

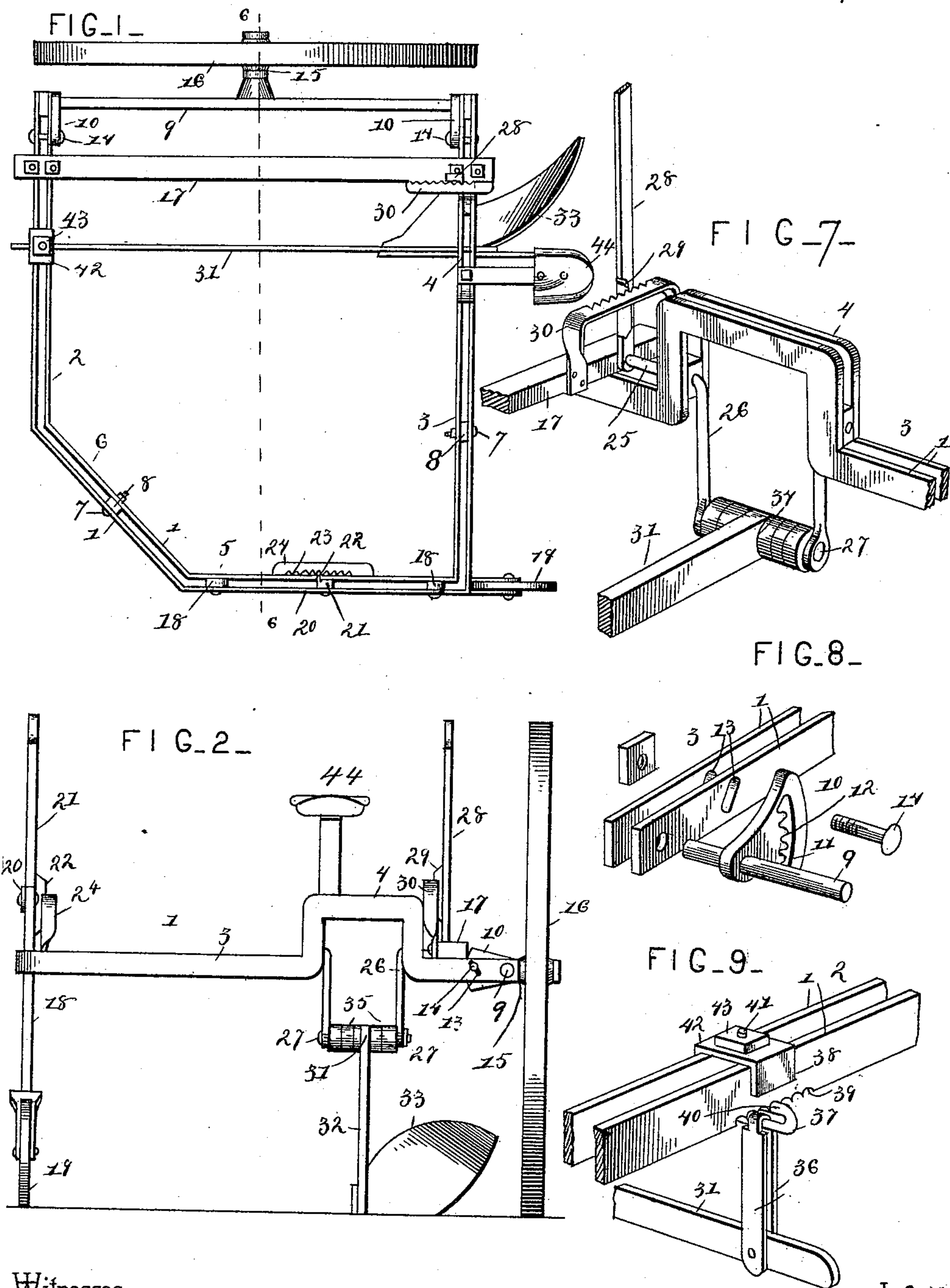
(No Model.)

2 Sheets—Sheet 1.

L. C. JACKSON & J. F. REIGER.
SULKY PLOW.

No. 464,635.

Patented Dec. 8, 1891.



Witnesses

Geo. E. French

Wm. Baggett

By their Attorneys,

C. A. Snow & Co.

Inventors

Luther C. Jackson.

John F. Reiger.

