Nov. 14, 1967 C. E. CORDREY 3,352,570

VELOCIPEDE USABLE AS TRICYCLE OR SCOOTER

Filed Oct. 20, 1965

4 Sheets-Sheet 1

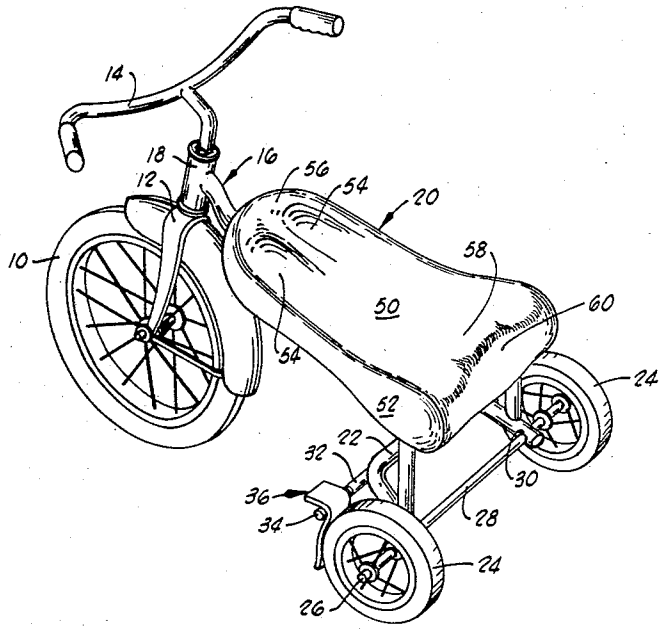


Fig. 1

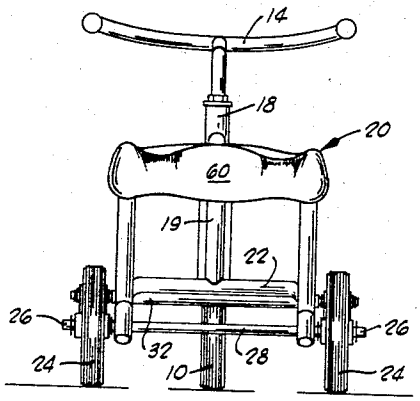


Fig. 2

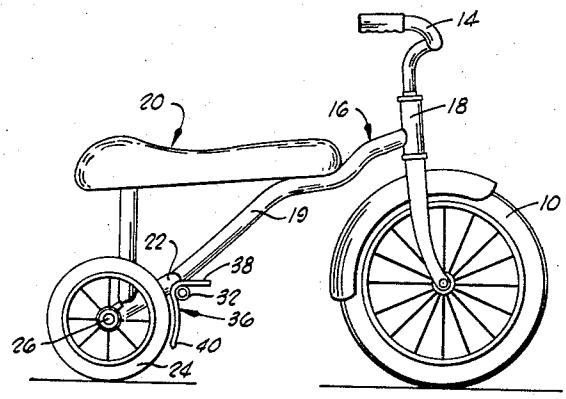


Fig. 3

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4 Sheets-Sheet 2

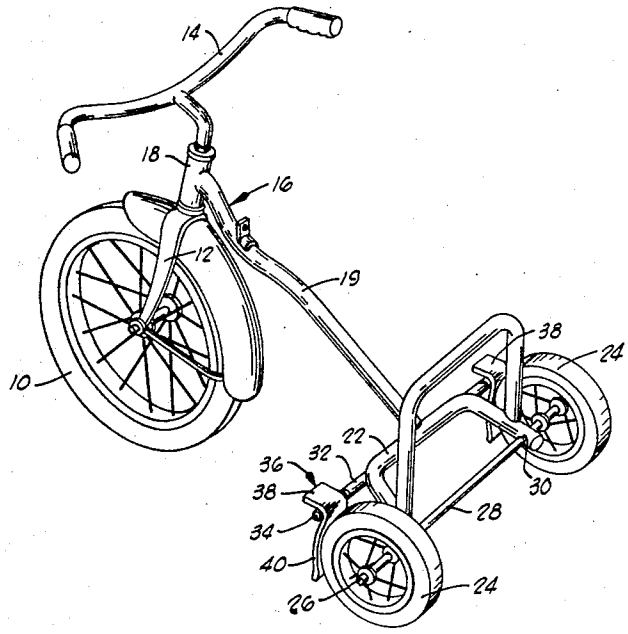


Fig. 4

