

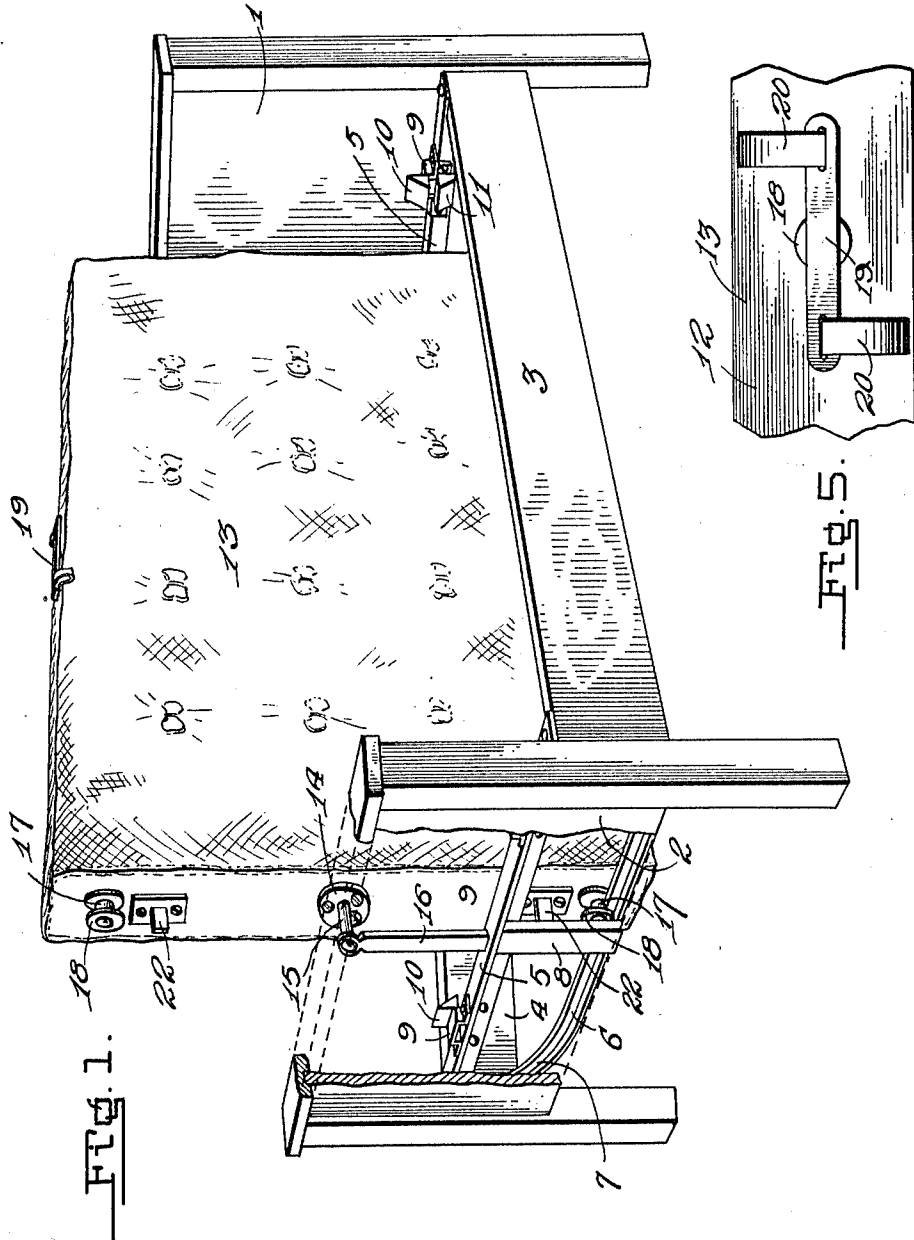
A. A. GROSS.
REVERSIBLE SPRING.

APPLICATION FILED APR. 12, 1910. RENEWED JAN. 23, 1911.

1,001,390.

Patented Aug. 22, 1911.

