

B. E. JOHN.
WAGON.

APPLICATION FILED NOV. 4, 1916. RENEWED JULY 1, 1919.

1,371,246.

Patented Mar. 15, 1921.

2 SHEETS—SHEET 1.

Fig. 1.

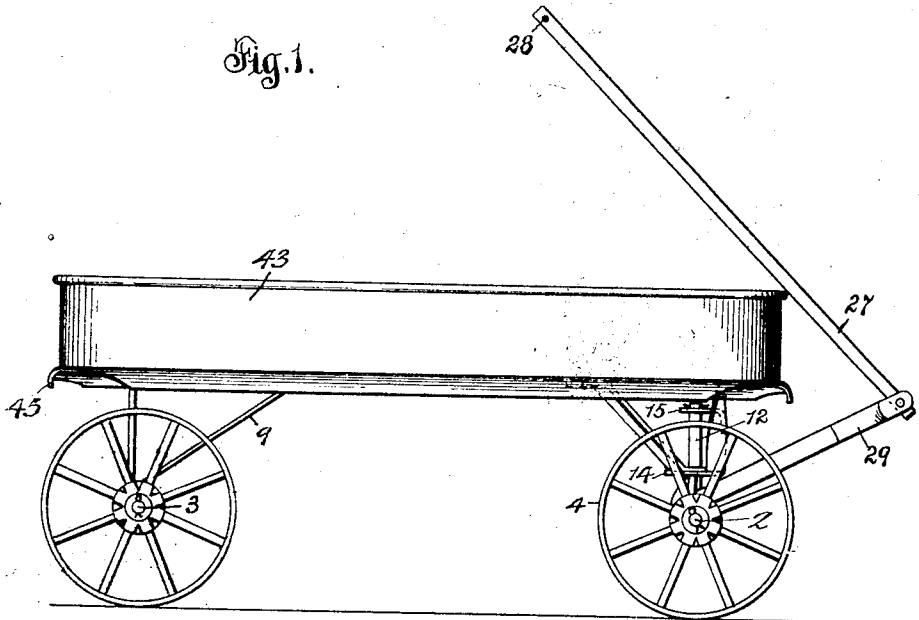
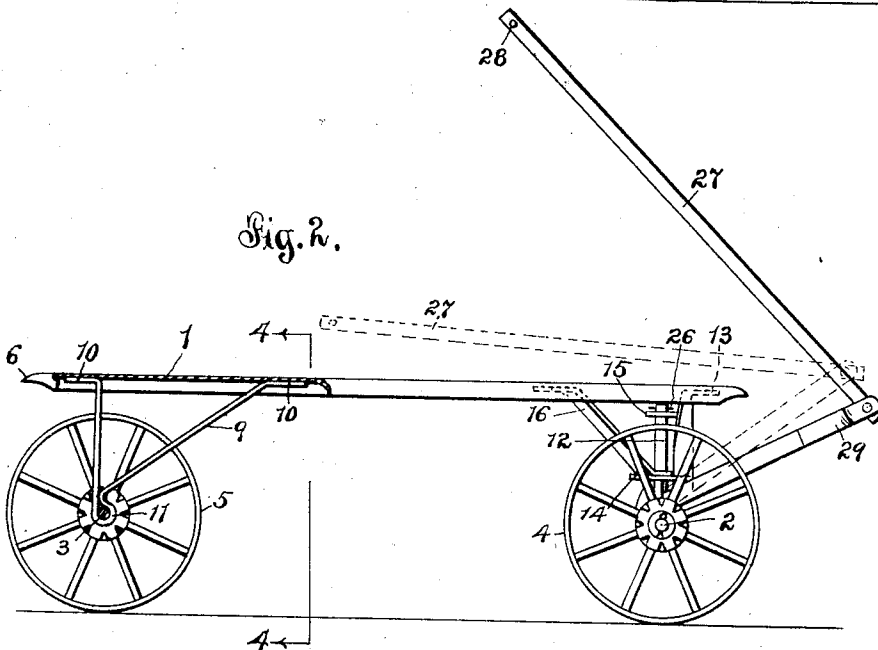


Fig. 2.



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2 SHEETS—SHEET 2.