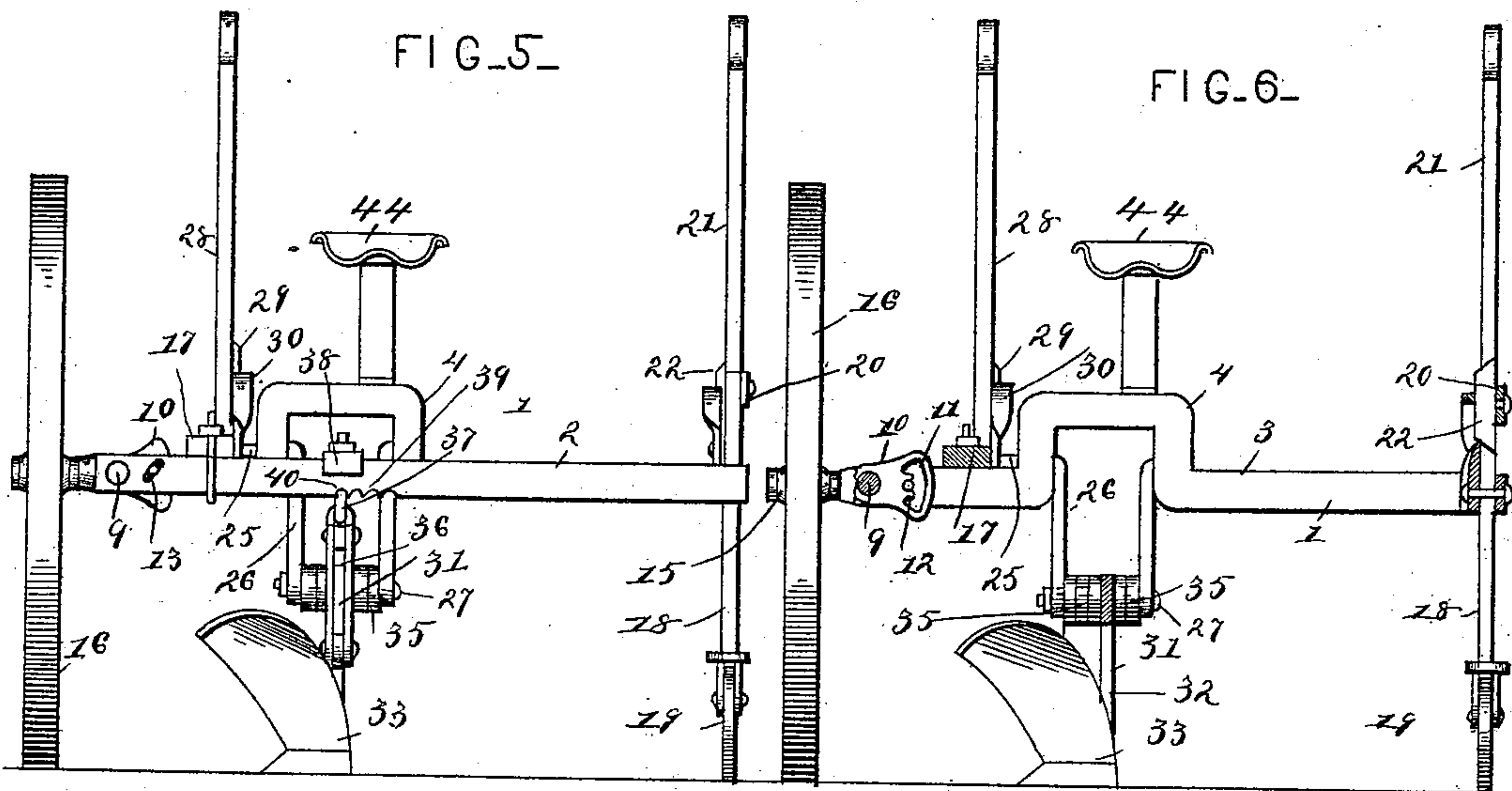
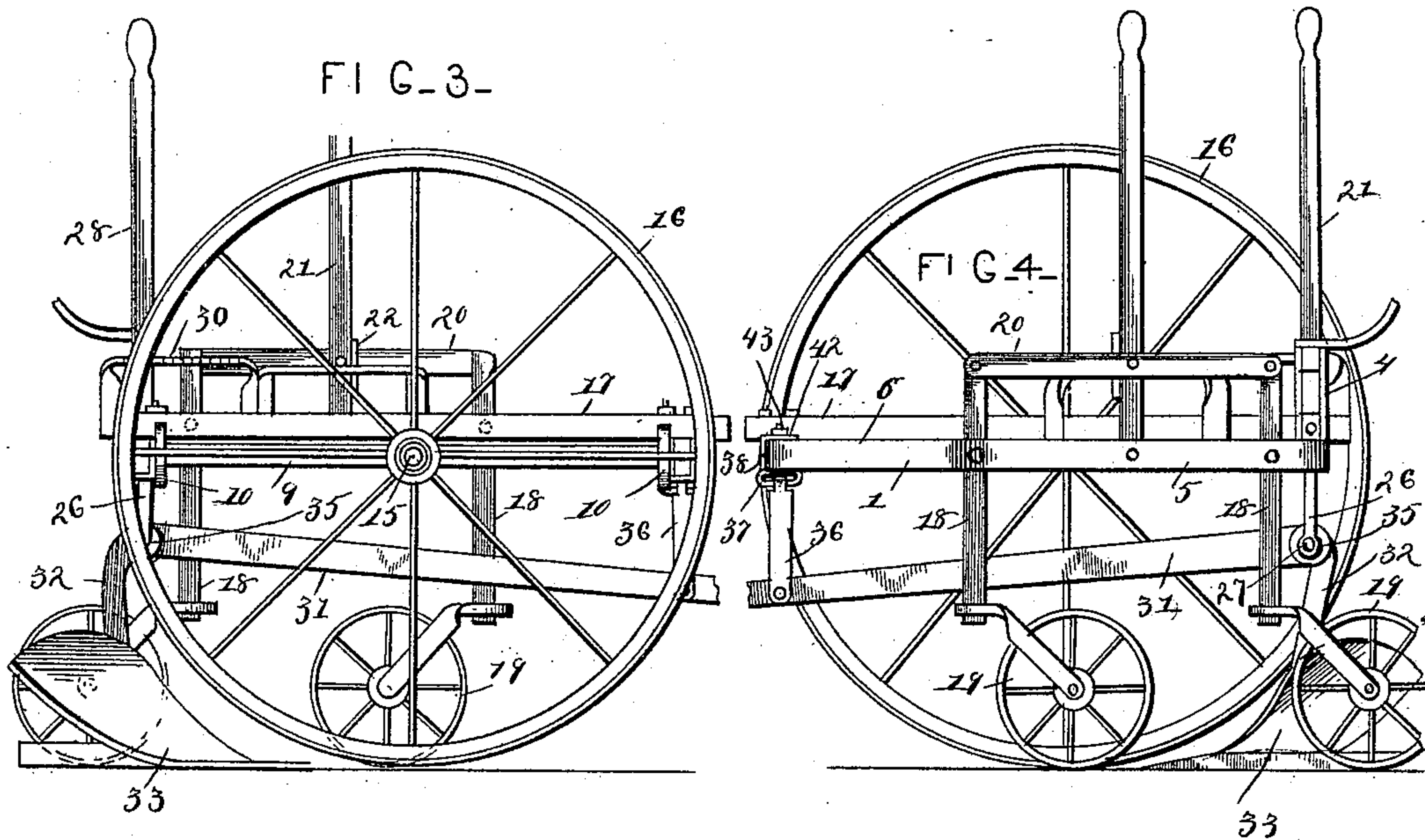
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UNITED STATES PATENT OFFICE.

