

No. 768,373.

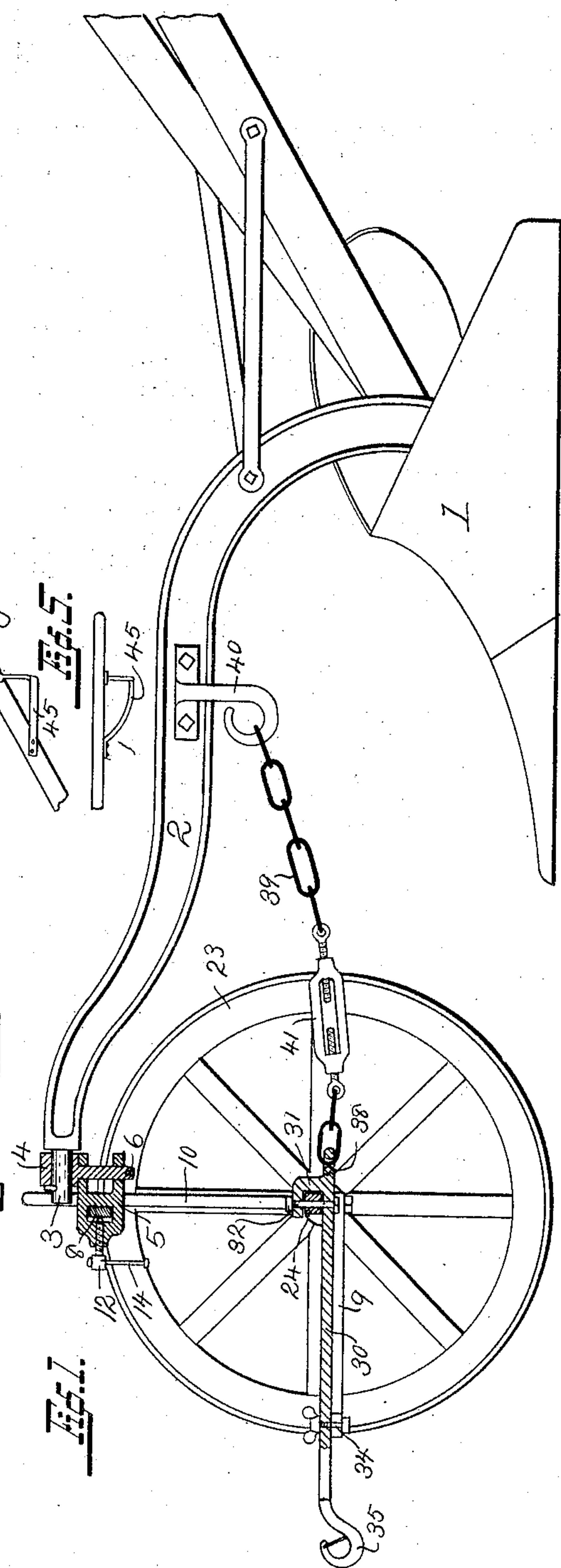
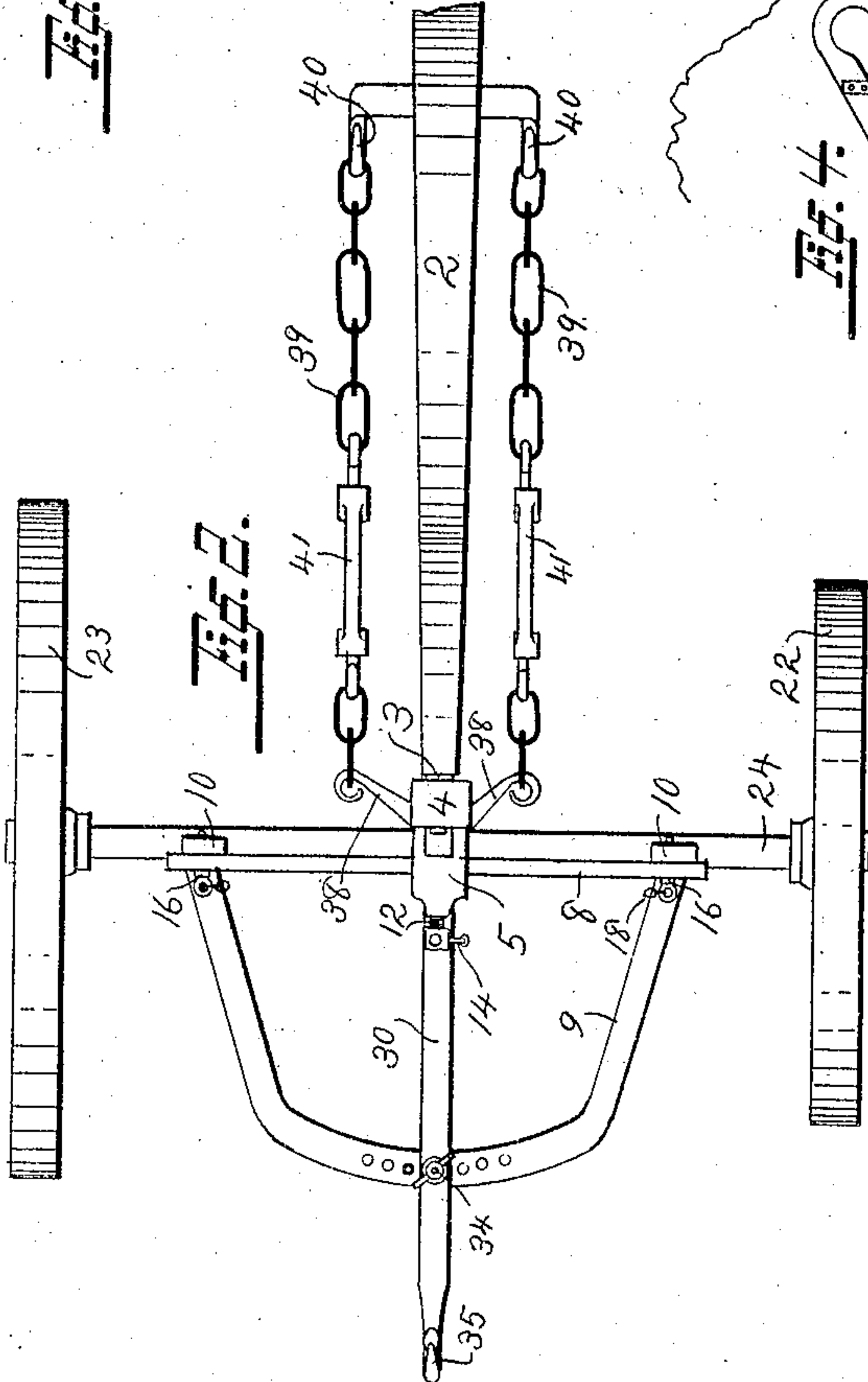
