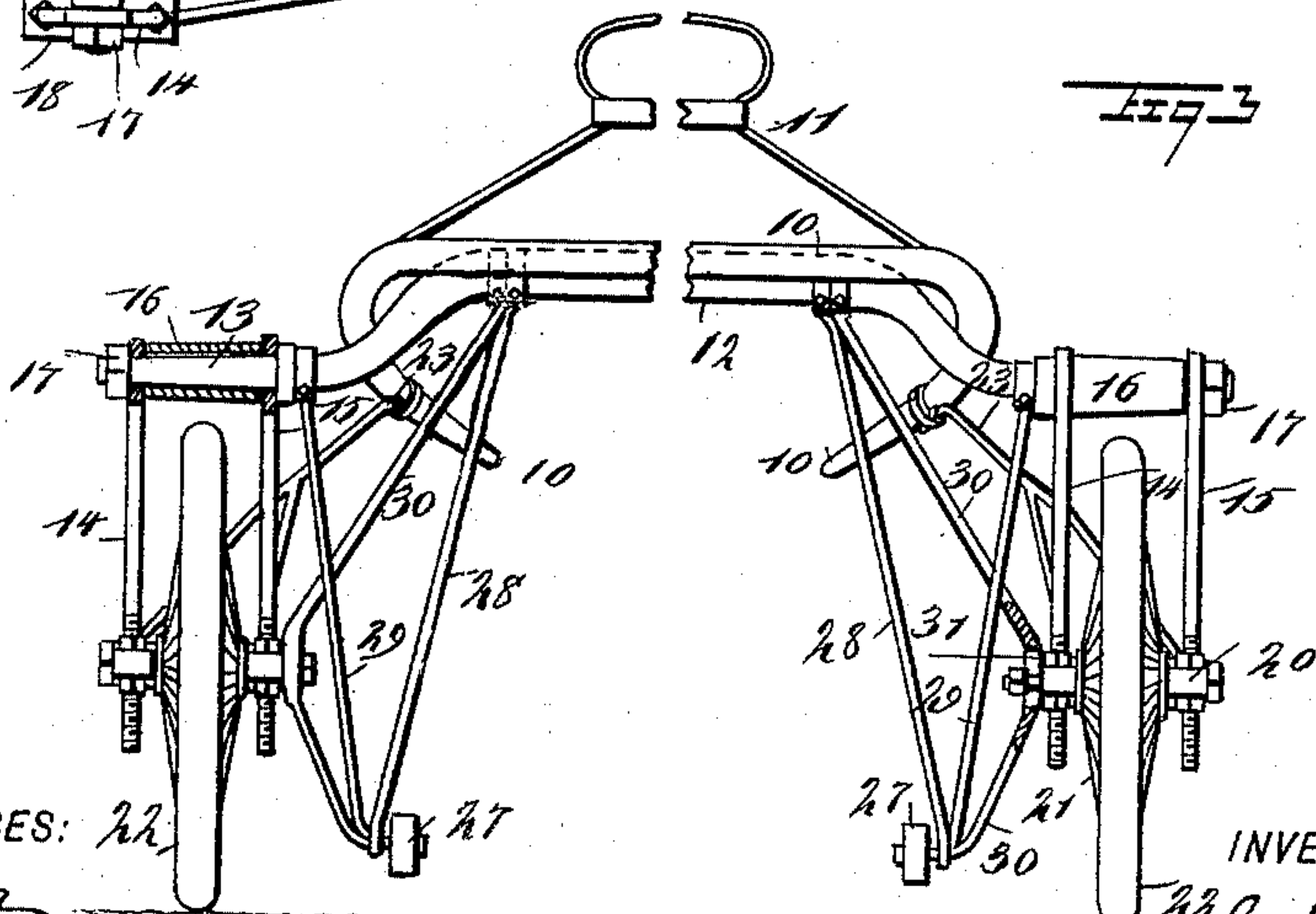
