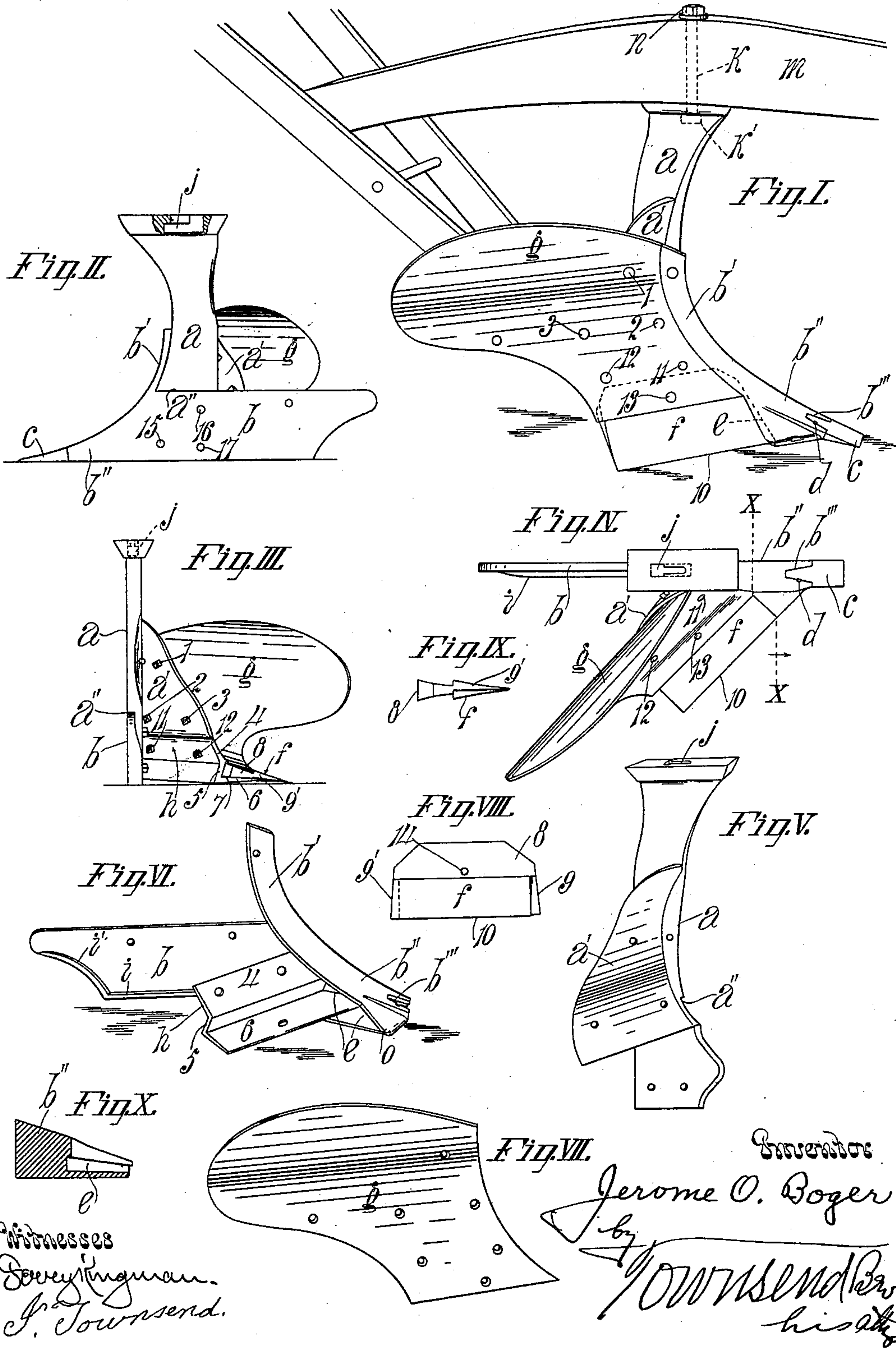


J. O. BOGER.
 PLOW.

(Application filed Sept. 27, 1900.)

(No Model.)



Witnesses
 S. J. Kingman.
 J. Townsend.

Inventor:
 Jerome O. Boger
 by Townsend Bros.
 his atty.

UNITED STATES PATENT OFFICE.

JEROME ODELL BOGER, OF REDLANDS, CALIFORNIA.

PLOW.

SPECIFICATION forming part of Letters Patent No. 679,014, dated July 23, 1901.

Application filed September 27, 1900. Serial No. 31,314. (No model.)

To all whom it may concern:

Be it known that I, JEROME ODELL BOGER, a citizen of the United States, residing at Redlands, in the county of San Bernardino and State of California, have invented a new and useful Improvement in Plows, of which the following is a specification.

The object of this invention is to provide a plow the various wearing parts of which are readily detachable, thus to enable the user to renew the different wearing parts independently as they become worn at different periods—that is to say, different parts of a plow have greater or less length of life according to the amount of friction upon said parts. For instance, the share will become worn out before the moldboard, and the rear part of the moldboard will become worn to a different degree from that of the front of the moldboard, and the landside will wear to a different degree from the moldboard or share, and the point wears out more rapidly than any of the other parts. By my invention each of these parts can be renewed with great ease and convenience, and the share can be reversed when partly worn, thus to bring an unworn part of the share into position for cutting. I also provide a reinforcing-flange along the under edge of the landside projecting toward the moldboard, thus giving a broader bearing for the landside, with a minimum thickness of the body of the landside, and I also extend the flange upward and rearward at the rear end of the landside, thus furnishing a landside of greater length of bearing against the land than against the bottom of the furrow.

