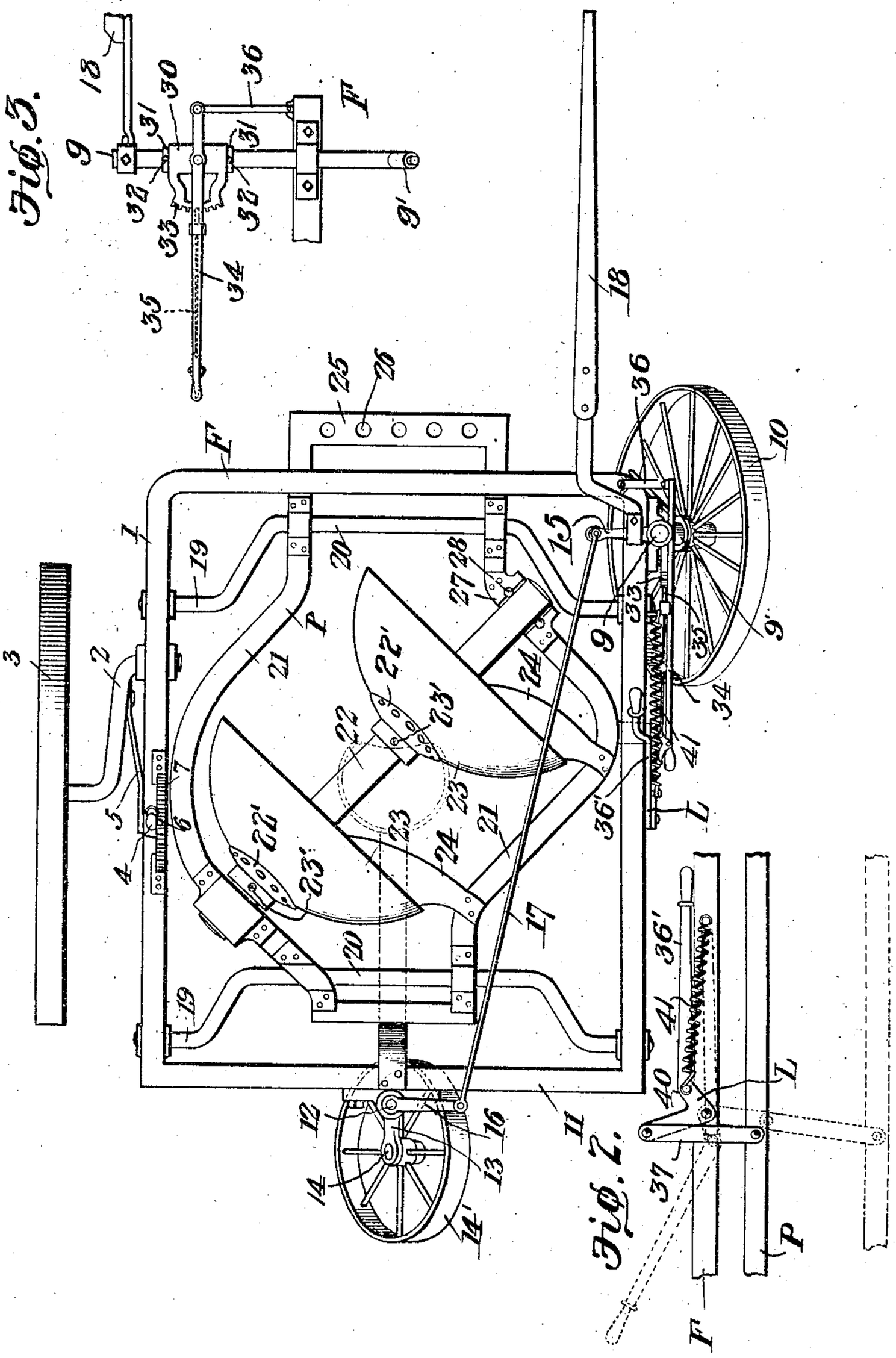
No. 820,242. PATENTED MAY 8, 1906.

P. McFERSON.

DISK BREAKING PLOW.

APPLICATION FILED FEB. 8, 1906.



WITNESSES:

E. F. Ellard

Wm. Bagger

Perry McFerson INVENTOR

By C. A. Snow & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

PERRY McFERSON, OF REVERE, MISSOURI.

DISK BREAKING-PLOW.

No. 820,242. Specification of Letters Patent. Patented May 8, 1906.

Application filed February 8, 1906. Serial No. 300,140.

To all whom it may concern:

Be it known that I, PERRY MCFERSON, a citizen of the United States, residing at Revere, in the county of Clark and State of Missouri, have invented a new and useful Disk Breaking-Plow, of which the following is a specification.

This invention relates to disk breaking-plows; and it has for its object to simplify and improve the construction and operation of this class of plows.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations, and modifications within the scope of the invention may be made when desired.

