No. 711,402. Patented Oct. 14, 1902.

H. E. KEYES.

COASTING WAGON.

(Application filed Feb. 5, 1902. Renewed Sept. 18, 1902.)

(No Model.)

Fig. 1.

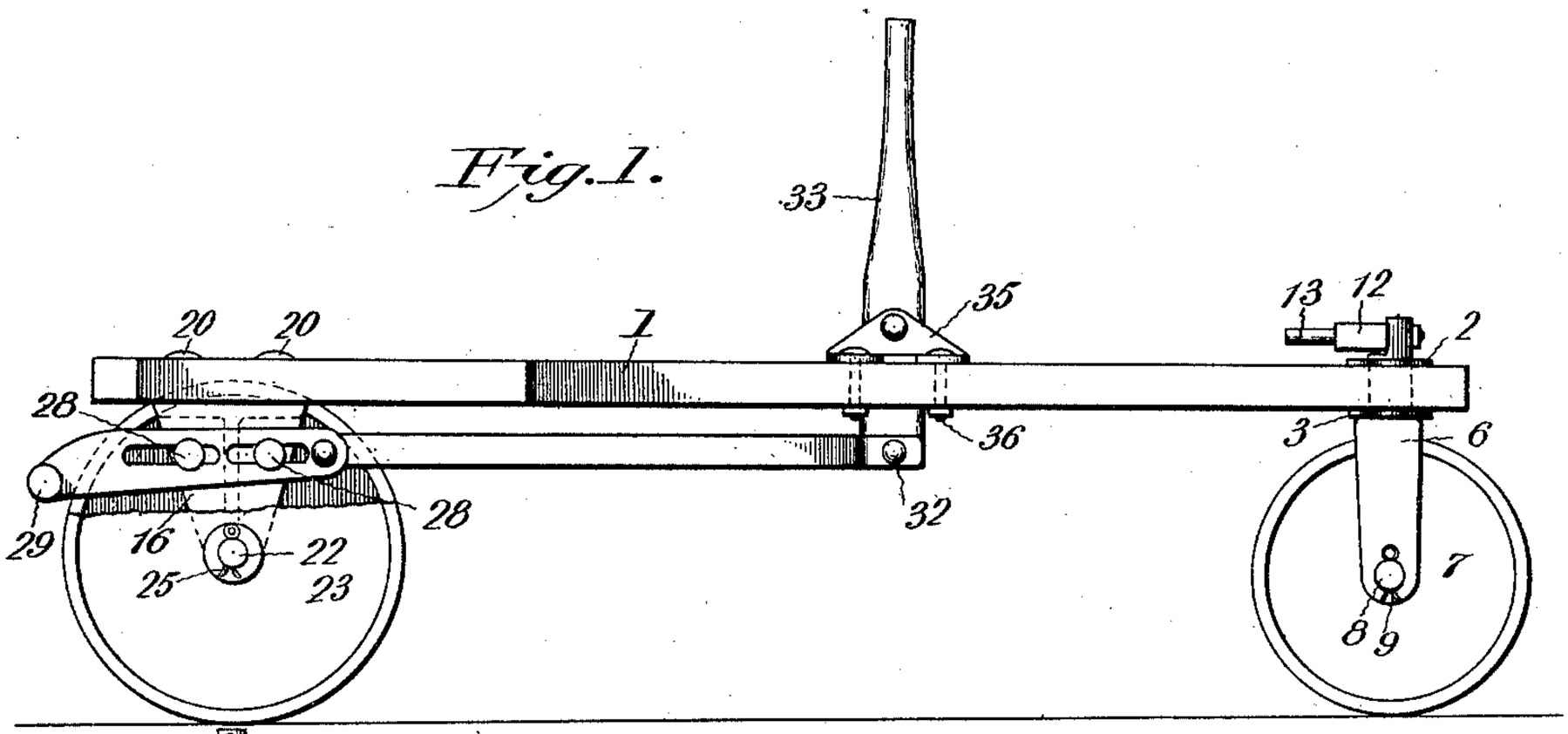


Fig. 2.