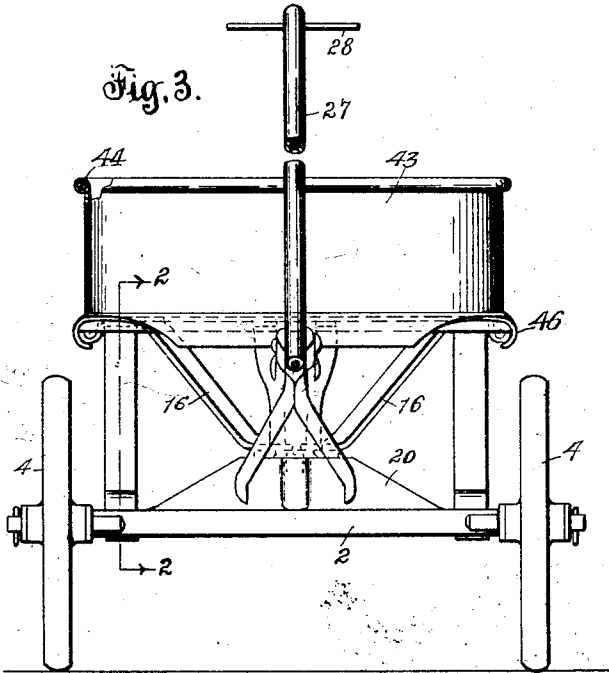


Fig. 4.

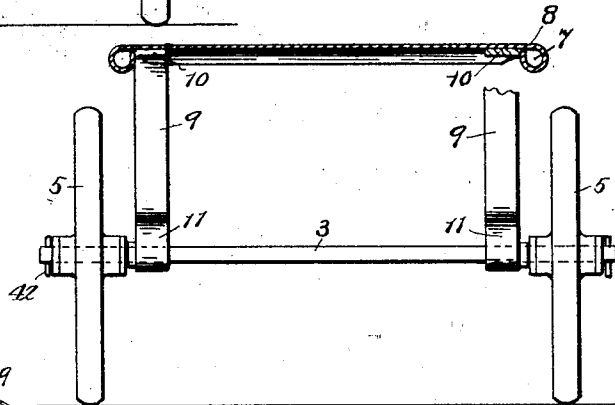


Fig. 5.

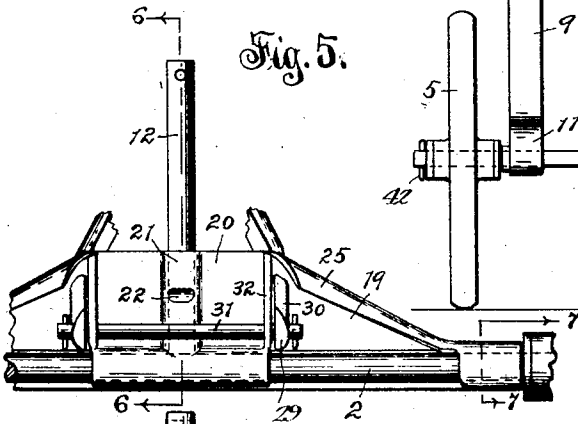


Fig. 6.

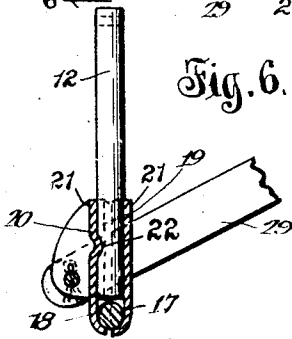


Fig. 7.



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UNITED STATES PATENT OFFICE.

BENJAMIN EVAN JOHN, OF CLEVELAND, OHIO, ASSIGNOR TO THE JOHN'S MACHINE & STAMPING WORKS COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

WAGON.

1,371,246.

Specification of Letters Patent.

Patented Mar. 15, 1921.

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To all whom it may concern:

Be it known that I, BENJAMIN E. JOHN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Wagons, of which the following is a specification.

This invention relates to wagons and more particularly to toy wagons of a size suitable for use by children.

The object of the invention is to provide an improved toy metal wagon which is very strong and durable and will successfully withstand the rough usage ordinarily given to such wagons by children, which has all of its edges curved to prevent exposure of sharp edges and the side edges rolled so as to provide hand holds.

Further objects of the invention are in part obvious and in part will appear more in detail hereinafter.

In the drawings, Figure 1 represents a side elevation of one form of wagon embodying the invention; Fig. 2 is a similar view, partly in section on the line 2—2, Fig. 3, and showing the wagon modified into coaster form; Fig. 3 is a front view, on a larger scale, of the wagon shown in Fig. 1; Fig. 4 is a cross section on the line 4—4, Fig. 2, looking in the direction of the arrows; Fig. 5 is a detail rear elevation, on a larger scale, of the front axle and king pin structure; Fig. 6 is a sectional elevation on the line 6—6, Fig. 5; and Fig. 7 is a similar section on the line 7—7, Fig. 5.

The wagon shown in the drawings, in its simplest form, comprises a floor or platform 1 supported upon front and rear axles 2 and 3 to which are connected the front wheels 4 and rear wheels 5. The platform 1 is a sheet of metal having its front and rear edges bent downwardly on a gradual curve, as at 6, so as to leave no sharp edges, while its two longitudinal side edges are bent or rolled into substantially tubular form as shown at 7, Fig. 4, the inner edge portions of the rolled metal abutting the under surface of the sheet and lying in planes perpendicular thereto, as at 8. This arrangement forms two smooth rod-like hand grips extending along both sides of the platform and also thoroughly reinforces said platform against bending strains.