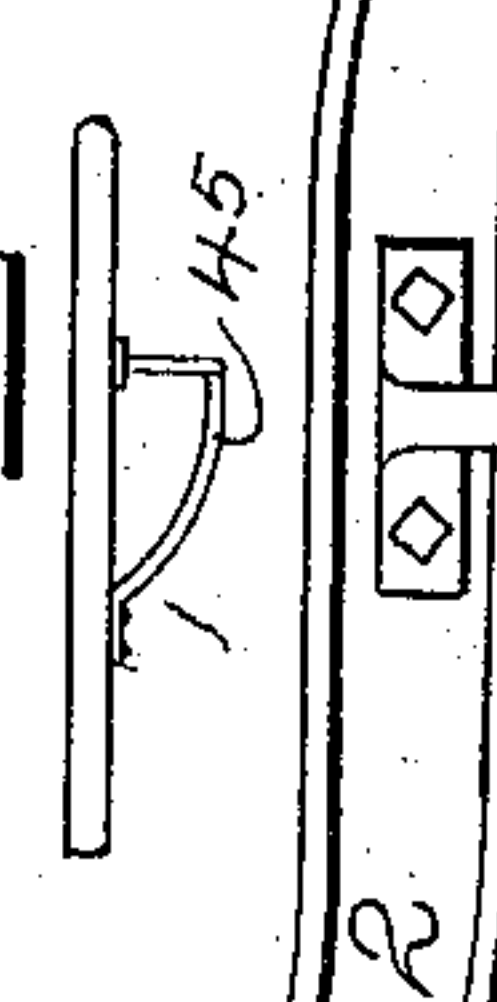
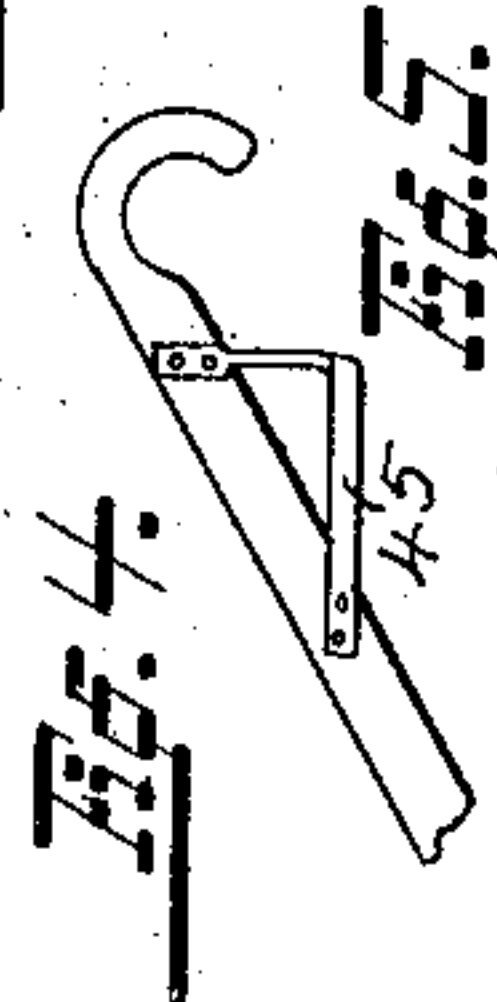