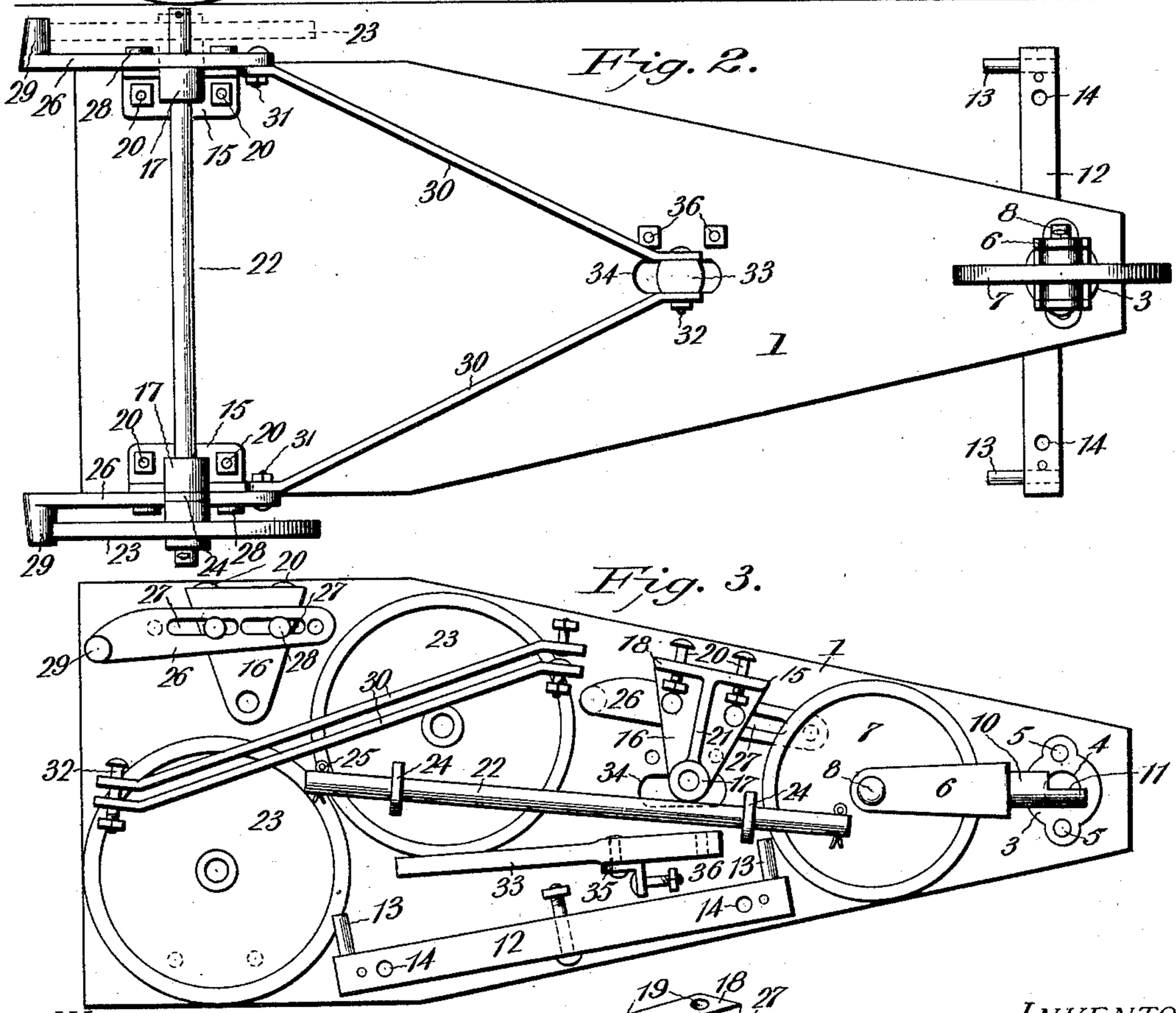
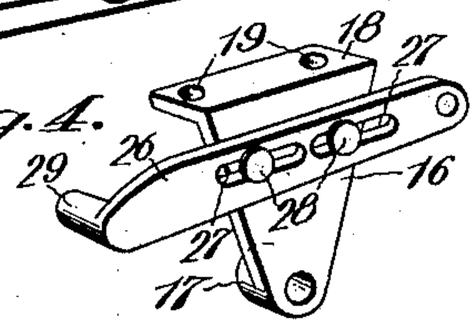


Fig. 3.