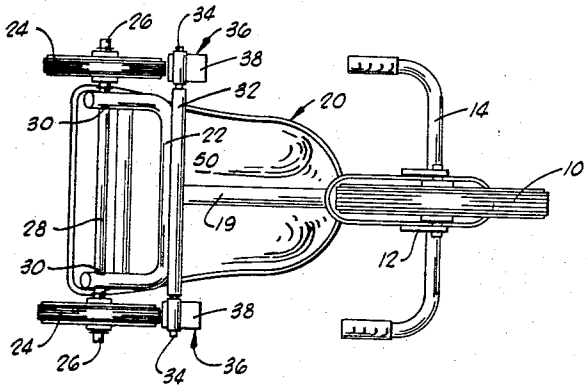


Fig. 5

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VELOCIPEDE USABLE AS TRICYCLE OR SCOOTER

Filed Oct. 20, 1965 4 Sheets-Sheet 3

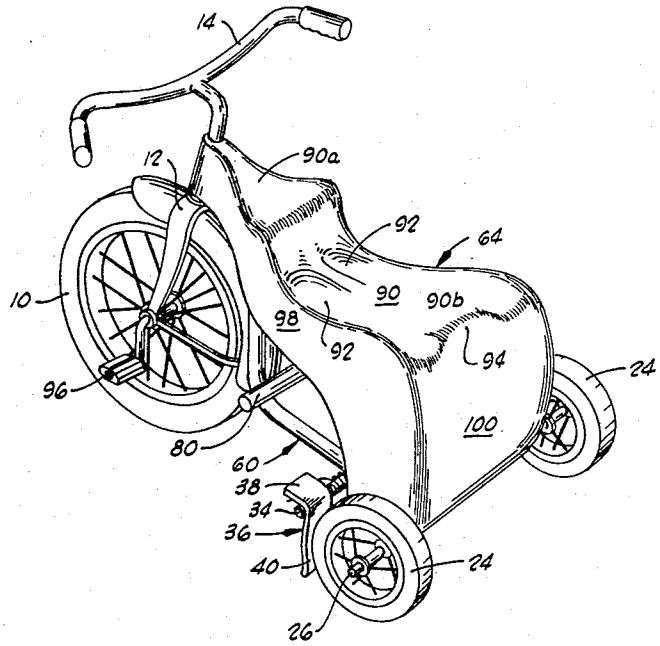


FIG. 6

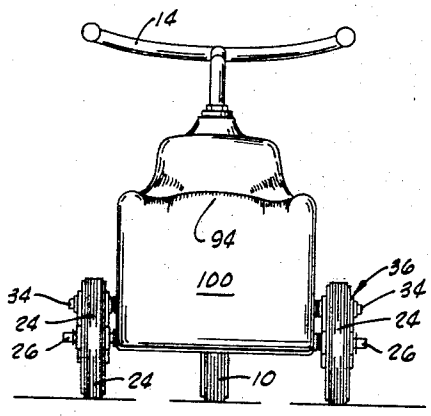


FIG. 7

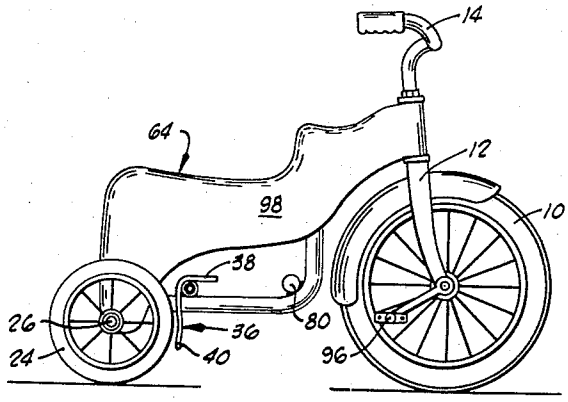


FIG. 8

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VELOCIPEDE USABLE AS TRICYCLE OR SCOOTER