LUTHER C. JACKSON, OF WOLFE CITY, AND JOHN F. REIGER, OF DALLAS,
TEXAS.

SULKY-PLOW.

SPECIFICATION forming part of Letters Patent No. 464,635, dated December 8, 1891.

Application filed February 13, 1891. Serial No. 381,322. (No model.)

To all whom it may concern:

Be it known that we, LUTHER C. JACKSON, of Wolfe City, Hunt county, and JOHN F. REIGER, of Dallas, in the county of Dallas and State of Texas, citizens of the United States, have invented a new and useful Sulky-Plow, of which the following is a specification.

This invention relates to sulky-plows, and it has for its object to provide a device of this class which shall be simple in construction, inexpensive, and easily manipulated, and in which the plow and the frame may be readily adjusted, when desired, to any position with relation to each other that shall insure lightness of draft and steadiness of motion.

With these ends in view the invention consists in the improved construction, arrangement, and combination of parts which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a top plan view of a sulky-plow constructed in accordance with our invention. Fig. 2 is a rear elevation of the same. Fig. 3 is a side elevation. Fig. 4 is a side elevation taken from the opposite side. Fig. 5 is a front elevation. Fig. 6 is a transverse sectional view taken on the line 6 6 in Fig. 1 and looking in a rearward direction. Fig. 7 is a detail view of the mechanism for adjusting the plow. Fig. 8 is a perspective detail view of the means for adjusting the shaft carrying the main supporting-wheel. Fig. 9 is a detail view of the mechanism for adjusting the front end of the plow-beam.

