United States Patent

[11] **3,549,165**

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[54] **CART**
12 Claims, 4 Drawing Figs.

[52] **U.S. Cl.** **280/76,** 296/31
[51] **Int. Cl.** **B62c 1/08**
[50] **Field of Search** ..... 280/63-—77, 47.25; 296/31, 31P; D14/3(4.2)

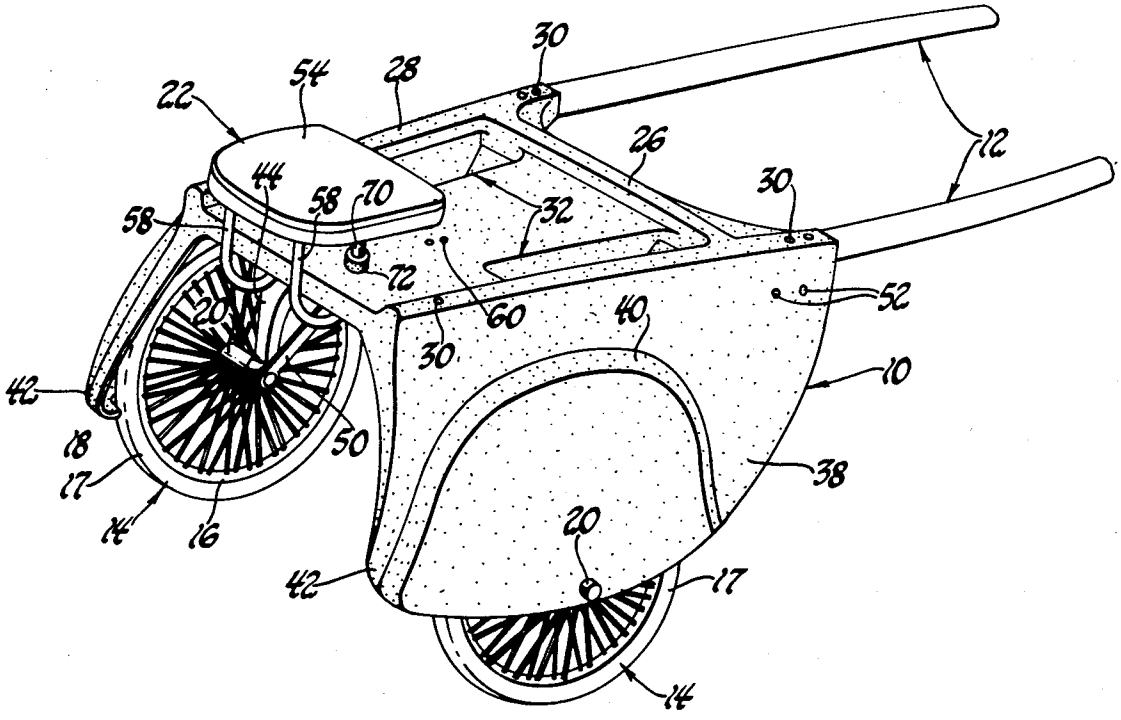
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ABSTRACT: An improvement in jogging carts of the type used to exercise and train standardbred horses and including a shell supported upon and journaling spaced wheels. The shell is provided with enclosed wells to receive the feet of the driver and to protect the driver from mud, dirt and the like thrown up from the track. A seat assembly is resiliently supported on the shell and may include adjusting means to permit longitudinal movement of the seat relative to the wells, thus adapting for drivers of different physical dimensions. The shell receives spaced shafts adapted to be secured in the harness carried by the horse.