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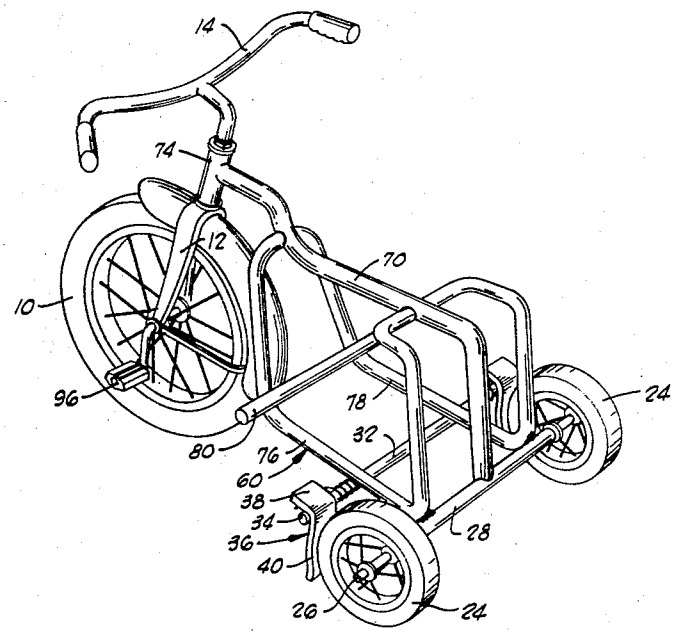


Fig. 9

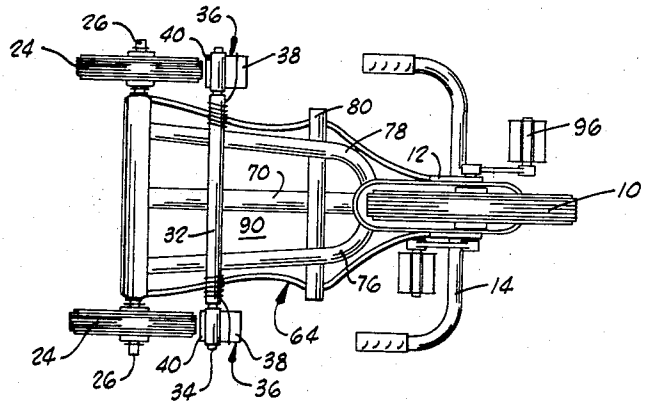


Fig. 10

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3,352,570

VELOCIPEDE USABLE AS TRICYCLE OR SCOOTER

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Filed Oct. 20, 1965, Ser. No. 498,957
8 Claims. (Cl. 280—282)

ABSTRACT OF THE DISCLOSURE

A velocipede having a single front wheel inter-connected with a pair of horizontally spaced rear wheels by a framework. A seat is mounted on the framework and defines a relatively flat buttocks supporting area spaced rearwardly from a pair of side-by-side shin receiving depressions formed in the seat. The velocipede can thus be used as a conventional tricycle or as a scooter. Braking devices are mounted on the framework adjacent the rear wheels.

This invention relates to a velocipede which can be used in a conventional manner as a tricycle or which can be used as a scooter.

For many years, no notable innovations or changes have been made in the basic construction of tricycles, with such children's vehicles being generally constructed with a seat, pedals provided on a large front wheel, a pair of rear wheels, and a frame interconnecting the wheels and supporting the seat. It is also true that there have been very few changes made in the basic constructions of wagons and scooters. In the case of both of these toys, the toy can be propelled by resting one foot or one leg on the toy and pushing the toy forward by placing the other foot in contact with the ground.

The present invention relates to a novel velocipede which can be utilized similarly to a tricycle, or which can be utilized as a scooter. In its basic construction, the velocipede of the invention is a three-wheeled vehicle having a framework interconnecting a large front wheel with two relatively smaller, horizontally spaced rear wheels. The velocipede further is provided with a novel seat positioned thereon and shaped so as to accommodate either the buttocks of the rider of the velocipede when the vehicle is used in the fashion of a tricycle, or, alternately, to accommodate and receive the shin or femur portion of one leg of a user of the velocipede so that it may be pushed along in the manner of a scooter. The novel seat design of the velocipede greatly improves its versatility, and because of the manner of disposition of the seat with respect to the rear wheels, it is very difficult to overturn the velocipede when it is being used as a scooter.