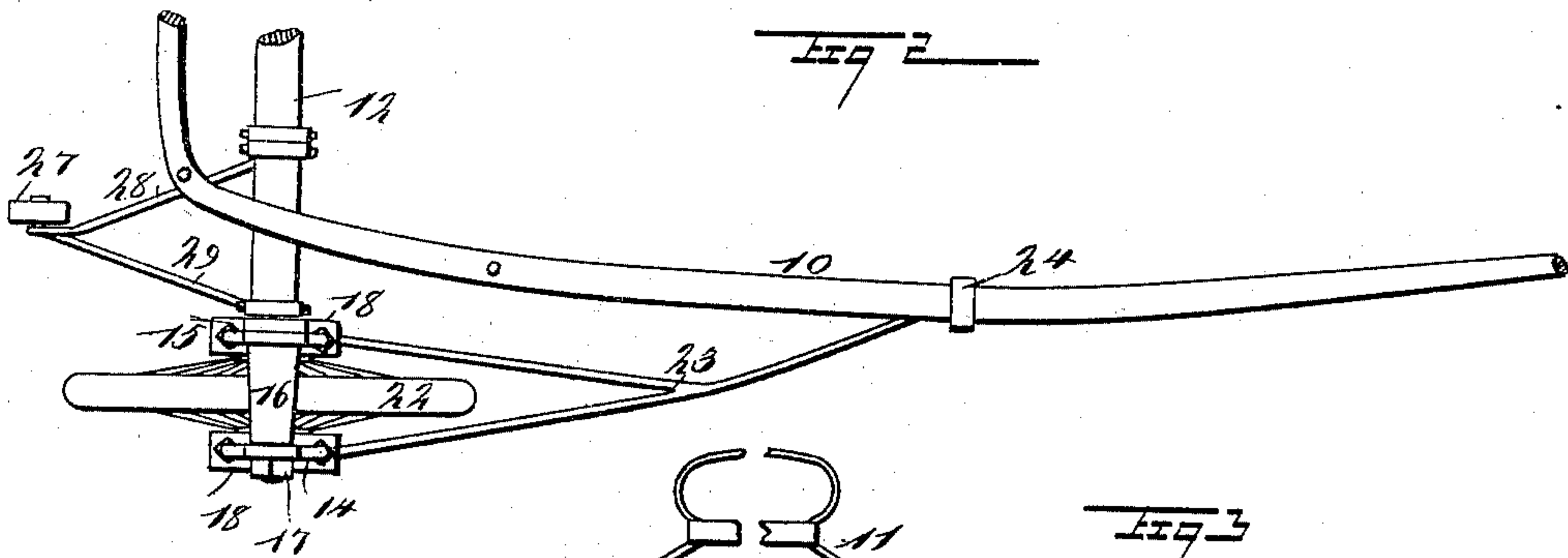
