

H. JONES.

Plows.

No. 149,314.

Patented April 7, 1874.

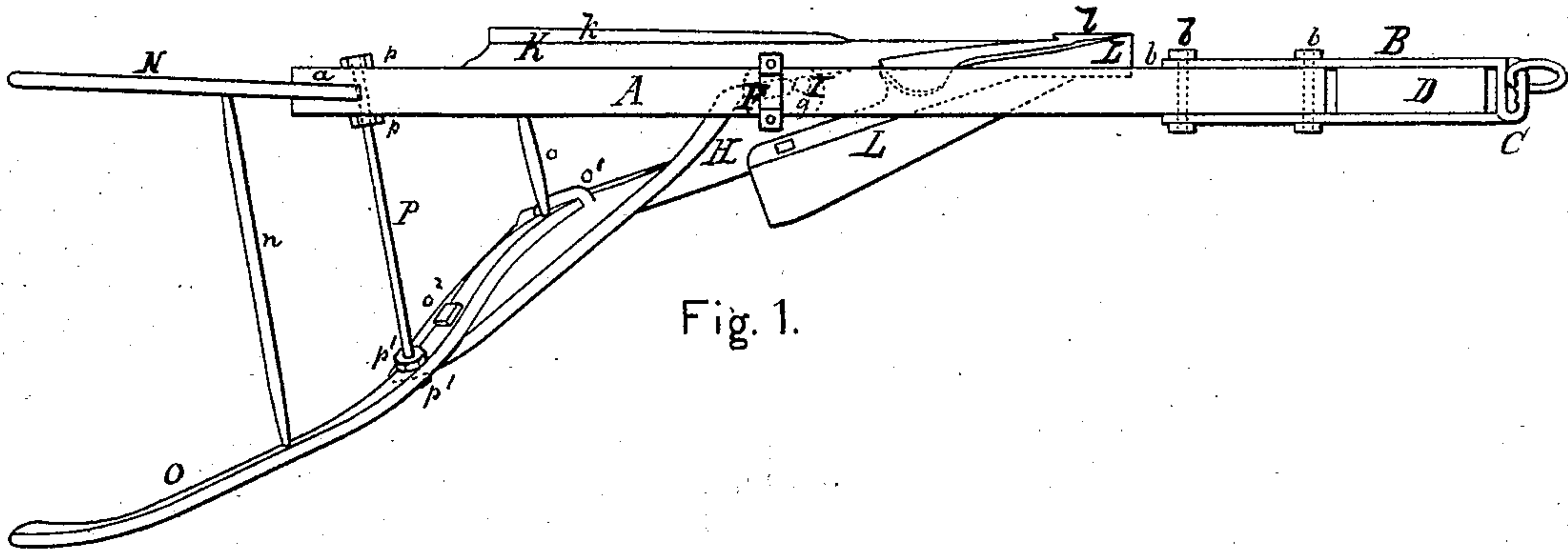


Fig. 1.