Beneath the rear portion of the platform, one on each side, are two brackets 9 having

their end portions suitably secured, as by spot welding at the points 10, to the under surface of the platform, the intermediate portions of said brackets being bent to form loops or eyes 11 to receive the rear axle. These brackets are made of strong strap metal not likely to become bent or distorted and serve as rigid braces for the back of the vehicle.

At the front of the vehicle is located a bracket or support for the king pin 12 hereafter referred to. Said bracket comprises a wide sheet metal member having its upper end portion bent forwardly to form a flange 13 secured by spot welding to the platform 1, while its lower end portion is bent rearwardly and trimmed to substantially circular form to form the fifth wheel 14. An intermediate portion of the bracket is punched out from its center and bent down to form the horizontal upper king pin bearing 15. Two metal straps 16 are also secured by spot welding to the fifth wheel 14 and the under surface of the platform 1, said straps extending rearwardly and outwardly from the king pin, as shown by comparison of Figs. 2 and 3. This triangular three point support is very rigid and avoids transmission of bending strain to the body, as is the case when the straps 16 are attached to the body at the sides or forwardly of the king pin.

The front axle 2 is a rod or shaft held solidly between the bent lips 17 and 18 of front and rear plates 19 and 20. Said plates also have vertically channeled or bent portions 21 forming a cylindrical cavity to receive the king pin 12, which may also be provided with a depression 22 into which a portion of the metal of one of said plates, such as the rear plate 20, is forced, to prevent turning of the king pin in its support. The two plates 19 and 20 are assembled together on the axle and king pin and secured by spot welding at one or several points, as desired. Front plate 19 extends outwardly toward the ends of the axle and entirely surrounds the same at the ends of said plate, as shown in Fig. 7. The axle may also be flattened on one or two sides, as shown at 24, and the plate metal pressed against the axle to prevent it from turning therein. The upper edges of the front plate 19 are also bent or rolled over, as shown at 25, to form substantially two diagonal reinforcing ribs.

The king pin 12 is journaled in alined openings in the fifth wheel 14 and upper bearing plate 15, as shown in Fig. 2, and is held from dropping out by a cotter pin 26 passing through a transverse opening in the upper end of the king pin. The fifth wheel 14 rests directly upon the upper edges of the two plates 19 and 20, which are cut off square as shown in Fig. 5, and form an efficient support for the vehicle body.

The wagon tongue 27 is a metal tube or pipe having a handle 28 at its outer end and at its inner end being jointed to the hounds 29, which are metal rods welded to each other near the tongue. The rear portions of the hounds diverge and pass through slots or openings 30 in the front plate 19, as shown in Fig. 5. The hounds are secured to the front axle structure by a cross pin 31 passing through alined openings in the two hounds and ears 32 extending rearwardly from the rear plate, the pin 31 being held from escaping by cotter pins, as shown in Fig. 5.

The wagon so far described serves as an efficient coaster, as shown in Fig. 2. Its platform or body is essentially flat with smooth hand grips along its edges, so that the boy may lie upon the flat wagon platform. The holes 30 through which the hounds 29 extend, are elongated slightly in the vertical direction. Consequently said hounds have slight vertical motion from the position shown in full lines to that shown in dotted lines Fig. 2, and the tongue 27 may be drawn down close to the body and serve as a steering member.

The wagon is also provided with a box body shown applied thereto in Figs. 1 and

3. This box body consists of a sheet metal wall 43 having its upper edge reinforced by rolling the metal around a strengthening rod 44. The lower edge of the box body, at its ends, is bent downwardly on a gradual curve, as at 45, to pass the corresponding end portions of the platform. The side lower edges of the box body are bent outwardly, downwardly and inwardly into semi-cylindrical form, as shown at 46, Fig. 3. With this arrangement the channel at one lower side edge of the box body can be hooked around the roll of the platform and by pulling outwardly upon the opposite side wall of the box and pressing downwardly can be snapped or sprung past the roll of the platform into gripping relation therewith, as in Fig. 3. This is a quick attachable and detachable connection which can be manipulated by the boy, which has no loose parts except the box body itself, which is so large as not to be easily lost.

The wagon described is very strong and rigid, can be readily manipulated by the average boy, is not liable to cause injury to the hands or clothing and can be made and sold at low cost. Other advantages will be apparent to those skilled in the art.

What I claim is:—

A wagon, comprising rear wheels, front wheels, and a sheet metal platform mounted upon said wheels, the side edges of said platform being bent into tubular form to form hand grips extending lengthwise of said platform.

In testimony whereof I affix my signature.

BENJAMIN EVAN JOHN.