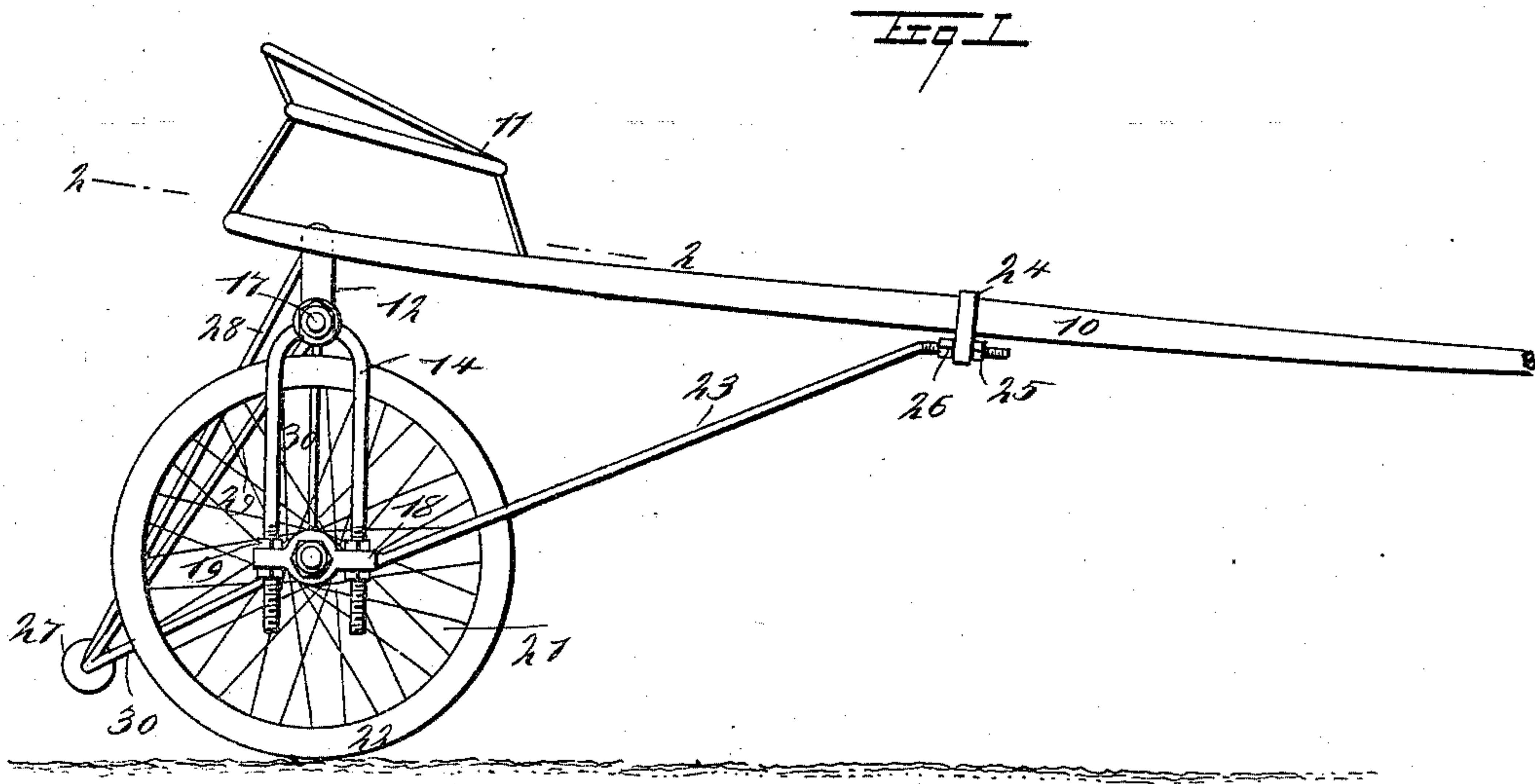