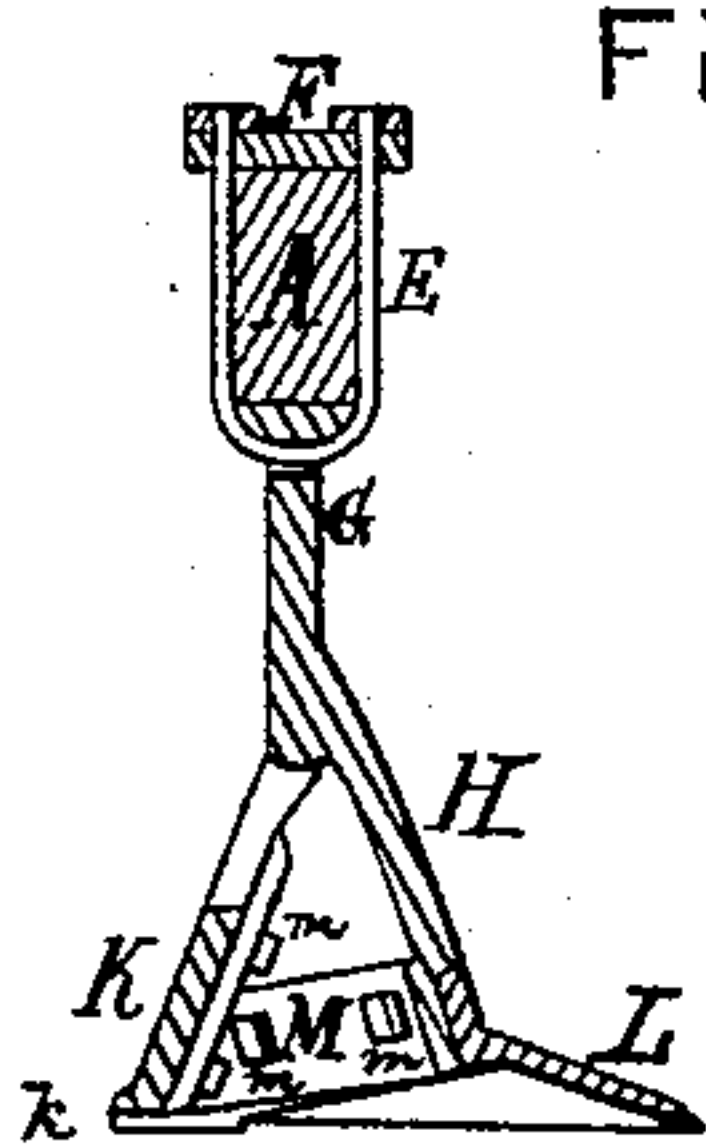


Fig. 4.

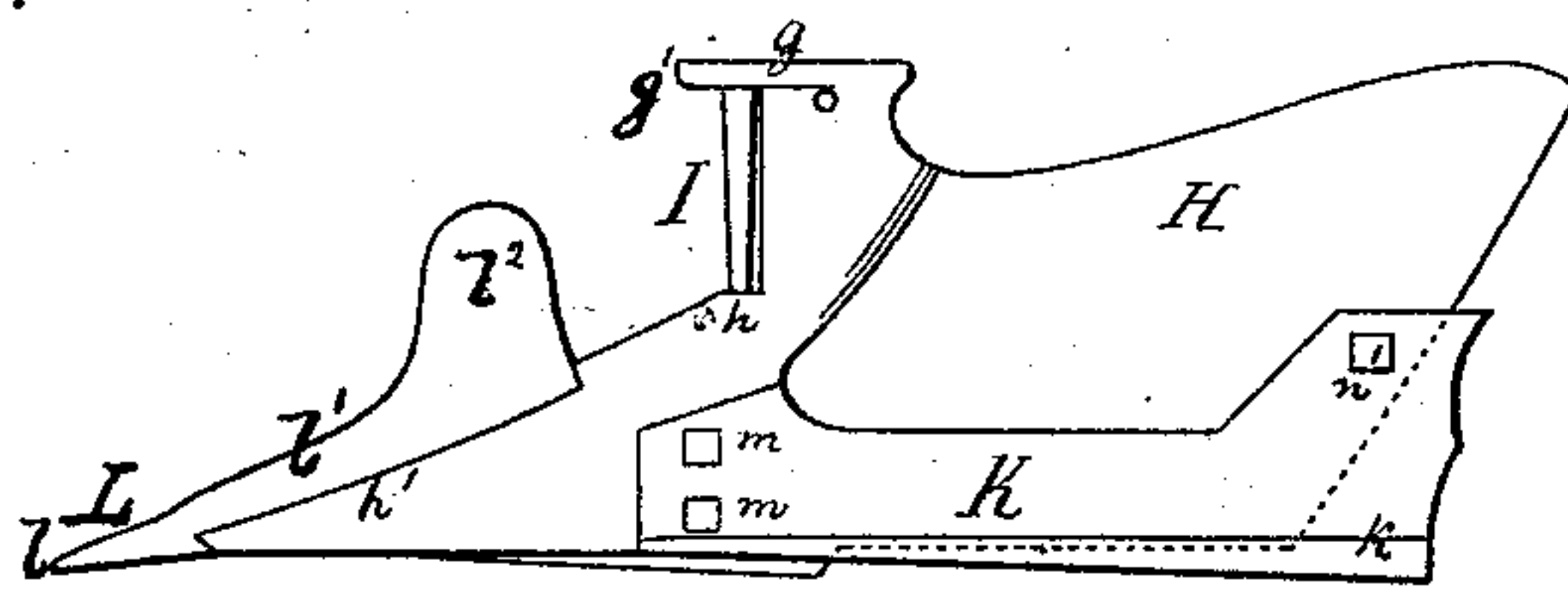


Fig. 3.