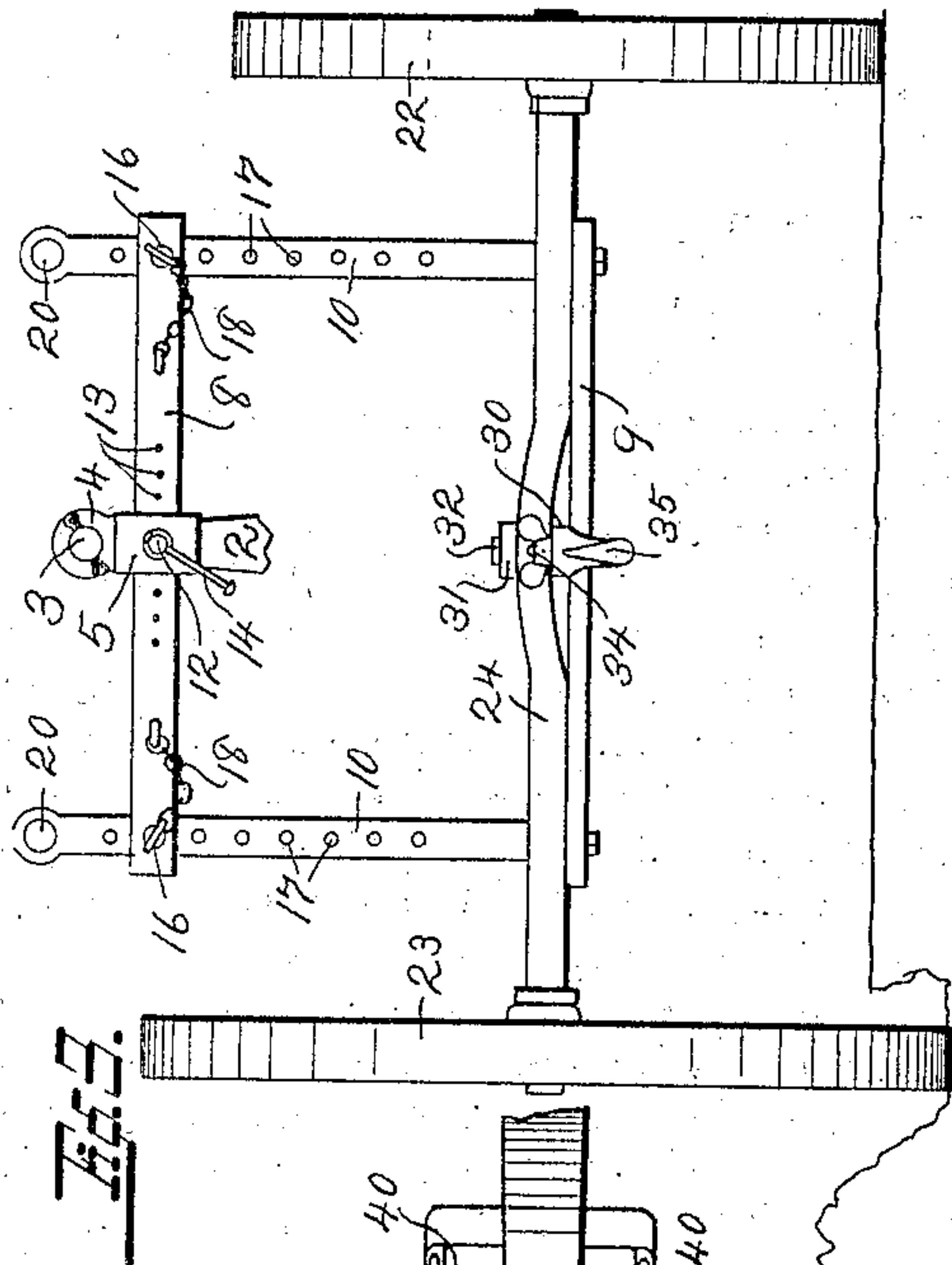
PATENTED AUG. 23, 1904.