In a preferred embodiment of the invention, the seat is further shaped so that two passengers may ride upon the velocipede when it is being used as a tricycle, or a single passenger may use the velocipede as a scooter or, if desired, even two individuals may simultaneously push the velocipede forward in scooter fashion. Preferred embodiments of the invention further include a foot actuated brake means by which the velocipede may be slowed or braked to a stop when it is being used as a tricycle, such brake means coacting with the rear wheels of the vehicle to provide a positive and effective braking action.

From the foregoing general description of the invention, it will have become apparent that it is a major object of the invention to provide a novel vehicle for use as a toy by children, which vehicle can be used in a variety of ways including use both as a tricycle and as a scooter.

Another object of the invention is to provide a velocipede which can effectively carry two seated passengers

and which is supported on three horizontally spaced wheels.

A further object of the invention is to provide a velocipede having foot brakes which can be used to effectively slow or stop the velocipede.

In addition to the foregoing described objects and advantages, additional objects and advantages will become apparent as the following detailed description of the invention is read in conjunction with the accompanying drawings which illustrate the invention.

In the drawings:

FIGURE 1 is a perspective view of one embodiment of the velocipede.

FIGURE 2 is a rear elevational view of the velocipede depicting its appearance when viewed from the rear.

FIGURE 3 is a side elevation of the velocipede depicted in FIGURES 1 and 2.

FIGURE 4 is a perspective view of the velocipede shown in FIGURE 1 with the seat of the velocipede removed to better illustrate the construction of the framework.

FIGURE 5 is a bottom elevational view showing the velocipede as it appears when viewed from below.

FIGURE 6 is a perspective view of a second embodiment of the velocipede of the invention.

FIGURE 7 is a rear elevational view of the velocipede depicted in FIGURE 6.

FIGURE 8 is a side elevational view of the velocipede illustrated in FIGURES 6 and 7.

FIGURE 9 is a perspective view similar to FIGURE 6 but with the seat of the velocipede removed.

FIGURE 10 is a bottom elevational view showing the modified embodiment of the velocipede as it appears when viewed from below.

Referring initially to FIGURE 1, one embodiment of the velocipede of the invention comprises a relatively large front wheel **10** which is journaled in a bifurcated steering fork **12** which is rigidly secured to handlebars **14** in a manner conventional to tricycle construction. A framework designated generally by reference character **16** carries at its forward end a hub **18** which pivotally journals the gooseneck of the handlebars **14**. The frame **16** includes a curved main support member **19** which extends rearwardly beneath a seat designated generally by reference character **20**, and is welded or otherwise suitably secured at its opposite end to a U-shaped frame bracket **22**. It should be pointed out that all welded connections hereinafter described can also be made detachable connections so that the velocipede can be disassembled and packaged in a relatively flat overall state for shipment.

A pair of relatively small rear wheels **24** are rotatably journaled on opposite ends of an axle **26**. The axle **26** extends through a tubular axle housing **28** which passes through apertures **30** formed in the ends of the U-shaped frame bracket **22**. Welded or otherwise suitably secured to the bight or web portion of the frame bracket **22** and extending transversely across the frame **16** and generally parallel to the axle **26** is a crossbar **32**. The crossbar **32** projects beyond the opposite ends of the web portion of the frame bracket **22** and terminates with its opposite ends spaced slightly inwardly with respect to the rear wheels **24**. The crossbar **32** is preferably of hollow tubular construction and slidingly receives a brake rod **34** which is longer than the crossbar **32** and projects from opposite ends thereof.

At each of its opposite ends, the brake rod **34** has welded or otherwise suitably secured thereto a pair of foot brake plates **36**. The foot brake plates **36** are generally L-shaped in configuration and have a substantially horizontally extending pressure surface **38** and a vertically extending braking surface **40**. It will be noted that

the braking surface **40** of each of the foot brake plates **36** extends to a position immediately adjacent the surface of the respective rear wheel **24** so that when the pressure surface **38** is depressed downwardly by the foot of a rider, the braking surface **40** is pivotally biased into frictional engagement with the respective rear wheels **24** of the velocipede. In order to assure that the brakes of the vehicle are not applied except by the positive action of depressing the pressure surface **38**, a helical spring **42** is provided around opposite ends of the crossbars **32** and includes a horizontally projecting portion which bears against the under side of the pressure surface and resists downward depression of the pressure surface.