In the drawings, Figure 1 is a top plan view of a disk breaking-plow constructed in accordance with the principles of the invention. Fig. 2 is a detail side elevation illustrating the lifting mechanism for the plow-frame. Fig. 3 is a detail elevation illustrating the adjusting mechanism for the furrow-wheel.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

A main carrying-frame F is provided, which, as illustrated, is of rectangular shape, said frame being constructed of metal, wood, or other suitable material. One of the side members 1 of the frame is provided with a bearing for a crank 2, carrying a land-wheel 3, said crank and land-wheel being adjustable by means of a lever 4, which is connected with the crank by means of a link or rod 5, said lever being provided with a stop member 6, adapted to engage a rack-segment 7, whereby said lever and related parts may be securely retained at various adjustments.

The opposite side member 8 of the frame is provided with bearings for a shaft 9, carrying at its lower end a spindle 9′, upon which the leading furrow-wheel 10 is journaled. The shaft 9 carries a sleeve 30, held adjustably thereon by means of a pair of collars 31, having set-screws 32, and said sleeve is constructed with a segment-rack 33. 34 is a lever which is pivoted upon the sleeve 30 and is equipped with a stop member 35, engaging the rack 33. Said lever 34 is connected, by means of a link 36, with the plow-frame F.

It will be seen that by properly manipulating the lever 34 the plow-frame may be raised or lowered upon the shaft 9 or that, conversely, the leading furrow-wheel may be raised or lowered, as may be desired.

The rear cross-bar 11 of the frame is provided with bearings for a shaft 12, having at its lower end a crank 13, provided with a spindle 14, upon which the hind wheel or rear furrow-wheel 14′ is journaled. The shafts 9 and 12 are provided with arms 15 and 16, which are connected with each other by means of a link-rod 17. A tongue or steering member 18 is connected with the arm or crank 15. When the shaft 9 is turned or oscillated in its bearings by means of the tongue or steering-rod, motion will be transmitted by the link rod 17 to the shaft 12, carrying the wheel 14′, so that the wheels 10 and 14′ will be simultaneously adjusted in the proper direction to enable the carrying-frame to turn around corners when desired.

The side members 1 and 8 of the carrying-frame are provided with bearings in which are mounted a pair of crank-shafts 19, the cranks of which, 20, are journaled in bearings upon a plow-carrying frame P, which latter is thus supported beneath the main carrying-frame. The plow-frame P is provided with outwardly-bulging side pieces 21, affording bearings for a diagonally-disposed shaft 22, carrying the concavo-convex breaking-disks 23, of which any desired number may be used, two such disks being shown in the drawings. The disks are provided with hubs or castings 22′, whereby they may be secured upon the shaft, as by means of set-screws 23′, extending through the hubs or castings. The disks are deeply cupped in order that the soil may be extensively engaged thereby, thus enabling hard and refractory soil to be efficiently operated upon. One of the side members 21 of the frame P carries the scrapers or sod-turners 24, which engage the concave sides of the disks for the purpose of assisting in turning the soil. The front end of the plow-frame is extended in advance of the main carrying-frame, and the front cross-bar 25 of said frame has been shown as provided with a plurality of apertures 26, with any one of which the draft may be connected directly,

as by means of an evener or equalizer of ordinary construction.

The bearings 27, provided upon the side members 21 of the frame P for the disk-carrying shaft 22, are preferably equipped with antifriction-balls, as 28, for the purpose of reducing friction and facilitating the operation of the device.

For the purpose of elevating the plow-carrying frame for transportation there is provided a bell-crank lever L, which is pivoted upon the frame F, one arm of said bell-crank lever being extended to form a handle 36′ and the other arm being connected by means of a link 37 with the plow-carrying frame P. By manipulating this lever it will be seen that the plow-carrying frame may be raised or lowered, as will best appear by reference to Fig. 2 of the drawings. The handle portion of the lever is preferably formed with a knee or offset 40, which is connected with the main carrying-frame by means of a spring 41, which serves to retain the lever and related parts in adjusted position. An adjusting-lever 36 has been shown only at one side of the frame; but a similar lever may be disposed at the opposite side of the frame, if desired.

Having thus described the invention, what is claimed is—

1. In a device of the class described, a carrying-frame, rotary supporting means for said frame, crank-shafts supported by the side members of said frame, a plow-frame journaled upon the cranks of said shafts and having bulging side members, a diagonally-disposed shaft journaled in ball-bearings upon said side members, deeply-cupped disks upon said shaft, and scrapers or sod-turners supported upon one of the side members of the plow-frame and engaging the disks.

2. In a device of the class described, a carrying-frame having a land-wheel-carrying crank, means for adjusting said crank and for retaining it in various positions, approximately vertical shafts supported by a side member and by the rear cross-bar of the frame, furrow-wheels carried by spindles connected with said shafts, means for adjusting said shafts to guide the carrying-frame, crank-shafts supported by the side members of the carrying-frame, a plow-frame journaled upon the cranks of said shafts and having bulging side members, a diagonally-disposed shaft supported for rotation upon said side members, disks upon said shaft, and scrapers or sod-turners supported upon one of the side members of the plow-frame and engaging the disks.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

PERRY McFERSON.

Witnesses:
GEORG. M. HILLER,
ROBERT JOHNSON.