L. W. KAUSCH.

DRAFT AND GUIDE ATTACHMENT FOR PLOWS.

APPLICATION FILED MAY 4, 1903.

NO MODEL.



WITNESSES:

*W. J. Taughner.*

INVENTOR.

BY *Louis W. Kausch*  
*Erwin & Wheeler*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

LOUIS W. KAUSCH, OF MILWAUKEE, WISCONSIN.

## DRAFT AND GUIDE ATTACHMENT FOR PLOWS.

SPECIFICATION forming part of Letters Patent No. 768,373, dated August 23, 1904.

Application filed May 4, 1903. Serial No. 155,520. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS W. KAUSCH, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Draft and Guide Attachments for Plows, of which the following is a specification.

My invention relates to improvements in draft and guide attachments for plows.

The object of my invention is to provide a form of attachment by means of which the width and depth of the furrow may be regulated, which will lessen the labor of controlling the plow, and which will relieve the strain upon the outer end of the plow-beam.

Further objects of the invention embodied in certain details of construction will be apparent from the description.

In the drawings, Figure 1 is a side view of a plow, showing my invention in longitudinal section. Fig. 2 is a plan view of my invention, showing the same connected with the end of the plow-beam. Fig. 3 is a front elevation of my invention. Figs. 4 and 5 are side and top views, respectively, of an attachment for the plow-handle whereby the handle is kept from contact with the soil when the plow is tipped over.

Like parts are identified by the same reference characters throughout the several views.

1 is the plow.

2 is a plow-beam provided with a trunnion 3, projecting longitudinally from its forward end through an eye in a coupling-pin 4, the latter being formed to extend through suitable apertures in a coupling-yoke 5. The pin 4 is secured in the apertures of the yoke 5 by means of an ordinary key 6. As the coupling-pin 4 is free to turn in a vertical plane upon the trunnion 3, while the yoke 5 is free to turn horizontally upon the coupling-pin, it is obvious that a compound or universal joint is formed between the yoke and the end of the plow-beam.

A head-frame composed of the cross-bars 8 and 9 and vertical posts 10 is suspended from the yoke, the cross-bar 8 of the frame being passed through the yoke and secured therein by a screw-threaded bolt 12, having a point

bearing at its inner end adapted to engage in suitable sockets 13 in the bar 8.