The seat **20** of the velocipede is an important feature of the present invention and its configuration is best illustrated in FIGURES 1 and 2. The seat is substantially larger than that which is normally employed on tricycles, and may be described as having an upwardly facing upper surface **50** and a downwardly depending skirt **52** which is secured to the peripheral edge of the upper surface **50** and extends downwardly therefrom at substantially a right angle. The upper surface **50** of the seat **20** includes a pair of substantially parallel shin receiving depressions **54** which extend from the rear of the seat to points closely adjacent the forward end of the seat. The shin receiving depressions **54** are each elongated, substantially concave slots which are adapted by their shape to receive and support the shin or femur portion of a child's leg so that the child may use the velocipede as a scooter. It will also be noted that by virtue of the provision of the dual shin receiving depressions **54**, two children can use the velocipede as a scooter simultaneously. It will further be noted that though the shin receiving depressions **54** are open at the rear thereof, they are closed at their forward ends by a rounded ridge **56** disposed at the forward end of the seat **20**.

Adjacent its rear end, the seat **20** is shaped to provide a relatively flat seating surface **58** which is positioned just forward of a raised cantle **60**. The cantle **60** is disposed centrally on the seat **20** so as not to interfere with or block the shin receiving depressions **54**. The seat **20** is further shaped so that the rearward extensions of the ridge **56** which define the sides of the shin receiving depressions **54** are reduced in height immediately adjacent the seating surface **58** to permit the thighs of a rider seated on the seating surface to extend outwardly and forwardly from the seat without being cut or without the rider feeling uncomfortable. Although not depicted in FIGURES 1–3, it will be understood that the large front wheel **10** of the velocipede can be provided with pedals to permit it to be propelled by one seated thereon although in this embodiment of the invention, it is contemplated that more frequently it will be desired merely to coast on the vehicle when the rider is in a seated position, or alternatively, to use the vehicle as a scooter. In either case, pedals of the type described will not be required.

A modified embodiment of the invention is illustrated in FIGURES 6–10. In these figures, identical reference numerals have been used to identify parts which are identical to elements which appear in the embodiment illustrated in FIGURES 1–5, and which have been previously described herein. The major difference which exists between the construction of the modified embodiment shown in FIGURES 6–10, and the embodiment hereinbefore described and illustrated in FIGURES 1–5 is in the seat and frame construction of the two embodiments. The frame which is utilized in the modified embodiment is designated generally by reference character **60** and includes a main central support member **70**. As illustrated in FIGURE 4, the central support member **70** has a contour which follows the surface of a seat **64** and provides support for the seat. The central support member **70** is provided with a hub **74** at the forward end thereof which pivotally journals the gooseneck of the handlebars **14**. At its rear end, the central support member **70** is welded or otherwise suitably secured to the tubular axle housing **28**.

Welded or otherwise suitably secured to the central support member **70** are a pair of lateral support members **76** and **78**. As illustrated in FIGURE 9, the lateral support members **76** and **78** are curved or arcuate in configuration, and are connected at their front ends to the central support member **70** at a point spaced rearwardly from the hub **74**. The lateral support members **76** and **78** extend laterally outwardly from their points of connection to the central support member **70**, and then extend downwardly and divergently from each other to points spaced upwardly from the common plane occupied by the lower peripheral edges of the front wheel **10** and the rear wheels **24**. In other words, the lateral support members **76** and **78** extend downwardly to points spaced above the ground when the vehicle is resting thereon. From these points, the lateral support members **76** and **78** are bent through approximately right angles and then extend rearwardly to the tubular axle housing **28** at the rear of the velocipede. Here the lateral support members are welded or otherwise secured to the rear axle housing **28** and are then bent upwardly through an angle of approximately 90° in the manner illustrated in FIGURE 4. The lateral support members **76** and **78** are then bent forwardly and are finally curved in and joined to the central support member **70** so as to provide support for the rear portion of the seat **64**. A footrest bar **80** is secured to the lateral support members **76** and **78** at the points where these members undergo a 90° bend and extend rearwardly as hereinbefore described.

The seat **64** of the modified embodiment of the velocipede illustrated in FIGURES 6–10 is of a novel configuration which permits the velocipede of the invention to function in a novel and useful manner. These functions may be generally described before referring specifically to the seat configuration as permitting two passengers to ride simultaneously upon the velocipede in a seated position, or permitting the velocipede to be used by either one or two persons as a scooter in which the shin of the operator is rested upon the seat and the vehicle is propelled along the ground using the other leg.