2 SHEETS-SHEET 1.



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Witnesses

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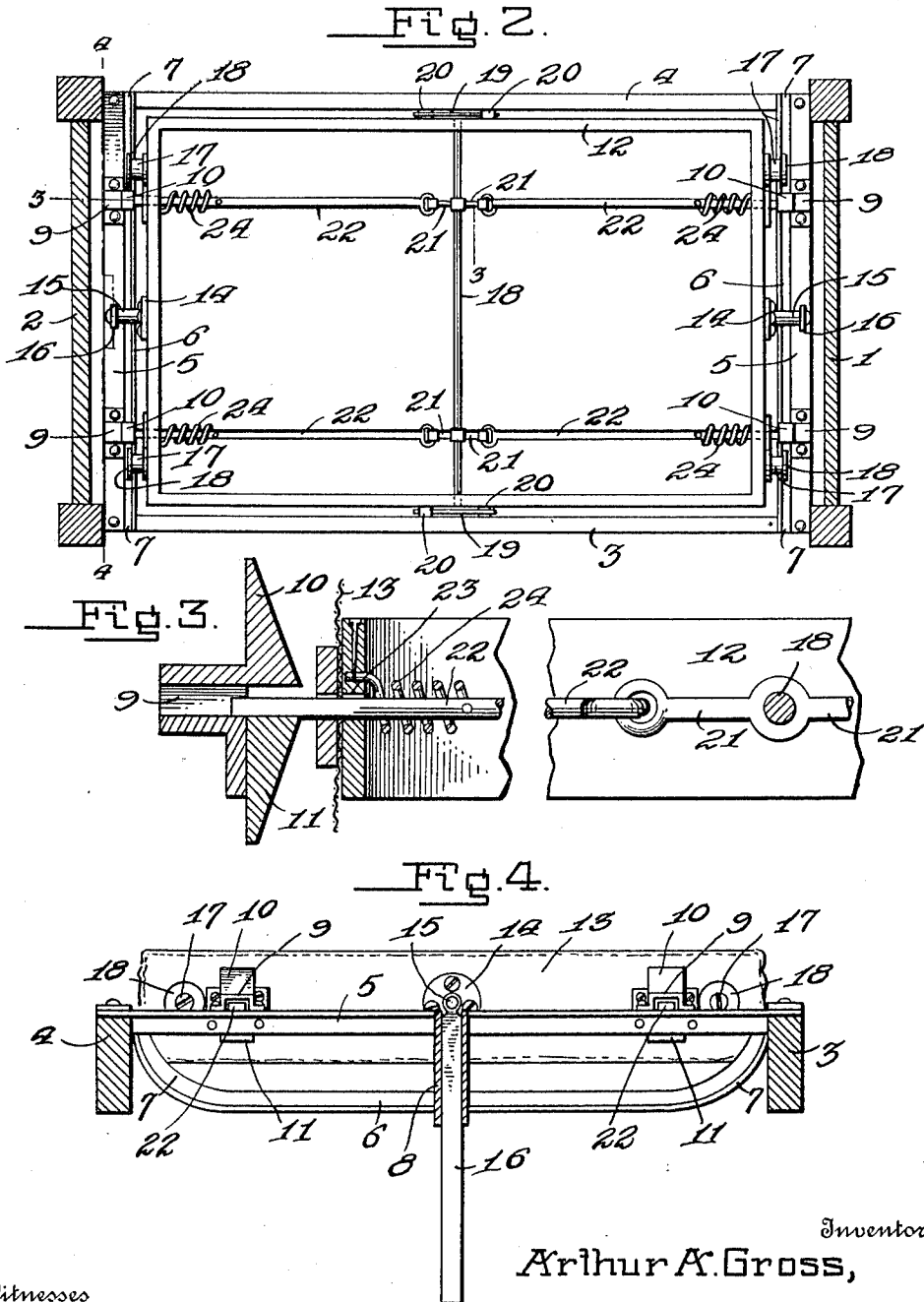
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UNITED STATES PATENT OFFICE.

ARTHUR A. GROSS, OF DES MOINES, IOWA.

REVERSIBLE SPRING.

1,001,390.

Specification of Letters Patent.

Patented Aug. 22, 1911.

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To all whom it may concern:

Be it known that I, ARTHUR A. GROSS, a citizen of the United States of America, residing at Des Moines, in the county of Polk and State of Iowa, have invented certain new and useful Improvements in Reversible Springs, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to beds, and the principal object of the same is to provide a novel mattress or bed bottom therefor which has a pivotal connection with the bed frame so that said mattress or bed bottom
15 may be swung to a position at angles to the bed frame to facilitate cleaning beneath the bed, and also to provide means whereby the mattress or bed bottom may be reversed.