14 is a handle for operating the bolt 12.

As the bar 8 is provided with a series of sockets 13, it is obvious that the frame may be adjusted to the right or left by moving the bar in the coupling and engaging it in any desired socket. The posts 10 are secured to the cross-bar 8 by means of pins 16, each of the bars 10 being provided with a series of apertures 17 for the reception of such pins in various positions of post adjustment. Chains 18 permanently connect the pins 16 with the bar 8 to prevent them from becoming lost. The upper ends of the posts 10 are provided with eyes 20, through which the reins are passed to prevent them from becoming caught on the frame.

Wheels 22 and 23 are mounted upon an axle-shaft 24, and the latter is secured by the lower cross-bar 9 of the head-frame. The wheel 23 is of larger diameter than the wheel 22 and is adapted to run in the furrow, while the wheel 22 runs upon the unplowed soil.

It will be observed, Fig. 2, that the lower bar 9 of the head-frame constitutes a forwardly-projecting yoke. A draft-beam 30 is provided with a hook 31 at its rear end, which is connected with the axle-shaft 24 by means of a king-bolt 32. The beam 30 is also adjustably connected with the frame-bar yoke 9 by means of a bolt 34, and at its front end the beam 30 is provided with a draw-hook 35 of ordinary construction, the same being adapted for engagement with the clevis-ring connected with the eveners. (Not shown.) At its rear end the beam 30 is provided with laterally-projecting arms 38, which are connected by chains 39 with hook-shaped brackets 40 on the plow-beam 2. Turnbuckles 41 are used to adjust the length of the chains 39, whereby the strain may be exerted upon the rear portion of the plow-beam. Referring to Figs. 4 and 5, it will be observed that the plow-handles are provided with outwardly and laterally projecting brackets 45, which constitute shoes for the purpose of keeping the plow-handles from contact with the soil when the plow is tipped over.

In operation the posts 10 are adjusted ver-



tically to regulate the depth of the furrow, the cross-bar 8 is adjusted laterally to regulate the width of the furrow, and the draft-beam 30 is adjusted laterally on the yoke 9 to adjust the draft in correspondence with the other adjustments above mentioned, whereby the plow is made to draw parallel with the line of the furrow.

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

1. The combination with a plow-beam, of a coupling member having universal-joint connection therewith; a frame having its upper bar mounted to slide in the coupling member; draft connections attached to the lower portion of said frame; a plurality of flexible connections between the lower portion of the frame and the plow-beam at a point in the rear of said coupling member; and means for varying the length of said draft connections in accordance with the adjustment of the frame in the coupling member; said flexible connections being attached to the frame on the opposite sides of the draft connection.

2. The combination with a plow-beam, of a coupling-yoke provided with a swiveled coupling-pin, having an eye at its upper end; a projection on the plow-beam, forming a pivotal bearing for said eye; a frame adjustably mounted in said yoke and provided with suitable draft connections; and flexible stays attached to the frame on each side of the draft connections and secured to the rear portion

of the plow-beam; said stays being formed in sections, with interposed turnbuckle connections, whereby they may be adjusted in length to correspond with the adjustment of the frame.

3. The combination with a plow-beam; of a coupling-yoke provided with a swiveled coupling-pin, provided with an eye at its upper end; a projection on the plow-beam forming a pivotal bearing for said eye; a frame mounted in said yoke and provided with suitable draft connections; and flexible connections between the frame below the yoke, and the rear portion of the plow-beam.

4. The combination of a plow-beam; a coupling at its front end; a head-frame having an upper bar adjustably mounted in said coupling and side bars adjustably connected with said upper bar; draft attachments connected with the lower portion of the head-frame; and means for supporting the head-frame from the plow-beam at a point below the coupling.

5. The combination with a plow-handle, of a bracket-shoe connected therewith and forming a rest, whereby the plow-handle is kept from contact with the ground when the plow is turned on its side.

In testimony whereof I affix my signature in the presence of two witnesses.

LOUIS W. KAUSCH.

Witnesses:

LEVERETT C. WHEELER,  
JAS. B. ERWIN.