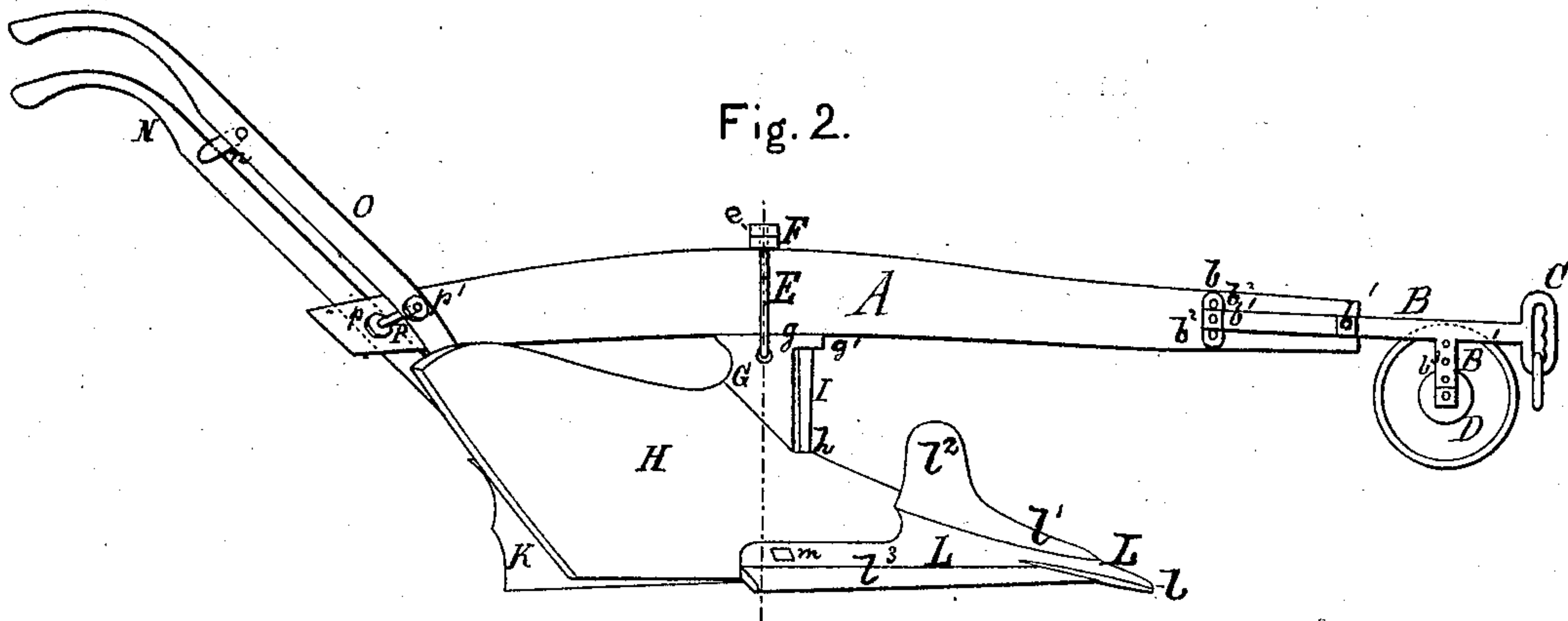


Fig. 2.

WITNESSES

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HARRISON JONES, OF RIPLEY, MAINE.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 149,314, dated April 7, 1874; application filed May 31, 1873.

To all whom it may concern:

Be it known that I, HARRISON JONES, of Ripley, in the county of Somerset and State of Maine, have invented a new and valuable Improvement in Plows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of my improved plow by a top view. Fig. 2 is an elevation of the same. Figs. 3 and 4 are detailed views of the same.

My invention relates to plows; and it consists in the novel construction and arrangement of the parts, as will be hereinafter more fully described and claimed.

The object of my invention is to make a plow which works easily and without clogging, and wears very little in proportion to the wear of other plows differently constructed.

In the drawings, A represents a plow-beam, of ordinary construction, to the front end of which a couple of draw-bars, B, with T-shaped ends *b* are attached, their front ends being united into a head bearing an inclined or diagonal clevis, C. The said draw-bars are fastened to the plow-beam with two bolts, *b*¹, of which the rear one may be changed into the different hole *b*² in the T-shaped ends *b* of the draw-bars, the front bolt *b*¹ remaining in its place, whereby the clevis and the truck-pulley C, which is attached to the draw-bars by two pendent arms, B', are either lowered or raised and the plow is either caused to plow less or more below the surface of the ground. An independent adjustment of the pulley D is afforded by a number of holes, *b*³, in the arms B, into which the bearing-bolt *d* of the pulley may be inserted. A U-shaped bolt, E, with a dog-plate, F, and two nuts, *e*, secures the plow to the beam A by passing through the standard G under its head-plate *g*. The standard G is united with the mold-board H, which has a warped surface, consisting of straight horizontal lines, so arranged that a number of vertical sections result in a number of straight section-lines with different inclinations, beginning with a very pointed angle at the front of

