

R. S. RICHESON.
GYROMOTOR BODY SHIFTER.
APPLICATION FILED NOV. 3, 1911.

1,062,415.

Patented May 20, 1913.

2 SHEETS—SHEET 1.

FIG. 1.

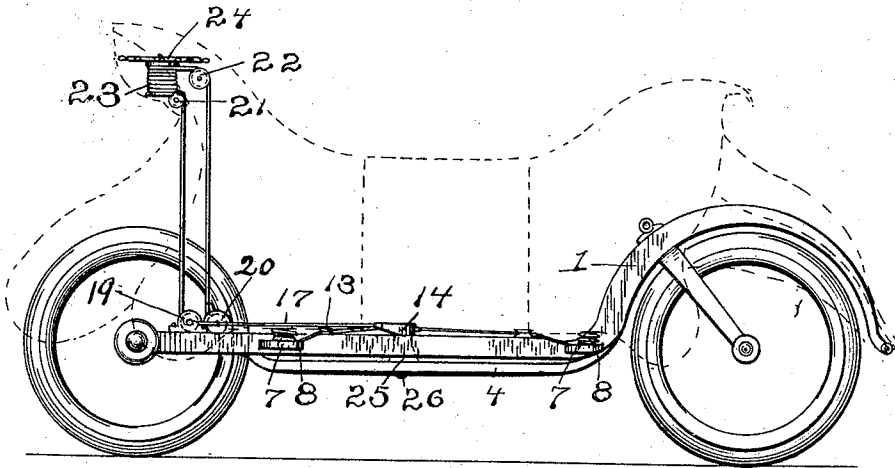


FIG. 2.

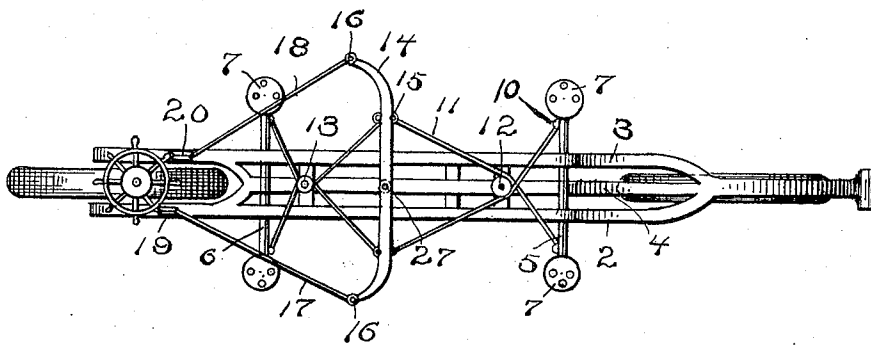
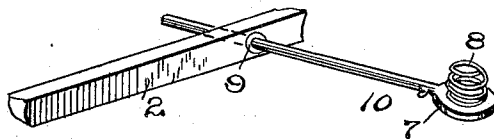


FIG. 3.



WITNESSES

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2 SHEETS—SHEET 2.

FIG. 4.

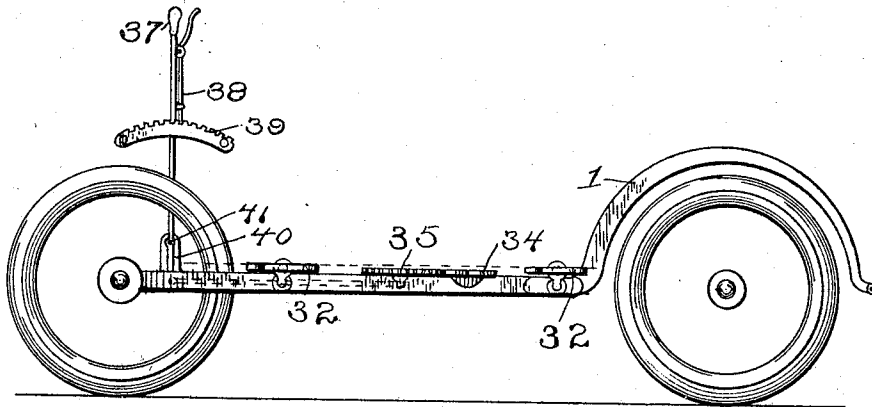
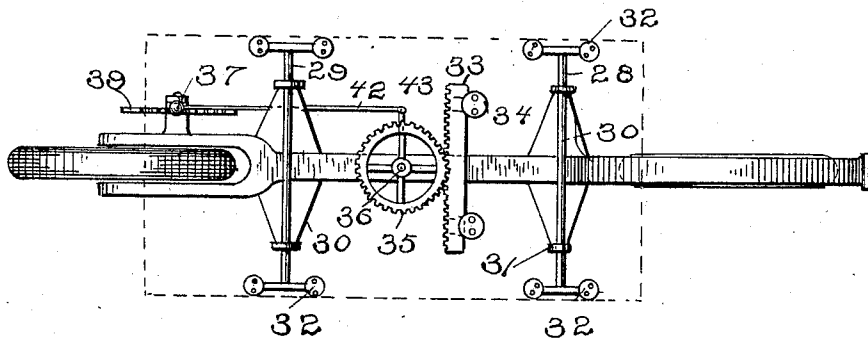


FIG. 5.