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SHEET 1 OF 2

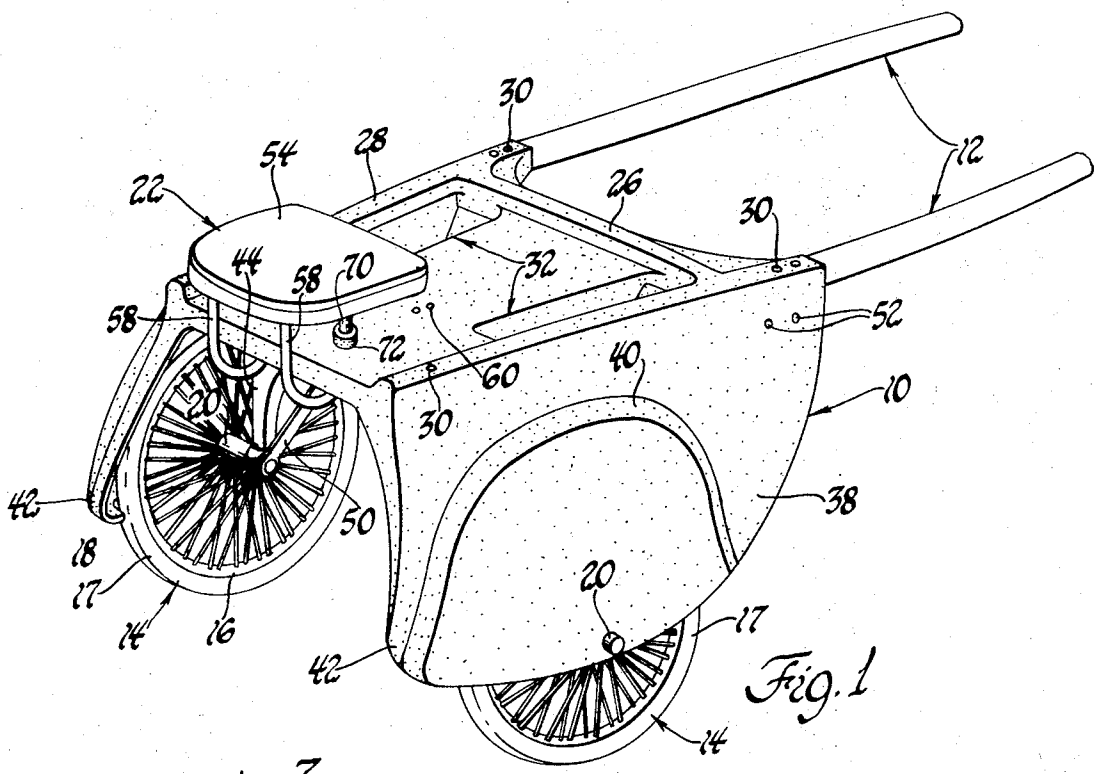


Fig. 1

