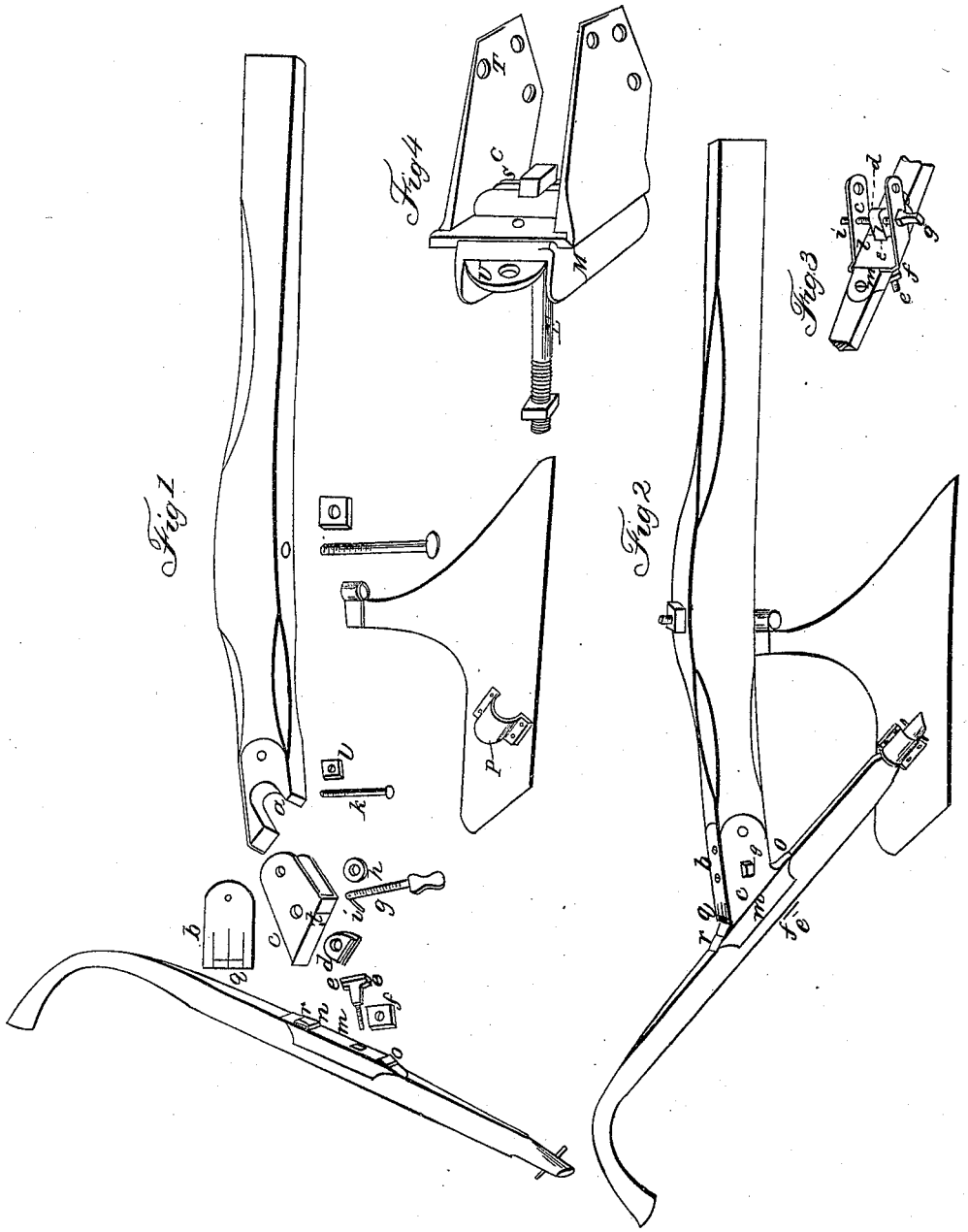
D. ANTHONY.

Plow.

No. 4,549.

Patented May 30, 1846.



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IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. **4,549**, dated May 30, 1846.