20 In carrying out the objects of the invention generally stated above it will be understood, of course, that the essential features thereof are necessarily susceptible of changes in details and structural arrangements, one preferred and practical embodiment of
25 which is shown in the accompanying drawings, wherein:—

Figure 1 is a perspective view of a bed embodying this invention, the mattress being supported in a vertical position. Fig.
30 2 is a top plan view, the head and foot being in section, and the mattress covering omitted. Fig. 3 is a fragmentary vertical sectional view taken on the line 3—3, Fig. 2. Fig. 4 is a transverse vertical sectional view
35 taken on the line 4—4, Fig. 2. Fig. 5 is a detail view in side elevation of one side of the mattress, showing one of the hand levers.

Referring to said drawings by numerals,
40 it will be seen that the improved mattress and its supporting means have been shown in connection with a common type of bed which includes the head and foot boards 1—2, and the connecting side boards 3—4.
45 At their head and foot, the side boards 1—2 are connected by the bars 5, which are preferably angle bars, and a track 6 has its curved ends 7 fastened to the ends of each bar 5 to suspend said track below said bars.
50 Said tracks are preferably of angle iron to provide a flat runway and an upstanding guard flange. At their center, each bar 5 carries a pendent vertical guide housing 8, and adjacent each end, said bars 5 are provided with a latch keeper 9, said keepers
55 being provided with upper and lower beveled

guard flanges 10—11 which guide a latch to said keepers.

The mattress or bed bottom forming a part of this invention is composed of a rectangular frame 12 which may be of wood
60 or metal and provided with a fabric covering 13. At each end, said frame has a plate 14 centrally fastened thereto from which a pivot shaft 15 projects. Said pivot shafts
65 engage the end eyes of standards 16 which are slidably mounted in the guide housings 8. Adjacent each end corner of frame 12 a shaft 17 is fastened to said frame, each
70 shaft being provided with a roller 18 adapted to engage the track 6 as the mattress is rocked relative to the bed frame.

A shaft 18 extends transversely through the center of frame 12, the ends of said shaft projecting beyond the sides of said
75 frame and equipped with levers 19 the ends of which are provided with handgrips 20. Within frame 12, shaft 18 is provided with two pairs of crank arms 21, the members of each pair of arms projecting in opposite
80 direction and being flexibly connected to latch rods 22 which are slidable through opening 23 in the ends of frame 12, and adapted to engage latch keepers 9 to retain the mattress in a horizontal position. A
85 spring 24 is coiled about each rod 22, one end of said springs being suitably fastened to the rod it surrounds, the other end thereof being fastened to the ends of frame 12. As will be obvious, said springs normally
90 project the latching rods beyond the ends of frame 12 so that they will engage keepers 9.

In use, assuming the bed bottom to be in a horizontal position, it will be seen that by rocking shaft 18, the latching rods 22 will
95 be released from keepers 9, whereupon, the bed bottom may be rotated on its pivot to a position at right angles to the bed frame. While rotating the bed bottom one roller at each end will run upon tracks 6, causing the
100 bed bottom to rise from the bed frame, and simultaneously cause standards 16 to rise in their housing, so that the pivotal supports for the bed bottom are in position to permit the said bed bottom to be rotated without
105 contacting with the floor. It will be clear, of course, that the bed bottom may be turned completely over and when returning to its horizontal position, the ends of latching rods 22 will contact with the guard
110 flanges of keepers 9, and be guided thereby to said keepers.

What I claim as my invention is:—

1. A bed comprising a frame, a track carried by each end thereof, a bar supported above each track, a guide housing carried
5 by each bar, a standard slidable in each housing, a mattress for said bed, a pivot shaft at each end thereof for engagement with said standards, rollers at the ends of said mattress for engagement with said
10 tracks, and means for locking said mattress to said bars.

2. A bed comprising a frame, a track carried by each end thereof, guiding means carried by the ends of the frame, a mattress,
15 standards pivotally connected to the ends of said mattress and slidable in said guiding-means, and rotatable means carried by the ends of said mattress and adapted to engage said track.

20 3. A bed comprising a frame, a track at each end thereof, a vertically arranged

guide housing at each end of said frame, a mattress, standards pivotally connected thereto and slidably engaging said housings, and rollers carried by the mattress and en- 25 gaging said tracks.

4. A bed comprising a frame, end bars carried thereby, a pendent vertical housing carried by each bar, a standard slidable in each housing, a mattress for said frame, 30 pivot shafts carried by the ends of said mattress and engaging said standards, tracks carried by said frame, rollers carried by said mattress and adapted to engage said tracks, and means for locking said mattress 35 to said bars.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

ARTHUR A. GROSS.

Witnesses:

LENA ALTENBURGER,
A. D. BOTHAR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."