the plow and ending with an obtuse angle behind. In front of the standard G, between two bearings, *g*¹ and *h*, an upright roller of conical shape, I, is inserted with its small diameter down. The land-side K and the point L are attached to the mold-board by an angular inner clamp-plate, M, and clamp-screws *m*. The point L consists of the point proper *l*, which has a cutting-edge in front and a knife-shaped ridge, *l*¹, on the land-side, which suddenly rises, forming a broad blade, *l*², with a cutting-edge in front. From the base of the blade *l*² the metal forms the continuation of the mold-board until near the base of the plow, where it ends with a horizontal knife, *l*³. The land-side K is inclined from its base up toward the mold-board, and it is provided at the base with a rib, *k*, which tapers off toward the front of the plow. The mold-board H forms the continuation of the land-side from their junction toward the point L, where it forms a sty, by allowing the point to project. The ridge *l*¹ and the cutting-blade *l*² have the same inclination toward the mold-board as the land-side, which greatly facilitates the molding and casting of the same parts without impairing their efficiency.

In repairing or exchanging the abovesaid parts for new ones there is no necessity for a very neat fit, as the said projections have to contend with all the side friction of the plow.

The formation of the mold-board H keeps the bottom side of the turned-up soil from crowding onto the metal and clogging it, thereby giving much less labor to the teams. The ridge *l*¹ serves to gradually and easily sever the soil-band from the remaining soil, and the blade *l*² will bring the said operation to an abrupt termination when it is time for the soil to leave the edge of the land-side. If the soil-band should be interrupted by breakage, or otherwise show a very rugged edge, and for that reason be very apt to run against the plow-standard, the roller I will be struck instead, and, by giving way to the thrust, will ward off the soil and throw it back on the mold-board.

To prevent the soil from climbing up against the roller I, I make it conical with the large diameter above, whereby, on account of the difference in the circumferential speed, the

soil loses its hold on the roller and drops on the mold-board.

The handles N and O are connected by two wooden braces, *n* and *o*, the latter one forming a stay between the mold-board and the land-side. The handle O is inserted at the lower end into a socket, *o*¹, on the inside of the mold-board, and near the top of the same a clamp-screw, *o*², secures the handle to the mold-board. The handle N is, at its lower extremity, fastened to the land-side by a clamp-bolt, *n*¹, and is inserted into a slot, *a*, at the end of the beam A. A bolt, P, is passed through the beam A and the handle N, and fastened by two clamp-nuts, *p*, and, by being fastened in the same manner to the handle O with the nuts *p*¹, forms a very stiff and powerful connection between the two handles. The beam A, by being fastened to the plow-standard without inserted bolts or mortised parts, is left as strong as possible, and the clevis, being diagonally inclined, serves the purpose of vertical adjustment and the purpose of horizontal adjustment, which two are an imperative necessity when the depth of the plowing varies, as the side pressure on the horizontal knife *l*³ and on the lower part of the mold-board H tends more or less to throw the plow out of its direction. The horizontal knife *l*³ is very thin, which facilitates the chilling of the metal when cast, and which serves to make it enter the ground, and sever it with great ease as it meets the mold-board at an angle. The soil continues its course at the angle of the cutting-edge on the knife *l*³ with-

out touching the greater part of the said knife and a part of the mold-board near the angle of meeting above described.

The plow is essentially different from other plows on account of its length and the acute-ness of the angles of the severing or cutting parts, which, far from being disadvantageous, makes my plow, in connection with its other-wise peculiar construction, a very perfect and light implement.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. On a plow-beam, A, of common construction, the strap B with the diagonal clevis C, the T-shaped ends *b* with adjusting-holes *b*² and bolts *b*¹, the arms B' with adjusting-holes *b*³, and the truck-pulley D, substantially as specified.

2. The plow-point cast in one piece, having the point *l*, the ground-knife *l*³, with horizontal cutting-edge, the ridge *l*¹ and the blade *l*², joined to the mold-board by forming lateral angles or corners with the same, substantially as and for the purposes described.

3. In a plow, the arrangement of the clevis C in a diagonal position, for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HARRISON JONES.

Witnesses:

PULASKI MCCRILLIS,
E. M. TIBBETTS.