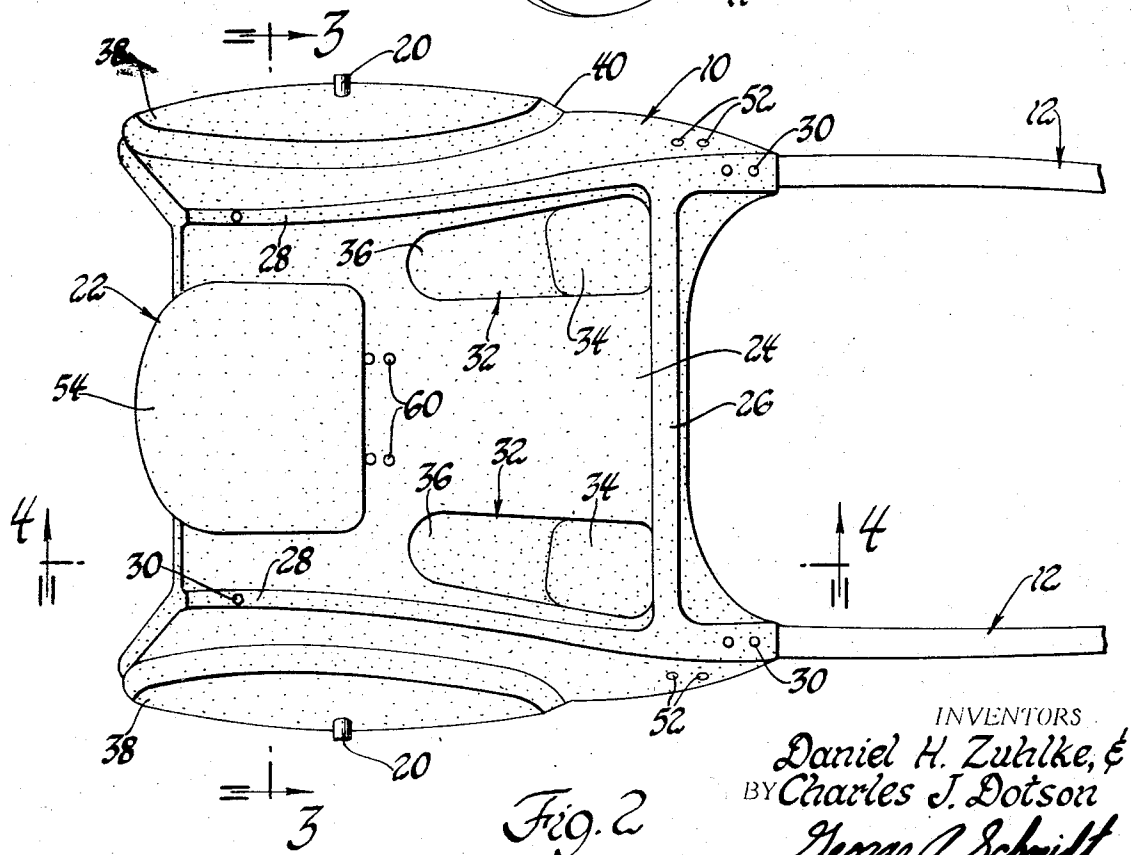


Fig. 2

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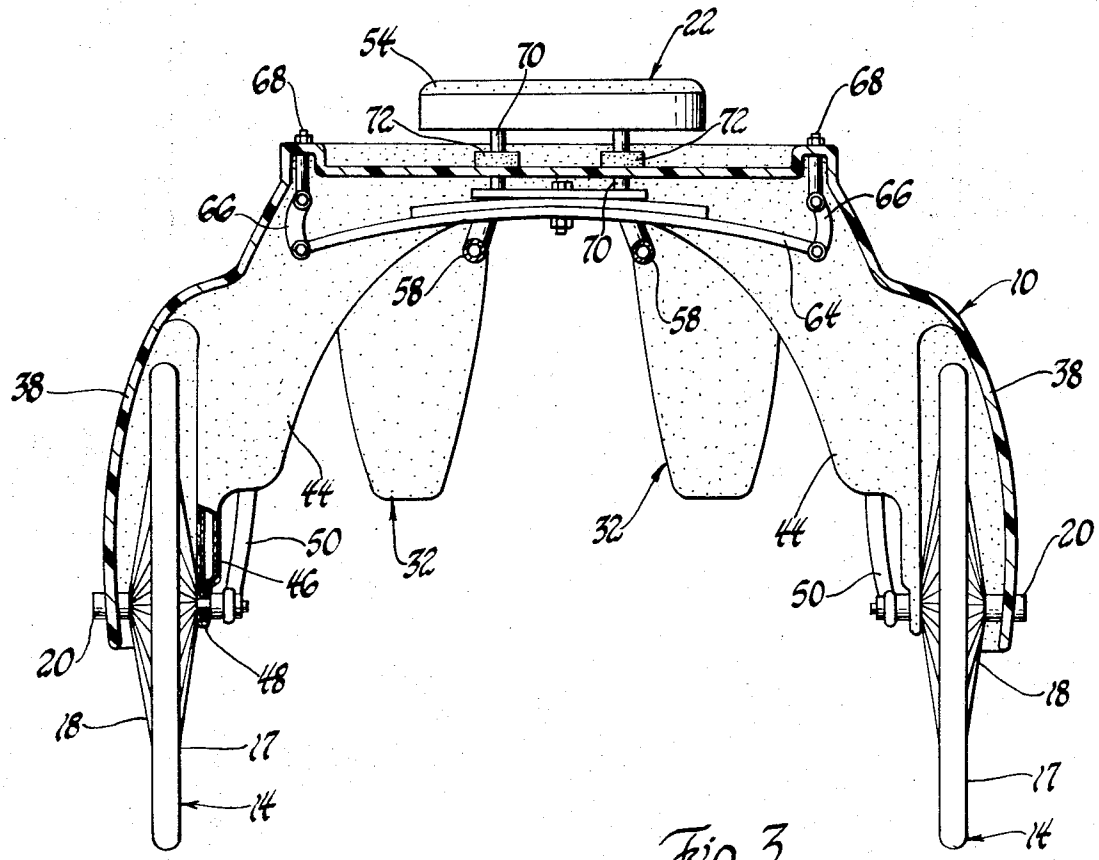