Like numerals of reference indicate like parts in all the figures of the drawings.

The frame of our improved sulky-plow is composed of two straps of steel 1 1, which are bent so as to form a frame of the general shape and outline shown in the drawings hereto annexed. The said frame, as will be seen in the drawings, is composed of the front and rear pieces 2 and 3, which latter is provided with an arch 4 and a side piece 5, connected by an oblique corner-piece 6 with the front piece of the same. The two strips 1 1, of which the frame is composed, are bent to the desired shape and are connected with each other by means of bolts 7, upon which spacing blocks or washers 8 are mounted so

as to hold the strips 1 1 at the desired distance apart parallel to each other. We desire to state that while it is preferred that the arch 4 should be bent or formed integrally with each of the strips 1, it may be made separately and connected with the said strips by means of bolts, rivets, or in any other convenient manner. The free ends of the front and rear pieces 2 and 3 of the frame are connected by a rod or shaft 9, having suitable bearings in the ends of said frame-pieces. The said shaft is provided with laterally-extending arms or brackets 10, having segmental slots 11, provided with corrugations or scallops 12, adapted to register with an inclined slot 13, formed in each of the frame-pieces 2 3, adjacent to the arms or brackets 10.

14 14 designate bolts that pass through the slots 13 and through the slots 11 in the arms or brackets 10 and serve to connect the latter adjustably with the frame, thus enabling the shaft 9 to be adjusted, as will be readily understood. The notches or scallops 12 serve to engage the bolts 14 after the latter have been adjusted, thus holding them securely and preventing accidental displacement. The rod or shaft 9 is provided with a laterally-extending spindle 15, carrying the main transporting-wheel 16. The frame is provided between the arch 4 and the rod or shaft 9 with a longitudinal brace 17, which serves to stiffen the frame without materially increasing the weight. Between the portion of the straps 1 1 which form the side bar 5 of the frame are pivoted levers 18, the lower ends of which carry the swiveled caster-wheels 19, which are of ordinary construction. The upper ends of the levers 18 are connected by a pivoted rod 20. An operating-lever 21, which is pivoted between the straps 1 1, is likewise pivotally connected with the connecting-rod 20, so that by manipulating the said lever the levers 18 may be adjusted to raise or lower the caster-wheels 19 with relation to the frame. The hand-lever or operating-lever 21 is provided with a suitable catch 22, adapted to engage any one of a series of notches 23 in a ratchet-bar 24, which is suitably attached to the frame of the machine. The said lever and the parts operated thereby may thus be conveniently retained in any position to which they may

be attached. By the use of two caster-wheels instead of a single one, which has been commonly used of this class, the frame is prevented from swaying and vibrating during operation, and we are thus enabled to dispense with the use of a tongue. At the same time, the said caster-wheels being swiveled the machine may turn very shortly at the corners of the field and may be operated in the easiest and most efficient manner.

The rear piece 3 of the frame is provided with bearings for the ends of a shaft 25, having a crank 26, the sides of which are connected by a detachable bolt 27. One end of the crank-shaft 25 has a hand-lever 28, provided with a catch 29, adapted to engage a ratchet-bar 30, which is suitably attached to the longitudinal brace 17 of the frame.

31 designates the plow-beam, which is constructed in the usual manner with a standard 32, to which the plow 33 is attached. The plow-beam is provided with a transverse perforation 34 for the passage of the bolts 27, forming a portion of the crank 26, upon which it is mounted. Washers 35 are mounted upon the bolt 27 at either side of the plow-beam, which latter may be laterally adjusted upon the said bolt by moving the washer from one side of the plow-beam to the other. Such adjustment may be conveniently effected by temporarily removing the bolt 27, as will be readily understood.

The front end of the plow-beam is connected by a link or rod 36 with a clip 37, which is mounted between the portion of the straps 1 1, forming the front bar 2 of the frame. Said clip is approximately T-shaped, and is provided with downward-extending flanges 38, engaging the upper edges of the straps. The latter are provided in their under sides with notches 39 to receive the cross-bar 40 of the clip, which latter may thus be secured against lateral movement in any desired position. The shank 41 of the clip may be screw-threaded at its upper end which extends through the flanged head 42 and provided with a nut 43, thus enabling the said clip to be conveniently adjusted.