To all whom it may concern:

Be it known that I, DAVID ANTHONY, Sr., of the village of Union Springs, in the county of Cayuga and State of New York, have invented a new and useful Improvement in Plows, whereby the width of the furrow-slice is graduated by means of a screw-bolt passing through or other power applied to the hinder end of the beam, of which the following is a full and exact description, which description is made with reference to the drawings hereunto annexed; and I hereby ask that said drawings may be taken and considered as part of this specification.

First as to Figure 1 of said drawings. The drawings in this figure represent several parts of a plow—to wit., the beam, the standard and landside, and the screw-bolt by which the standard is fastened to the beam, the left-hand handle or stilt of the plow, and also the several parts of the improvement or invention claimed as new.

a represents the end of the beam, hollowed out so as to receive the nut and head of the screw-bolt *e* and *d*.

b represents a flat piece of wrought or cast iron or other metal, which is placed upon and securely fastened to the upper side of the end of the beam, reaching to the end flush and extending upon the beam from six inches to one foot, for the purpose of strengthening the same. This is fastened to the beam by screws or bolts passing through the same and screwed or riveted, so as to keep it snug and tight to its place. This piece should be let into the wood of the beam, so as to present a smooth and even surface therewith.

c represents a metal case or covering, made of cast or wrought iron or any other metal, by which the end and two of the sides (neither the upper nor the under side) of the end of the beam are covered or incased, extending along the sides of the beam from six inches to one foot, for the purpose of strengthening the same. The part which covers the end of the beam passes flush upon or a little over and beyond the metal piece *b*, which is placed upon the top of the end of the beam, as above mentioned. The same part also passes a little below the lower side of the end of the beam, so as the better to hold the end of the beam to its place and prevent it from moving upward or downward, which object is obtained by inserting the upper and lower end of this piece into the notches which are formed upon the piece which incases three of the sides of the left-hand handle or stilt of the plow, as seen at *n* and *o* of this drawing. The parts of this covering which incase the sides of the end of the beam are fastened to the beam by a bolt or screw, which passes through the beam horizontally, and is fastened by means of a head upon one side of the beam and a screw, or by means of riveting upon the other side. A horizontal slit or orifice, *t*, is made in the end of this piece, extending horizontally the whole width thereof, and of sufficient width to allow the body of the screw-bolt *e* to pass through the same and to fit loosely therein. A hole is made in each of the side pieces of this casing, so as to admit the passage of the screw-bolt *g*, as shown by the drawing.

d represents the nut through which the screw *g* passes. (See Fig. 3.) This nut is placed in the hollow or cavity of the end of the beam, (represented at *a*.) This nut is made with a depression in the lower end thereof, (see Fig. 3,) which faces the opening in the end of the casing *c*, and which forms a kind of mortise or groove to receive the upper end of the head of the screw-bolt *e*.

e represents a screw-bolt, of a square form (it may be made of any other desirable form) except the head and screw end thereof. This screw-bolt passes through the horizontal slit or orifice *t* in the end of the casing *c*, and has a head which forms a square shoulder to and with the inside of said end piece. The upper part of the head of this screw-bolt is made V-shaped (inverted) or tongue-shaped, and plays or fits into the mortise or groove formed in the lower end of the nut *d*. This screw-bolt *e* also passes through the left-side handle or stilt of the plow, where the end of the beam meets the same, as shown in Fig. 2, and draws and holds the beam and said handle together by means of the screw on the lower end thereof, as shown at *e f* in said Fig. 2, and the shoulder upon the head thereof, which is drawn against the inside of said end piece of said casing *c*. This screw-bolt *e* should pass through the center of said handle, perpendicularly therewith, or nearly so.

f represents the nut used upon the lower or screw end of the last above-described screw-

bolt *e*. This nut should be turned so as to loosen the end of the beam from the handle when it is intended to alter the position of the beam, by turning the screw-bolt *g*. At other times it should be securely and tightly screwed up, so as to hold the end of the beam firmly to said handle. The screw which fastens the standard of the plow to the beam should also be loosened when the position of the beam is being moved.