Fig. 3

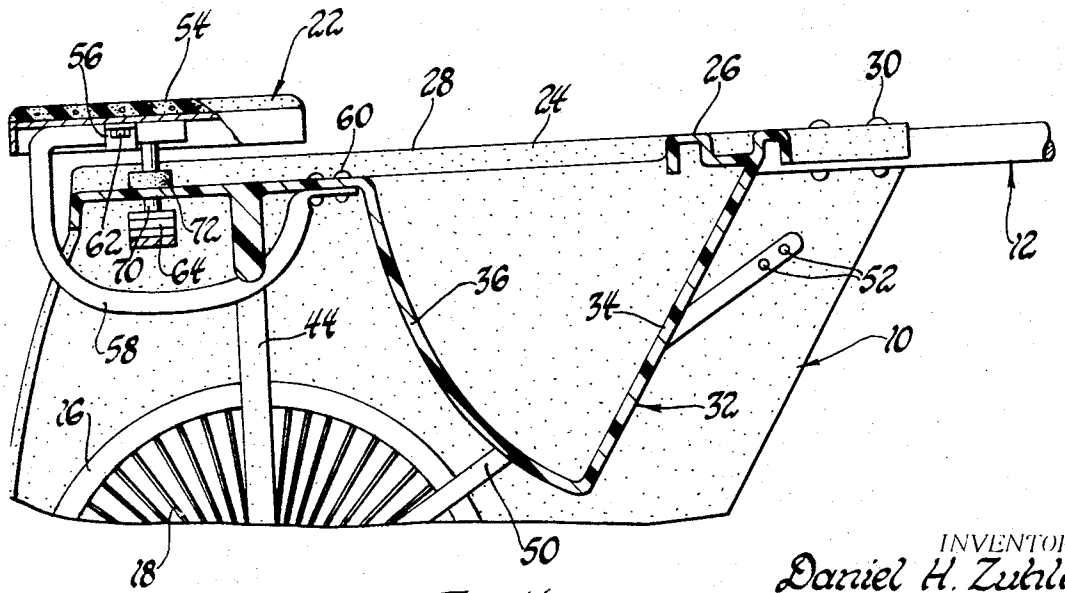


Fig. 4

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CART

This invention relates to horse-drawn carts, and more particularly to the type of cart used in the training and exercising of standardbred horses.

In the art of the standardbred horse racing, where trotters and pacers are harnessed to pull a lightweight sulky and driver, it is the common practice to train and exercise such horses with a jogging cart. A jogging cart is generally of heavier construction than the racing sulky for various reasons, such as the hard use to which it is put, the amount of such use and the benefits resulting from training the horse with a cart heavier than the racing sulky. Jogging carts are usually of open construction, having a framework to support the seat assembly for the driver and to support the shafts that extend to the harness on the horse.

Since the horse must be trained for all sorts and conditions of racing tracks, and since the training and exercise program cannot be made dependent on the weather conditions, it is often the case that the exercise period takes place during inclement weather and/or when the track is muddy or wet. This leads to great discomfort to the driver, as the horses' hooves and the cart wheels tend to throw mud, water and dirt directly toward and on the driver.

The open construction of the generally available jogging cart provides little protection for the driver from such adverse conditions. Numerous devices have been used in the past to provide some degree of protection, ranging from strategically located shields or flaps to weatherproof materials wrapped about the feet and legs of the driver. None of these devices are suitable, as they are constantly in the way, distract the horse and add wind resistance to the cart. The result is a complicated and cumbersome affair that is undesirable to most drivers and trainers.

The device in which this invention is embodied comprises, generally, a jogging cart that includes a properly formed shell having a pair of spaced wells formed therein, such wells being completely enclosed to receive and protect the feet and legs of the driver. The shell receives the axles of the wheels and is supported therefrom. The harness shafts are secured in the shell and a suitable seat assembly is provided that is both resiliently mounted and adjustable relative to the leg wells. The shell may be conveniently manufactured of a moldable plastic material having suitable strength and rigidity for the purpose.

