which being hooked or slipped onto the catches or hooks 15 on side pieces 1 will joint the head rest to the bed frame so that the head rest can be raised (Fig. 2) or lowered (Fig. 1). The side pieces 14 have a cross piece 16 on which is a rail 17 having its end portions braced against springs 18 resting against shoulders 19 on the screws or bolts 20 which can be adjusted in the arms or lugs 21 on side pieces 14. The cords or flexible connections of the head rest bottom 22 being looped to or through the rail 17 and having their free ends secured to the cords of the flexible bed bottom 6, said bottom 22 will be made suitably yielding.

The head rest can be suitably raised by arms 23, of the levers 23, 24 which levers being slipped into suitable recesses or slits in side pieces 1 and being suitably supported on pins 25 in said recesses will fulcrum on said pins. The cross piece 26 connecting lever arms 24 has connected thereto a cord or flexible connection 27 running over pulleys 28 to lever 29, 30 fulcrumed at 31 to a side piece 1. The hand lever 29, 30 has a catch or detent 32 which being engaged to one or another of the teeth 33 will set the lever 29, 30 with lever frame 23, 24, 26 so that the head frame 14, 16 will be held at a desired angle or inclination.

Fulcrumed to side pieces 1 at 34 are levers 35, 36 to which at 37 are jointed links 38 jointed at 39 to levers 40, 41 fulcrumed at 42 to side pieces 1. The actuation of levers 40, 41 will raise or lower levers 35, 36, and the detents 43 engaging one or another of the teeth 44 on lever arms 35 will hold said arms 35 at varying adjustment. The detents 43 are jointed at 45 to side pieces 1. The arms 35 support a table 46. This table can be fixed to the arms 35 or jointed thereto at 47, or the table 46 might be made in sections or portions some of which are fixed to the arms 35 while others are jointed. The joint 47 en-

ables the table 46 or the jointed section of said table to be raised or tilted as for example to form a desk.

Jointed to the bed frame at 48 is a movable or swiveling frame or support 49 the free part of which may have legs or supports 50. The frame 49 being provided with a basin or utensil 51, the latter can be readily moved or swung out from under the bed as shown in broken lines in Fig. 3, or swung under the bed as seen in full lines in Fig. 3.

The weight on part of bottom 6 can be distributed by means of cross connections or cords 52 extending across the cords of bottom 6.

The bed is useful for invalids or persons confined.

The basin or receptacle 51 when supplied with ice or other cooling medium will keep the bed as also the atmosphere cool so that the occupant of the bed will not be irritated by the heat, or under required circumstances the frame 49 might be provided with a heating or warming apparatus.

The arms or side pieces 14 of the swinging head rest are advantageously provided with grooves 53 (Figs. 8 and 9) in which grooves the arms 23 can slide or be guided so as not to move or bend laterally out of engagement with the side pieces 14.

In Fig. 1 the head rest side pieces 14 have the lugs 21 with stems 20 and cross pieces 17 and 16 located at the upper sides of pieces 14, but by placing these parts below said upper sides as in Fig. 8, no projection will extend above the upper side of the head rest to cause any inconvenience.

To fasten the cords of the head rest bottom 22 to the cords of bottom 6 the fastening shown in Figs. 11 and 12 is advantageously employed. The fastening consists of wings A A joined by the connection or web B. The wings A have the grooves C D for the respective engagement of the cords 22 and 6 and said fastening A B is compressible so that when the cords are in place in their grooves the wings A can be compressed to grasp or clamp the cords and prevent disengagement.

To fasten the cross cords 52 the form of fastening shown in Figs. 13 and 14 is employed, said fastening having the parts A B and groove D as before, the groove C′ being however placed at a different angle to groove D than that occupied by groove C in Fig. 11 so as to properly receive a cross cord 52. The fastenings A B are suitably made from metal of proper strength and compressibility.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a bedstead, the combination of a head-rail and a foot-rail, adjustable springs for yieldingly holding one of the rails, a bed bottom consisting of cords or flexible connections secured to one of the rails and connected by yielding connections to the other rail, a swinging head-rest provided with a head-rail connected thereto by adjustable springs, and cords or flexible connections each connected at one end to the cords of the bed bottom and at their other ends to springs carried by the head-rail of the head-rest, substantially as described.

2. A bedstead provided with a swinging head rest, in combination with a lever fulcrumed at the side of the bed between the head rest and the foot of the bed, and having an upwardly extending arm within reach of the occupant of the bed and connected to the head rest, so that the motion of the upwardly extending lever arm toward the head of the bed will raise the swinging head rest, and a detent for said lever carried by said upwardly extending lever arm so as to be within reach of the occupant of the bed to enable said occupant to free the lever for lowering the head rest substantially as described.

3. A bedstead provided with a table, supporting levers for the table fulcrumed to the bedstead intermediate their ends and provided with a series of teeth, a pivoted detent adjustably engaging said teeth for supporting said levers, a hand lever pivotally connected intermediate its ends to the bedstead, and a link connecting the lower ends of said supporting levers and the hand lever, substantially as described.

4. A bedstead provided with a table, supporting levers for the table fulcrumed to the bedstead intermediate their ends and provided with a series of teeth, a pivoted detent adjustably engaging said teeth for supporting said levers, a hand-lever pivotally connected intermediate its ends to the bedstead, and a link connecting the lower ends of said supporting levers and the hand-lever, said table being made in sections respectively fixed and jointed to the supporting levers, substantially as described.

5. A bedstead provided with a swinging head rest, in combination with a lever fulcrumed at the side of the bed between the head rest and the foot of the bed, and having an upwardly extending arm within reach of the occupant of the bed, and lifting arms 23 for the head rest connected to the lever so that the motion of the upwardly extending lever arm toward the head of the bed will operate the lifting arms and raise the swinging head rest, and a detent for said lever carried by said upwardly extending lever arm so as to be within reach of the occupant of the bed to enable said occupant to free the lever for lowering the head rest substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

NICOLAUS ERNST.

Witnesses:
WM. C. HAUFF,
E. F. KASTENHUBER.