g represents a hand or thumb screw or screw-bolt, which passes horizontally through the sides of the casing *c*, and through the hollow or cavity made at the end of the beam *a*, and through the nut *d*, which lies within such cavity *a*, Fig. 1, for that purpose. The end of this screw-bolt *g* upon the one side of said casing *c* is made with a shoulder to fit square with and upon the outside of that side of said casing *c*, and is elongated and made of any desirable form, so as to be taken hold of by the hand or by a wrench, for the purpose of turning the same. The other end thereof extends through and beyond the other side of said casing *c*, and has a hole through the same, for the purpose of admitting a pin, *i*, (see Fig. 3,) to fasten and prevent it from being drawn back. A screw is cut upon this screw-bolt, extending from near the shoulder at one end to near the place where it (the screw-bolt *g*) reaches the inside of the casing *c* upon the other end. By turning this screw-bolt *g* either way, as the case may require, the nut *d*, through which the screw of this screw-bolt *g* passes, being stationary and forming, with the end of the screw-bolt *e*, a mortise and tenon or groove and tongue, as represented in Fig. 3, and said screw-bolt *e*, passing through the said left-hand handle or stilt of the plow, and fitting the hole through which it passes closely, and being therefore also stationary, and said left-hand handle or stilt of the plow being also stationary and permanent in its position with reference to the other parts of the plow, and the said screw-bolt *g* passing through the beam of the plow, near the hinder end thereof, horizontally, and being fastened so as to clamp or clasp the sides of said beam on one side by the shoulder of said screw-bolt *g*, and on the other by the washer *h*, lying between the pin *i*, that passes through the hole in the end of said screw-bolt *g* and the side of the casing *c*—hence when said screw-bolt *g* is turned the end of the beam where it meets or presses against said left-hand handle or stilt of the plow is moved horizontally or sidewise, either way, according to the direction in which said screw-bolt *g* is turned, which moves the other end of the beam in a contrary direction, thus increasing or diminishing the width of the furrow-slice at the will of the person operating. This screw-bolt *g* should be made of good wrought iron, and should be at least one-half inch in diameter.

h represents the nut or washer, which is used between the pin in the end of the screw-bolt *g* and the side of the casing *c*.

i represents the pin which passes through the end of the screw-bolt *g* to prevent the same from being drawn back. (See Fig. 3)

k represents a screw-bolt which passes through the two sides of the casing *c* and the beam, near the forward end of said casing *c*, so as to fasten those sides of said casing *c* snug and tight to the beam. This may also be done by a bolt with head on one end, to be fastened by riveting at the other end.

l represents the nut for the screw upon the end of the screw-bolt *k*.

m represents a casing made of metal so as to fit three sides of the left-hand handle or stilt of the plow, as shown in Fig. 1. Near the upper and lower ends of the upper side of this, where the upper and lower parts of the end of the casing of the end of the beam *c* touches this casing of the handle *m*, notches are cast or made upon, and should form a part of, this casing *m*, as shown at *n* and *o*, so as to fit to and clasp snugly the said upper and lower parts of the end of said casing *c*, and thus prevent the hind end of the beam of the plow from moving upward and downward, and still permit that end of the beam, when the screw upon the end of the screw-bolt *e* is lowered, to move horizontally or sidewise in obedience to the movement caused by the turning of the screw upon the screw-bolt *g*. Through this casing *m* is an aperture corresponding in shape and size with the shape and size of the screw-bolt *e*, which passes through it and should fit it snugly.

The other parts of the drawings represented in Fig. 1 represent certain parts of the plow as now usually made, which it is unnecessary to describe, inasmuch as nothing therein is claimed as new.

Second. Fig. 2 in the annexed drawings represents an inside view of parts of the plow with the improvement claimed affixed thereto, in which *q* represents a scale for showing the angle of the beam to suit the draft of one, two, or three horses, and *r* an index.

Fig. 3 is a perspective view of the before-described parts put together or in connection.

Fig. 4 is a perspective view of a modification of the before-described principle of shifting the beam, in which C is the case; M, the box; E, the screw-clamp; S, a slot in the case to admit the clamp-screw. T are apertures to admit screws for fastening the case to the beam. U is a hole to admit a bolt for securing the box to the handle of the plow.

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

The combination of the case *c*, box *m*, screw *g*, and nut *d*, and clamp *e*, constructed and arranged in the manner and for the purpose above described, and as represented in Figs. 1, 2, and 3.

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