A jogging cart so constructed has great advantages over presently available carts. The moldable shell leads to great versatility in design, for purposes of weight control and wind resistance, and at the same time makes manufacture and assembly extremely economical and efficient. The enclosed construction protects the driver from inclement weather and adverse track conditions and is without hindrance when the weather and track conditions are more desirable. The adjustable seat assembly permits drivers of different physical dimensions to use the cart without undue time and effort in adjustment. The rigid construction, devoid of flaps or the like, is not distracting to the horse or detrimental to his training program. The overall result is an efficient, esthetically desirable and economical cart construction, providing a great degree of protection to the driver.

These and other advantages will become more apparent from the following description, used to illustrate a preferred embodiment of the invention when taken with the accompanying drawings in which:

FIG. 1 is a perspective view of a jogging cart embodying the invention;

FIG. 2 is a plan view of the jogging cart illustrated in FIG. 1;

FIG. 3 is a transverse cross-sectional view of the jogging cart illustrated in FIG. 2, taken substantially along the line 3–3 of FIG. 2 and looking in the direction of the arrows; and

FIG. 4 is a longitudinal cross-sectional view of the jogging cart illustrated in FIG. 2, taken substantially along the line 4–4 of FIG. 2 and looking in the direction of the arrows.

Referring more particularly to the drawings, where the various figures are for the purpose of illustrating a preferred embodiment of the invention only and not for the purpose of limiting same, FIG. 1 best shows the overall construction of the jogging cart. With reference to FIG. 1, the cart is shown to include a shell, indicated generally by the numeral 10 and which will be hereinafter more particularly described. A pair of spaced shafts, indicated generally by the numeral 12, are adapted to be secured to the harness and extend rearwardly to securement in the shell 10. Spaced track wheels, indicated generally by the numeral 14, are of any suitable construction and are shown to include rims 16, on which are mounted tires 17, with spokes 18 connecting the rims 16 to central axles 20. Axles 20 are journaled in the shell 10, as will become hereinafter more apparent. Mounted over the shell 10 is a seat assembly 22, which will also be hereinafter more particularly described.

Shell 10 may be conveniently formed of a plastic material suitable for molding in the desired shape, although the material is not a critical part of the present invention. From the standpoint of ease of manufacture, such molded plastic shell would be most desirable. Shell 10 includes a generally planar upper member 24 having strengthening ribs 26 and 28 formed therein for rigidity, should such be needed. Ribs 28 serve as convenient channels to receive the rearward ends of the shafts 12, the shafts being secured in the shell 10 in any suitable manner, as by nut and bolt assemblies 30.

In the forward portion of the upper member 24 of the shell 10 are a pair of spaced and fully enclosed wells, indicated generally by the numeral 32. Such wells 32 are formed with downwardly and rearwardly extending surfaces 34 and upwardly and rearwardly extending surfaces 36. Surfaces 34 for convenient places for the driver to place his feet, and the complete enclosure of the wells 32 serves to protect the driver from anything thrown rearwardly by the horses' hooves. The design of the wells 32 may be planned from the standpoint of wind resistance and the like, to cause as little interference with the operation of the cart as possible.

Extending downwardly from the side edges of the upper surface 24 of the shell 10 are side skirts 38 which cover a portion of the wheels 14. Skirts 38 are so formed, as at 40, to receive the wheels 14 without any interference. The spaced wheel axles 20 are journaled in the skirts 38 and extend inwardly therefrom. The rearward extremities 42 of the side skirts 38 are so formed that the cart may be stored in a generally upright position; that is, with the shafts 12 extending angularly upwardly, as is the common practice.

In order to support the inner ends of the axles 20, the shell 10 is provided with a transverse rib 44 in the underside thereof, rib 44 extending arcuately across the shell 10 from axle to axle. Embedded in each side of the rib 44 is a tubular metal member 46, properly formed at the lower end 48 thereof to receive and journal the inner ends of the axles 20. Members 46 are completely embedded, enclosed and supported by the material of the shell 10 to become an integral part thereof.