(No Model.)

G. J. LOOMIS.
SULKY.

No. 518,462.

Patented Apr. 17, 1894.



WITNESSES:
H. Walker
G. Sedgwick

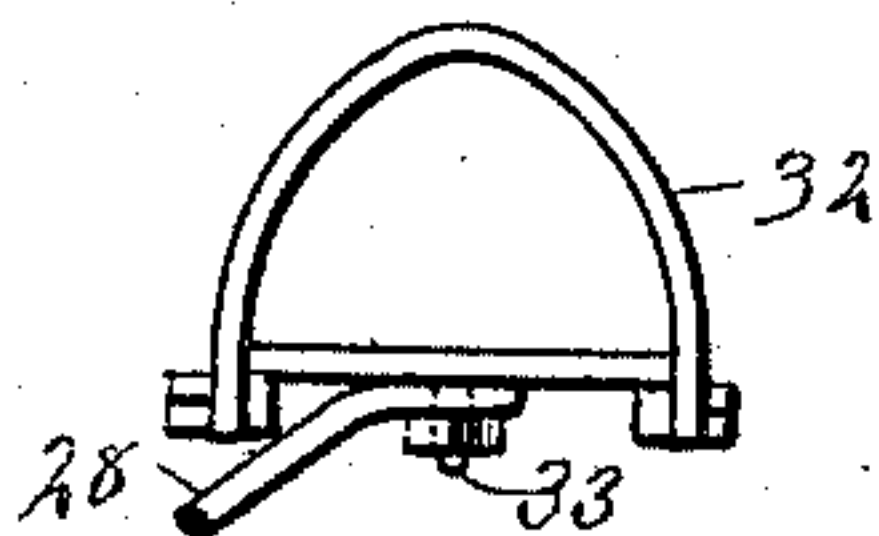
INVENTOR

G. J. Loomis

BY Munn & Co

ATTORNEYS.

Fig 4



UNITED STATES PATENT OFFICE.

GILBERT J. LOOMIS, OF WESTFIELD, MASSACHUSETTS.

SULKY.

SPECIFICATION forming part of Letters Patent No. 518,462, dated April 17, 1894.

Application filed September 26, 1893. Serial No. 486,521. (No model.)

To all whom it may concern:

Be it known that I, GILBERT J. LOOMIS, of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and Improved Sulky, of which the following is a full, clear, and exact description.

My invention relates to an improvement in sulkies, and it has for its object to provide a means whereby the body of the sulky may be raised and lowered upon the wheel supports, enabling the vehicle to be used with equal facility in connection with an animal of large as with one of small stature.

A further object of the invention is to provide a means whereby pneumatic wheels may be applied to the body of any sulky.

Another object of the invention is to provide an attachment to the sulky which will effectually prevent the sulky from being upset in a rearwardly direction, the attachment being clear of the ground while the sulky is in ordinary use.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improved sulky. Fig. 2 is a plan view of one side, the seat uprights being in horizontal section, said section being taken practically on the line 2—2 of Fig. 1. Fig. 3 is a rear elevation of the improved sulky, a portion of the attachment being broken away; and Fig. 4 is a detail view hereinafter more particularly described.

The body of the sulky consists of the usual shafts 10, seat 11 supported from the shafts, and an axle 12, connected with the return or rear portion of the shafts.

The improved wheel attachment is adapted to be made to the spindles 13 of the axle of the body of the sulky, and in applying the attachment two pedestals or hangers 14 and 15, are employed in connection with each axle spindle 13. These hangers or pedestals are preferably inverted U-shape in general contour, and they are made to engage with the spindles one near the shoulder and the other

near the outer end, and the pedestals or hangers of each spindle are held separate and in proper position through the medium of a sleeve 16, made to fit to the periphery of the axle spindle, the ends of the sleeve being in engagement with the inner faces of the hangers or pedestals, and the pedestals and sleeves are maintained upon the axle through the medium of lock nuts 17, located upon the outer ends of the axle spindles. Exteriorly the sleeves are of cylindrical form, but they are tapered, the taper corresponding to that of the axle spindle, as shown at the left in Fig. 3. The pedestals or hangers are threaded at their lower ends, and the threaded section of the members of each hanger or pedestal is adapted to carry a box 18, the boxes being rendered adjustable upon the hangers or pedestals by locating nuts 19 upon the threaded sections of the members of the pedestals above and below the boxes. The walls of the apertures in the boxes through which the pedestals are passed are smooth. The trunnions or axles of the supporting wheels 21, which are preferably provided with pneumatic tires 22, are journaled in the boxes of each set of pedestals; consequently, by adjusting the boxes the pedestals are raised or lowered in the boxes or supports for the wheels, and consequently the axle and the entire body of the sulky will be either raised or lowered.