Fig. 4.



WITNESSES:

C. H. Walker.

E. C. Finnell.

INVENTOR

Harry E. Keyes

by Wm. V. Finnell

Attorney

UNITED STATES PATENT OFFICE.

HARRY E. KEYES, OF HOMESTEAD, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO GRAVITY COASTER MANUFACTURING COMPANY, OF HOMESTEAD, PENNSYLVANIA, A COPARTNERSHIP.

COASTING-WAGON.

SPECIFICATION forming part of Letters Patent No. 711,402, dated October 14, 1902.

Application filed February 5, 1902. Renewed September 18, 1902. Serial No. 123,881. (No model.)

To all whom it may concern:

Be it known that I, HARRY E. KEYES, a citizen of the United States, residing at Homestead, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Coasting-Wagons, of which the following is a full, clear, and exact description.

The object of this invention is to provide a wagon or truck especially for amusement purposes in coasting down hills or other inclines, natural or artificial.

In carrying out my invention I use by preference a flat board, which is both body and seat, and provide a pair of rear wheels and a single front guiding or pilot wheel, the front wheel being equipped with a foot-rest, so that the guiding may be done by the feet of the user, and I erect upon the body immediately in front of the seat portion a brake-lever, which is connected with brake mechanism adapted to coöperate with the rear wheels, the parts being arranged compactly, so as to have the whole mechanism in easy reach and perfect control of the user. For transportation purposes the parts are removably or detachably applied to the body, so that the wagon may be knocked down and packed into small compass and readily assembled by the dealer or user without employing skilled labor.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a side elevation with the near rear wheel broken away to show the brake-shoe. Fig. 2 is a bottom plan view. Fig. 3 is a plan view of the parts detached or knocked down for shipping purposes. Fig. 4 is a perspective view of one of the rear-wheel brackets or supports and the attached brake-shoe.

The combined body and seat 1 may be made of a flat board or piece of lumber of any suitable kind and thickness and in the form of a truncated wedge. The front or narrower portion of the board has a pair of wear-plates 2 and 3 applied to opposite sides of a hole 4 and connected by rivets 5, so as to become a fixture upon the board 1. This pair of plates and the hole 4 constitute a socket or bearing for the journal of the pilot-wheel fork 6, which is arranged vertically therein and carries in its forked end the pilot-wheel 7 on a pin or axle 8, and this pin or axle 8 may be detachable and held in place by a cotter-pin 9 or other fastening device. The journal or post 10 of the fork 6 is circular in cross-section and is fitted in the hole 4 and wear-plates 2 and 3, and its upper end is cut away at 11, so as to form a seat for the foot-rest 12, and this foot-rest may be of wood or metal, with guards or guard-pins 13 at its outer ends, and it may also be provided with holes 14 for the reception of a cord or chain for dragging the wagon. The foot-rest serves the additional purpose of securing the pilot-wheel to the body.

The rear end of the body is supplied with a pair of brackets 15 of substantially the shape shown in detail in Fig. 4, each of which brackets comprises a vertical portion 16, having at its lower end a transversely-perforated enlargement constituting a box or bearing 17 and at its upper end a right-angle flange 18, perforated at 19 for the passage of fastening screws or bolts 20, by which said bracket is secured to the under side of the body or platform 1. For purposes of strength each bracket may have a vertical rib 21, and the brackets are arranged at opposite sides of the rear portion of the platform 1, with their ribbed sides facing and their outer flat sides substantially flush with the edges of the platform. The boxes or bearings 17 of the brackets receive a shaft or axle 22, upon which are arranged the rear wheels 23, loosely or otherwise, and preferably with a washer 24 interposed between each wheel and its adjacent bracket, and these wheels may be secured to their axle removably by means of cotter-pins or other fastening means 25. The flat sides of the brackets are provided with brake-shoes 26, each of which consists of a plate having one or more longitudinal slots 27, through which pass rivets 28 or other fastenings for securing the said brake-shoes by preference permanently to the said brackets. A later-