To complete the support for the wheels 14, brace members 50 are provided. Members 50 extend forwardly and upwardly from the inner ends of the axles 20 to connection to the shell 10 in any suitable manner, as by nut and bolt assemblies 52. Thus, the wheels 14 are properly mounted in the shell 10, the tubular members 46 and the forward brace members 50.

Mounted generally rearwardly of the upper member 24 of the shell 10 is the seat assembly 22. The seat assembly 22 includes a seat cushion member 54, of any suitable construction, mounted by means of brackets 56 to support arms 58. Arms 58 extend rearwardly and around the trailing edge of the upper member 24 and are secured to the underside of the shell 10 in any suitable manner, as by nut and bolt assemblies 60. Brackets 56 are clamped around the arms 58 and secured to the underside of the cushion member 54 by bolts or the like 62. It will be apparent from viewing FIG. 4 that the seat cushion member 54 may be adjusted forwardly and rearwardly

by the positioning of the brackets **62** on the arms **58**, thus changing the relative position of the seat cushion member **54** relative to the foot wells **32**.

Secured in the underside of the shell **10** and transversally thereof, is a leaf spring **64**. Swing shackles **66** at opposite ends of the spring **64** are secured in the shell **10**, as by nut and bolt assemblies **68**, the spring **64** being properly positioned to be in contact with the lower ends of rods **70** depending from the seat cushion member **54**. Rods **70** extend through suitable apertures and bushings **72** in the upper member **24** of the shell **10**. It will be apparent that the seat cushion member **54** is thus resiliently supported for vertical movement, subject, of course, to the resilience of the support arms **58**.

Thus, a jogging cart is provided that is extremely versatile in its design, may be efficiently and economically manufactured and produced, and provides the driver with maximum protection from objects thrown up from the track by either the horse or the wheels. The cart may be esthetically designed to be pleasing to the eye, and at the same time may be properly designed from the standpoint of weight, wind resistance and the like. The adjustability of the seat assembly allows the cart to be used by different drivers, regardless of differences in their physical dimensions.

I claim:

1. A horse drawn cart comprising:
a pair of spaced wheels;
a unitary shell mounted on said wheels and having separated and enclosed foot wells formed therein adapted to receive and protect the feet of the occupant of said cart;
spring means secured in said shell;
seat means mounted on said shell and supported on said spring means; and
a pair of shafts mounted in said shell and extending forwardly therefrom for connection to the harness carried by said horse.

2. The cart set forth in claim **1** wherein said shell is formed of a plastic material.

3. The cart set forth in claim **1** wherein said shell includes side skirts covering the upper portions of said wheels.

4. The cart set forth in claim **3** wherein said wheels are journaled in said side skirts.

5. The cart set forth in claim **4** and further including tubular members receiving said wheels and supporting said wheels with said side skirts, said tubular members being secured in said shell.

6. The cart set forth in claim **1** wherein said spring means includes a leaf spring extending laterally of said shell and therebeneath.

7. The cart set forth in claim **6** wherein said seat means includes a seat portion, a bracket member secured to said seat portion and the undersurface of said shell, a support post secured at one end to said seat portion and extending through said shell and engaging said leaf spring to resiliently support said seat portion.

8. The cart set forth in claim **7** wherein said seat portion is longitudinally adjustable on said bracket member relative to said wells.

9. A horse-drawn cart comprising;
a pair of spaced wheels;
a unitary shell mounted on said wheels and having a generally planar and generally imperforate upper member having laterally spaced and enclosed wells formed therein and adapted to receive and protect the feet of the occupant of said cart;
said shell having spaced side skirts depending from said upper member and being adapted to enclose a portion of said wheels, said side skirts supporting said upper member above said wheels; and
means in said shell for receiving and retaining laterally spaced shafts adapted to be secured to said horse.

10. The cart set forth in claim **9**, wherein said shell is made of a plastic material.

11. The cart set forth in claim **9**, and further including means in said shell for receiving and supporting a seat rearwardly of said wells.

12. The cart set forth in claim **11**, wherein said last-named means includes a spring member secured to the undersurface of said upper member to receive said seat and resiliently support said seat on said shell.