It will be seen from the foregoing that the front as well as the rear end of the plow-beam is capable of being laterally adjusted. In addition to this the rear end of the plow-beam may be adjusted by means of the lever 28, attached to the crank-shaft 25, so as to set it at any desired depth. The vertical adjustment of the rear end of the plow-beam may be readily effected while the machine is in operation by the driver, whose seat 44 is suitably attached to the arch 4 of the rear cross-bar of the frame. The outer end of the frame is supported upon the caster-wheels 19 and may likewise be readily adjusted by the driver during the operation of the machine. Previous to starting, however, the plow-beam should be adjusted to the desired position. The main supporting-wheel 16 should also be tilted inwardly by properly adjusting the rod

or shaft 9 to any desired inclination. The object of this is to cause the said wheel to present a certain degree of resistance against the mold-board of the plow which turns the soil in the direction of the said supporting-wheel. In very light soil the position of the wheel may be nearly or quite vertical. In waxy or sticky soil the inclination of the wheel should be gaged according to the degree of resistance presented in order to cause the plow to run true and even and in the lightest possible manner.

As will be understood from the foregoing description, the draft is to be applied direct to the front end of the plow-beam, our improved sulky-frame being used without a tongue. The construction of the frame is simple, inexpensive, and efficient, and it will be readily understood that a plow of any desired construction may be used in connection with the sulky-frame.

It is our intention to use a plow having a wooden mold-board which has been found by practice to possess superior advantages over the metallic mold-board in shedding the sticky and waxy black soil which is frequently encountered in certain parts of the country. Such a plow, however, will be made subject of a separate application for Letters Patent, and does not require to be more fully herein described.

We have in the foregoing described what we consider to be the preferred construction of our improved sulky-plow; but we desire it to be understood that we do not limit ourselves to the precise construction and arrangement of details herein shown and described; but reserve the right to any changes and modifications, to which recourse may be had without departing from the spirit of our invention.

Having thus described our invention, what we claim is—

1. In a sulky-plow, the frame composed of a pair of metallic straps suitably spaced and connected and bent to form the front and rear bars, the side bar and the oblique corner-bar, the rear frame-bar being provided with an upward-extending arch, and the rock-shaft journaled in the ends of the front and rear frame-bars, substantially as set forth.

2. In a sulky-plow, the herein-described frame, composed of metallic straps suitably spaced and connected, in combination with the rod or rock-shaft mounted in the ends of the front and rear frame-bars and carrying a transporting-wheel, and means for adjusting and retaining the said rock-shaft, substantially as set forth.

3. In a sulky-plow, the combination of the frame composed of a pair of metallic straps suitably connected and spaced, the rock-shaft having a laterally-extending spindle carrying the transporting-wheel and laterally-extending arms or brackets adapted to be connected adjustably with the front and rear frame-bars, the levers mounted pivotally between

the portions of the straps forming the side bar of the frame, the caster-wheels swiveled at the lower ends of said levers, and means for adjusting the latter and for retaining them in any desired position, substantially as set forth.

4. In a sulky-plow, the combination, with the frame, of a rock-shaft having a laterally-extending spindle carrying the transporting-wheels, arms extending laterally from said rock-shaft and provided with segmental slots having notches or scallops, and the connecting-bolts extending through said segmental slots and through inclined slots in the front and rear frame-bar, substantially as and for the purpose set forth.

5. In a sulky-plow, the combination of the frame composed of a pair of metallic straps suitably spaced and connected, the levers mounted pivotally between the portions of the straps constituting the side bar of the frame, the caster-wheels swiveled at the lower ends of said levers, a pivoted rod connecting the upper ends of said levers, and a handle-ver pivoted between the frame-bars and pivotally connected with the pivoted connecting-rod, substantially as and for the purpose set forth.

6. In a sulky-plow, the combination, with the frame composed of metallic straps suitably spaced and connected and having the

arch, as herein described, of the crank-shaft journaled in the sides of said arch, the plow-beam mounted adjustably upon the said crank-shaft, a clip arranged between the straps forming the front cross-bar of the frame and having a flanged head, and a cross-bar engaging notches in the under sides of said straps, and a link connecting the front end of the plow-beam with said clip, substantially as set forth.

7. In a sulky-plow, the combination, with the frame, of a rock-shaft having a laterally-extending spindle carrying the main transporting-wheel, the levers mounted pivotally at the opposite side of the frame and carrying the swiveled caster-wheels, means for adjusting the latter, and the tilting transporting-wheel, and a plow mounted adjustably in the frame, substantially as and for the purpose set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

LUTHER C. JACKSON.

JNO. F. REIGER.

Witnesses to signature of L. C. Jackson:

R. S. FLETCHER,

M. B. ARMOR.

Witnesses to signature of J. F. Reiger:

JNO. W. GEORGE,

JAS. LATHROP.