In referring to FIGURES 1, 2 and 3, it will be perceived that the seat **64** of the velocipede includes an upwardly facing upper surface or top **90** which may be described as having a forward area **90*a*** and a rearward area **90*b***. The rearward area **90*b*** is provided with a pair of substantially parallel fore-and-aft extending shin receiving depressions **92** which are similar to those which have been hereinbefore described in referring to the embodiment depicted in FIGURES 1–5. A cantle **94** is provided at the rear edge of the seat **64** and is just to the rear of a relatively flat seating area which can be used by one person to sit upon the velocipede while positioning the feet on the footrest bar **80**. The forward portion **90*a*** of the upper surface **90** is shaped as a second seating area and permits a second passenger to be seated on the velocipede, and to extend the legs to pedals **96** provided on the front wheel **10** of the velocipede in conventional tricycle fashion. It will be further noted in referring to FIGURE 1 that the seat **64** is provided with a pair of downwardly extending side skirts **98** which are secured to and extend downwardly from a peripheral edge of the seat **64**. A rear skirt **100** is also provided on the seat **64** and extends downwardly from the upwardly facing top **90** to the rear axle housing **28**. It will be noticed that in the illustrated construction, the skirt **100** is curved or bent inwardly and around the axle housing **28** so as to secure the seat **64** to the axle housing. Of course, other methods of securement may also be employed, such as welding. If desired, the skirt **100** can even be omitted from the construction since adequate support and points of securement for the seat **64** are provided by the framework **60**.

From the foregoing description of the invention, it will be perceived that the novel velocipede herein described is

versatile in the forms of amusement which it affords to children using the vehicle, that it is sturdy in construction, and is characterized by a long and trouble-free operating life.

Although certain specific embodiments of the invention have been illustrated in order to provide a guide to those skilled in the art as to the construction and manufacture of the invention, it is to be clearly understood that certain modifications and innovations can be made in the invention without departure from the basic principles which underlie the invention. Insofar as such modifications do not depart from these basic principles, they are deemed to be circumscribed by the spirit and scope of the invention except as the same may be necessarily limited by the appended claims or reasonable equivalents thereof.

What is claimed is:

1. A velocipede comprising:

a front wheel;

a pair of horizontally spaced rear wheels;

a frame interconnecting the front wheel and the rear wheels; and

a seat supported on said frame and having a pair of side-by-side shin receiving depression therein, and further having a wide, relatively flat buttocks-supporting portion adjacent the edge thereof nearest said rear wheels and to the rear of said shin receiving depressions whereby a rider may sit upon said seat, or alternately, may kneel upon said seat to use the velocipede as a scooter said shin receiving depressions being disposed on opposite sides of the front to rear center line of said interconnecting frame whereby two persons may coast on said velocipede simultaneously by placing a shin in one of said depressions so that the weight of the two persons are balanced on the opposite sides of the front to rear axis of said frame.

2. A velocipede as claimed in claim 1 wherein said seat further includes a relatively flat seating area positioned ahead of said shin receiving depressions and between said front wheel and said depressions so that two passengers can simultaneously sit on said seat on opposite sides of said shin receiving depressions.

3. A velocipede as claimed in claim 2 and further characterized to include a horizontal footrest bar secured to said frame and extending transversely thereacross, said footrest bar being spaced vertically below the forward ends of said shin receiving depressions.

4. A velocipede as claimed in claim 1 and further characterized to include brake means mounted on said framework and extending into juxtaposition to one of said wheels.

5. A velocipede as claimed in claim 1 and further characterized to include:

a crossbar extending transversely across said frame and secured thereto; and

foot brakes pivotally connected to the opposite ends of said crossbar and aligned with said rear wheels.

6. A velocipede as claimed in claim 5 and further characterized to include springs mounted on said crossbar and resiliently biasing said foot brakes out of contact with said rear wheels.

7. A velocipede as claimed in claim 1 wherein said rear wheels are secured to opposite ends of a horizontally extending axle and wherein said frame is connected at one of its ends to said axle.

8. A velocipede as claimed in claim 1 and further characterized to include:

a crossbar extending transversely across said frame and secured thereto; and

a foot brake pivotally connected to said cross bar and aligned with one of said rear wheels and in juxtaposition thereto for braking cooperation with said one wheel.

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