D. H. GLEESON.

Gang Plow.

No. 97,500. Patented Dec. 7, 1869.

Fig. 3

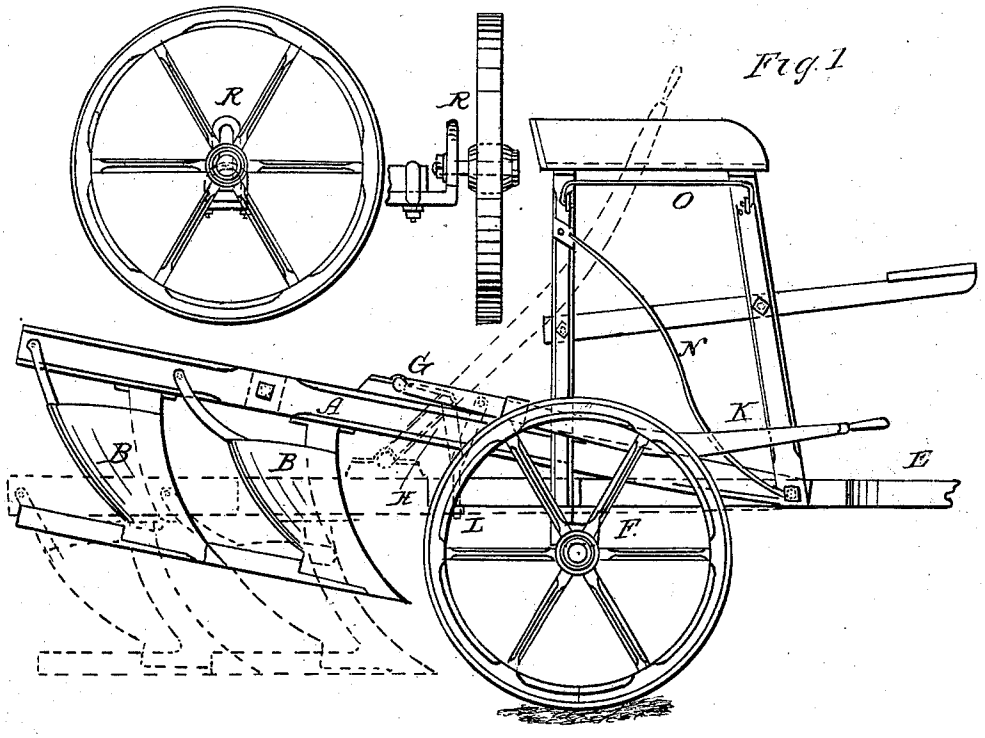

Fig. 1

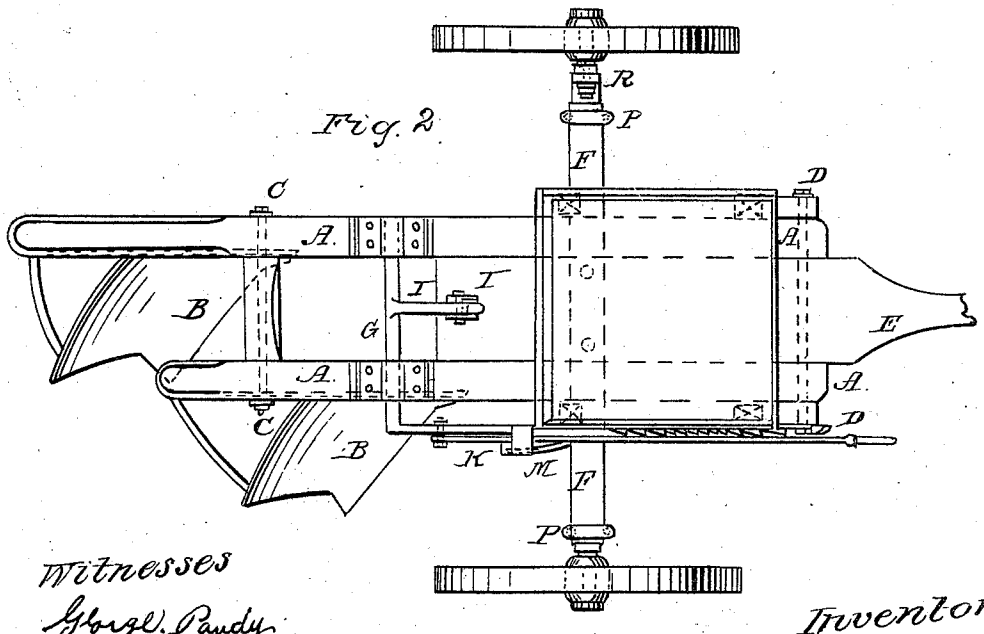

Fig. 2

Witnesses

George Pardy

John Pardy

Inventor

Denny Henry Gleeson

UNITED STATES PATENT OFFICE.

DENNIS HENRY GLEESON, OF SAN LEANDRO, CALIFORNIA, ASSIGNOR TO HIMSELF AND DENNIS GANNON, OF SAME PLACE.