ally-projecting lug 29 extends from the rear end of each brake-shoe and constitutes the effective surface of the brake-shoe, said lugs projecting laterally a distance sufficient to extend across and somewhat beyond the rim of the rear wheels to coöperate therewith in braking the wagon. The shoes 26 are connected by links 30, pivoted thereto at 31 and converging forwardly and applied, by a detachable bolt or other device 32, to a vertical lever 33, projecting upwardly through an opening 34 about centrally of the platform 1 and pivoted to a right-angle bracket 35, which in turn is removably attached to the platform, as by means of bolts 36. This lever 33 projects considerably above the level of the top of the platform 1 and at a point to be within convenient reach of a person sitting upon the platform in the rear thereof and with his feet resting upon the foot-rest 12.

The rear wheels may be and are here shown as of greater diameter than the pilot-wheel. The body or platform 1 may incline forwardly slightly, so as to assist gravitation in coasting, or it may be level.

It will be noted that the front fork 6, as shown, has a flat shoulder from which the post 10 rises, and this shoulder abuts against the wear-plate 3 as a bearing.

As shown in Fig. 3, the foot-rest may be detached from the post and the pilot-wheel thus left free to be withdrawn from its socket, and the rear wheels may be detached from their axle, and the axle detached from the brackets, and the brackets detached from the platform, and the links 30 detached from the brake-shoes and the brake-lever, and the brake-lever detached from its bearing 35, and all of these parts laid down substantially flat upon one surface of the platform, and thus dismembered or knocked down the wagon may be readily packed in small compass for transportation purposes and as readily assembled for use without the intervention of skilled labor.

The parts being interchangeable may be readily removed for repairs.

In operation the user straddles the platform, sitting upon the rear thereof, and placing his feet upon the foot-rest 12 with the sides of his feet against the stops 13 and supporting himself by the brake-lever 33 starts the wagon with a lunge forward and guides the same through the pilot-wheel and the foot-rest and regulates the speed by means of the brake, and since he is in position to throw his whole weight upon the brake-lever with the foot-rest as a resistance against which to pull he is in position to stop the wagon very readily.

While I prefer to use a flat board for the seat and body or platform 1, still it is within my invention to use a body with sides or a body of any other description or to provide a seat upon the body.

One purpose in making the body of the wagon with the converging sides is to permit the user to straddle the body and have his lower limbs free to reach the ground or roadway at pleasure and to obtain full purchase upon the foot-rest or steering-bar.

It will be observed that the mounting of the foot-rest in a notched portion of the journal of the front fork enables me to employ a wooden foot-rest, the thrust upon which is borne by the journal.

What I claim is—

1. A coasting-wagon, comprising essentially a body, a pilot-wheel having a foot-rest by means of which it may be guided or steered, a pair of rear wheels mounted in brackets attached to the body, brake-shoes applied to said brackets, a brake-lever rising vertically through the body, and links connecting the said lever and brake-shoes.

2. A coasting-wagon, having a body with sides converging toward the front, a pilot-wheel pivoted in the front of the body and provided with a steering foot-rest, a pair of rear wheels supported in brackets, brake-shoes applied to said brackets, a brake-lever rising through said body, and links connecting the said lever with the said brake-shoes.

3. In a coasting-wagon, having a guiding-wheel, and a pair of rear wheels, brackets in which the said rear wheels are mounted, brake-shoes longitudinally slotted and permanently applied to said brackets, and means to actuate said brake-shoes.

4. A knockdown coasting-wagon, comprising a body, a pilot-wheel mounted in a fork which is provided with a foot-rest detachable therefrom to permit the detachment of the pilot-wheel, rear wheels detachably mounted in brackets and the latter detachably secured to the body, brake-shoes applied to the brackets, a brake-lever detachably applied to the body, and links detachably connected with the brake-shoes and the lever.

In testimony whereof I have hereunto set my hand this 25th day of January, A. D. 1902.

HARRY E. KEYES.

Witnesses:
J. B. JONES, Jr.,
JAMES M. CAMPBELL.