It is sometimes desirable to carry the wheels as close as possible to the animal being driven, especially when considerable speed is desired, and such an adjustment may be readily effected by providing at each side of the sulky an adjusting bar 23. The lower ends of these bars are forked, and are secured to the forward members of the pedestals in any suitable or approved manner, while the forward ends of the adjusting rods are horizontal or straight and threaded, and are made to pass through apertures in hangers 24, projected downward from the shafts 10 at a point between their forward and rear portions, as shown in Fig. 1, the threaded ends of the adjusting rods being provided with a lock nut and a jam nut, designated respectively as 25 and 26, located one at each side of the hanger through which the rod passes. Thus it will be observed, by adjusting the nuts 25 and 26,

the adjusting rods may be carried rearward or forward as occasion may demand, and the center of the supporting wheels may be carried either in advance of the axle, or rearward 5 of the axle, or beneath it, as required.

It will be understood that in the lateral adjustment of the wheels the nuts 17 upon the spindles of the main axle are loosened to permit the pedestals to have movement on the 10 axle, and when the adjustment is made the nuts are again tightened. When the wheels are adjusted forwardly there is danger of the sulky being upset backwardly should the animal rear, and in order to prevent such an occurrence safety or brace wheels 27, are supported 15 normally above the ground between the supporting wheels 21, yet rearward thereof, and each safety or brace wheel is preferably supported through the medium of three brace bars 28, 29 and 30, the braces 28 and 29 20 being secured to the axle one near the spindle end, and the other at the bow portion of the axle, as shown in Fig. 3, the two rods being made to converge at their forward ends where 25 they may be connected, and these two rods are adapted to support the third brace rod 30, which is secured to the axle at the bow portion thereof, and preferably adjacent to the upper end of the inner rod 28.

30 The upper ends of the braces are connected to the sulky axle as follows: To the bow portion of the axle are fitted clips 32, shown in detail in Fig. 4, and the cross bar of said clip has a threaded projection 33 depending therefrom, which is received by an eye on the 35 braces 28 and 30, the latter being held in place thereon by a suitable nut. The body of the clip is also provided with bolts and nuts by means of which it may be clamped to place 40 on the axle. The connection of the braces 29 is of a similar nature, with the exception that the clip is of a shape corresponding to that of the spindle ends of the axle. This manner of connection enables the braces to be quickly 45 removed without detaching the clips from the axle. The brace rod 30, is carried downward

below the axle and receives in a slot 31 shown at the right in Fig. 3, the inner end of the supporting wheel trunnion or shaft; and the lower end of the brace rod 30, after being carried 50 to an engagement with the united ends of the rods 28 and 29, is adapted to receive loosely upon it a safety or brace wheel 27.

Having thus described my invention, I claim as new and desire to secure by Letters 55 Patent—

1. The combination in a sulky, of an axle having spindles at its ends, wheel hangers arranged upon the outer end and inner end of each spindle, the said hangers being composed 60 each of two parallel branches having a perforation at their united upper ends to receive the spindle and screw threaded lower ends, journal boxes carrying a wheel and having extensions on each side provided with perforations large 65 enough to allow of the sliding of the branches of the hangers through them, and two screw nuts arranged upon each branch of the hangers, the one nut above the other below the extended portions of the journal box, substantially as and for the purpose described. 70

2. In a sulky, the combination of an axle, hangers depending from the ends of its axle, supporting wheels carried in bearings in the lower part of said hangers, means for adjusting 75 these hangers and supporting wheels forwardly or rearwardly, and a brace wheel arranged in the rear of the sulky and normally out of contact with the ground, and connected to the sulky by three braces; one extending 80 from the brace wheel to the middle part of the axle, another from the brace wheel to the outer part of the axle, and the third extending from the brace wheel to the axle and connected at an intermediate point with the axis 85 of the supporting wheel, substantially as shown and described.

GILBERT J. LOOMIS.

Witnesses:

WILLIS S. KELLOGG,
H. A. LOOMIS.