IMPROVED GANG-PLOW.

Specification forming part of Letters Patent No. **97,500**, dated December 7, 1869.

To all whom it may concern:

Be it known that I, DENNIS HENRY GLEESON, of San Leandro, Alameda county, State of California, have invented a certain new and Improved Gang-Plow; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and figures and letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a side view. Fig. 2 is a plan. Figs. 3 and 4 are detail drawings of the adjustable axle.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation as follows:

To my plow-beams A A, I attach the plow-points B B, in the ordinary way, by bolts and braces, and no especial peculiarity is found in shape, construction, or manner of attachment of these plow-points.

My plow-beams A A are simply two beams of wood, connected by a cross-piece and tie-bolt, as shown at C, one of these beams—the one carrying the rear plow-point—being slightly longer than the other, as shown in the drawings. These beams A A are attached by the fulcrum-bolt D to the draft-pole E at a point considerably in advance of the axle of the plow-wheels. The draft-pole E is a flat timber in width corresponding to distance between the beams A A; but from a point a few inches beyond where the fulcrum-bolt E passes through it, it is fashioned into a round pole, as the common wagon-pole. This draft-pole is firmly bolted to the axle-tree or axle-beam F by two or more bolts.

The roller-shaft (so called) G, with its attached links H, arm I, and hand-lever K, though not new in principle, I have endeavored to simplify in its application. Upon each plow-beam I provide bearings, of either hard wood or iron, with suitable caps to cover them, and in these bearings I rest my roller-shaft. Midway between the bearings the rigid arm I projects from the shaft, and by the links H H is connected with the fulcrum-eyebolt L—a joint-bolt securing the connection—which fulcrum-bolt L is set at near the end of the draft-pole E. The hand-lever K is secured by one bolt to the flat part of the roller-shaft G, which is bent at right angle to the shaft and parallel to the rigid arm I, forming a short arm on the end of the roller-shaft. A stout spring, M, is attached by a strap at the extremity of this short arm, and this spring M, bearing against the hand-lever, serves to keep it in close contact with the notched bar N, which notched bar, holding the hand-lever at any desired point through it, holds in various position of elevation the plow-beams in connection therewith. The notched bar N is secured by a bolt to the back standard of the seat, and upon the beam fulcrum-bolt D, as shown in Fig. 1. A guard-bar, O, swinging in staples set in the standards or supports of the driver's seat, serves, when swung out, to fend off the hand-lever from engaging with the notched bar during the operation of plowing—a device in common use and of well-known construction. The driver's seat has no especial peculiarity, being simply a seat supported on four light standards, the two back standards being bolted to the axle-tree and the front ones rest on the fulcrum-bolt D, the foot-board being supported on projecting beams secured to the standards of the seat, in manner clearly shown in Fig. 1. The axles for each plow-wheel are separate, and are secured to the wooden axle-tree by strap-bolts, as at P P, and by the two bolts in the center, which also serve in securing the draft-pole to the axle-beam or axle-tree. One of these axles is fashioned in a peculiar manner, so as to admit of adjusting the height of the wheel to provide for the accommodation of the plow, and to keep it level when operating on hillsides or sloping ground—a matter understood by those acquainted in the art. The manner in which this axle is constructed is as follows: The part which is secured to the axle-tree is bent upward at a right angle with the axis of the wheel, and this upturned part R is provided with an elongated slot. The axle proper, upon which the wheel revolves, is a short piece of iron, consisting of a journal for the wheel and a short shank with thread cut on and nut on end, between the shank and the journal, a collar or shoulder intervening, which separates the hub of the wheel from the continuing part of the axle. The short shank of the axle proper is passed through the slot in the main part of the

axle, and by screwing up the nut it is firmly maintained in any position in which it may be set in the slot, and in this way is the height of the wheel adjusted, the limitation being due to the height or length given to the slot.

The operation of my plow is substantially similar to other gang-plows. Horses are hitched to the draft-pole E, and drag the plows through the soil. The driver, seated upon his seat, controls the horses, and, by means of the hand-lever at his side, may raise or lower the plow-points as may be required in the operation of plowing, the whole of the machine being carried forward and supported upon the wheels, as clearly shown in the figures of the drawings.

I do not claim as new any of the separate parts of my invention, for these parts, I am aware, are to be found in other gang-plows; but inasmuch as I have invented a peculiar combination of these parts, which as a whole I claim is new and improved, I desire to be secured therein by Letters Patent of the United States. I will here specifically set forth that I claim—

The combination and arrangement of the parts of my gang plow, as herein described, this combination and arrangement consisting in attaching the draft-pole E rigidly to the non-extensible axle of the carrying-wheels, the plow-beams being hung on the fulcrum-bolt D, which passes through the forward standards of the driver's seat, and the draft-pole in advance of the axle, and which plow-beams are operated by a roller-shaft and attachments, as shown, the whole of the parts being combined and arranged together in manner substantially as described, and for the purposes as set forth.

DENNIS HENRY GLEESON.

Witnesses:
GEORGE PARDY,
JOHN PARDY.