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RICHARD SHELTON RICHESON, OF ST. LOUIS, MISSOURI.

GYROMOTOR-BODY SHIFTER.

1,062,415.

Specification of Letters Patent.

Patented May 20, 1913.

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To all whom it may concern:

Be it known that I, RICHARD SHELTON RICHESON, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Gyromotor-Body Shifters, of which the following is a specification.

My invention relates to gyromotors, and particularly to a body-shifting apparatus for the same.

The object thereof is to so construct the machine that by the simple manipulation of a lever, or the like, the body may be easily moved from one side of the frame to the other, as desired, so that the center of gravity may be maintained directly over the wheels irrespective of the weight of the occupants.

In the drawings forming a part of this specification, and in which like symbols of reference represent corresponding parts in the several views:—Figure 1 is a side view of the device, with the body shown in dotted lines; Fig. 2 a plan view of the same, with the body removed; Fig. 3 a view of one of the body-supporting slide rods and a portion of the rib of the device with the bearing formed in the same; Fig. 4 is a longitudinal view of a modified form of the device; and, Fig. 5 a plan view of the modification.

1 indicates the central rib of the machine composed of side pieces 2 and 3 and a central piece 4, said central piece being formed in a lower plane than the side pieces.

5 and 6 are slide rods having enlarged spring-supporting ends 7; and 8 the springs upon which the body of the machine is adapted to be supported.

9 are perforations or bearings in the rib pieces 2 and 3; 10 perforated bosses in which a cable 11 is adapted to be connected; and 12 and 13 idle pulleys to direct the cable.

14 is a shift rod having perforated bosses 15 for the cable 11; and 16 for the cables 17 and 18.

19 and 20 are idle pulleys to direct the cables 17 and 18 to idle pulleys 21 and 22, which in turn direct them to a drum 23, said drum being adapted to be operated by a hand-wheel 24. The cable has, preferably, several coils upon the drum to hold it in proper relation to the same in its operation.

25 is a short standard rising from the central part 4 of the rib, and is adapted to be secured to the same by a screw, or the like

26, and has a bolt or journal 27 upon which the rod 14 is journaled.

The operation of the device will be apparent from the foregoing, and is as follows:—The hand-wheel for operating the device is preferably located, as shown, at the rear of the machine. When the operator desires to change the position of the body with regard to the frame, he operates the hand-wheel, which if turned to the right directs the body to the right, and if to the left moves it to the left.

In the modification, the central rib 1 may be solid, as shown, and the slide-rods 28 and 29 have brackets 30 extending from the rib to support the same, said brackets having perforated bosses 31 at the ends to form bearings for said rods; and 32 are plates formed on the ends of the rods to connect it to the body of the machine. 33 is a rack having plates 34 for connecting it to the body of the machine; and 35 a pinion journaled upon a pin 36 and adapted to operate in said rack. 37 is a hand-lever; 38 a dog carried by the hand-lever; and 39 a segmental rack within which the dog works. 40 is a bracket having a bearing 41 for the hand-lever; 42 a link connected to the hand-lever; and 43 an arm connecting said link to the pinion 35 to operate the same. This form of the device is operated by simply manipulating the hand-lever. If pushed forward it sends the body to the left, and if backward to the right.

Having now fully described my invention, what I claim as new and desire to secure by Letters-Patent, is:—

1. In combination with a gyromotor, bearings formed in the same, reciprocating rods in said bearings, means for connecting the reciprocating rods to the body of the machine, and means journaled on the supporting frame for operating the reciprocating rods in the bearings so that the body of the machine may be controlled with relation to the supporting frame.

2. In a gyromotor, the combination with the body of the same having an independent relation to the supporting frame, of bearings formed in the supporting frame, reciprocating rods journaled in the bearings and adapted to be connected to the body of the machine, means connected to the frame and to the body to give the frame and body a lateral movement with regard to each other, and means for actuating the shifting means.

3. In a gyromotor, the combination with the body of the machine, of a frame adapted to support the same, bearings formed in said frame, reciprocating rods operating in said bearings, means for connecting the reciprocating rods to the body of the machine, operating means journaled on the supporting frame to control the body, and means for actuating the operating means.
- 10 4. In combination with a gyromotor, a supporting frame for the same, said supporting frame having lateral reciprocating rods having spring-supporting ends, and springs upon said rods to support the machine.
- 15 5. In combination with a gyromotor, a supporting frame for the same, lateral reciprocating rods journaled in the supporting frame, a shift rod pivotally connected to the frame, cables connected to the shift rod and to the reciprocating rods, cables connected to the ends of the shift rod, and means for operating the last mentioned cables to operate the shift rod.
- In testimony whereof I affix my signature in presence of two witnesses.
- RICHARD SHELTON RICHESON.
- Witnesses:
LLOYD O. DOUGLASS,
MAE HARLEY.

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