In the accompanying drawings I have illustrated my invention, some of the views being in a different scale from others of the views for convenience of placing the drawings without crowding within the limits of a single sheet.

Figure I is a view of a plow embodying my invention looking at the moldboard of the plow. Portions of the handles and beam are broken away to contract the view. Fig. II is a view of the invention on a similar scale looking at the landside of the plow, the beam and handles being omitted. Fig. III is a rear view of the invention shown in Fig. II. Fig. IV is a plan view of the invention shown in

Figs. II and III. Fig. V is a perspective view of the standard detached. Fig. VI is a perspective view of the combined landside moldboard front extension, with rearwardly-projecting arm for attachment to the moldboard and to form therewith a share-holding socket. Fig. VII is a view of the moldboard main section detached. Fig. VIII is a plan of the share detached. Fig. IX is an end elevation of the share detached. Fig. X is a sectional detail on line X, Fig. IV, looking in the direction of the arrow to show the socket at the rear of the nose of the plow for seating the tongue on the end of the share.

a indicates the standard of the plow, the same being furnished with a lateral rearwardly-slanting moldboard-bracket *a'* and furnished at its lower end with a gain *a''* for the landside.

b indicates the landside, furnished with a moldboard front section *b'* and with a plow-point and share-holding nose *b''*. This combined landside moldboard front section and nose are fitted to the standard, the landside *b* being fitted in the gain *a''* of the standard and the front end of the nose *b''* being furnished with a socket *b'''* to receive the plow-point *c*, which is fastened therein in the ordinary way by a key *d*. The rear edge of the nose *b''* is furnished with a share-holding socket *e* for the front end of the detachable share *f*.

g indicates a moldboard fitted upon the moldboard-bracket *a'* and behind the rear edge of the moldboard front section *b'* and fastened by bolts 1 2 3 to the moldboard-holding bracket *a'*. The front edge of the moldboard *g* is fitted against the rear edge of the moldboard front section *b'* and forms a rearward continuation thereof.

h indicates a share-holding bracket or arm projecting rearwardly from the combined landside-moldboard front section and nose. It is formed in three bends or members 4 5 6. The upper member 4 is formed to fit the inner face of the moldboard *g*, and the lower member 6 is connected thereto by the middle member 5, which holds the inner edge of the lower member 6 away from the moldboard. The lower member 6 slopes from the landside, so that when the moldboard *g* is in place a dovetail seat 7 is formed between the

moldboard and the member 6. The share *f* is furnished with a dovetail shank 8 to slide into and to fit in the dovetail share-holding seat 7. The share is rabbeted to form a tongue 9 at one side of the end of the share to fit in the socket which extends into the rear edge of the nose of the plow. The share is preferably reversible in order to increase its life, and the reversible share is furnished opposite its cutting edge 10 with the dovetail shank and is furnished at the front end with the tongue 9, extending across the blade of the share at the under side of such blade and furnished at the rear end with a like tongue 9' on the upper side of the blade. By this arrangement the share is readily reversed when worn, thus to bring to the top the part originally undermost and to the front the part originally at the rear.

11 and 12 indicate bolts which fasten the arm or bracket *h* and moldboard together.

13 indicates a bolt passing through the moldboard *g*, the arm *h*, and the shank 8 of the share to fasten the share in place.

14 indicates the bolt-hole in the share for the bolt 13.

15, 16, and 17 indicate bolts connecting the standard and the landside together.

i indicates the base-flange of the landside.

This flange extends along the lower edge of the landside *b* and under the lower end of the standard to give perfect smoothness and to give greater wearing life to the landside and also to give the landside greater strength to resist lateral pressure.

i' indicates an upward and rearward extension of the flange or rib *i* at the rear end of the landside.

j indicates a bolt-locking socket in the upper end of the standard to receive the bolt *k*, which fastens the standard *a* to the plow-beam *m*. This bolt has a head *k'* on its lower end, and the bolt-socket *j* is large enough at one end to allow the head of the bolt to be inserted into the socket, and the rest of the mouth of the socket *j* is just wide enough to receive the body of the bolt and extends in the form of a slot which is enlarged at the bottom to allow the head to slide therein.

This enlargement is indicated by the dotted lines in Fig. IV.

In practice the head of the bolt *k* will be inserted into the large portion of the socket *j*, and the body of the bolt will then be brought into the narrow portion of said socket, and the plow-beam *m* will be brought into position with said bolt passing through the plow-beam and secured by the nut *n*, thus forming a strong connection between the standard *a* and the plow-beam, while the head of the bolt is out of sight.

Any of the parts which may become worn can readily be detached and replaced with new. When the plowshare becomes worn at its rear corner, the bolt 13 will be withdrawn and the plowshare slipped out of its socket and turned end for end, thus bringing the previ-

ously undermost side uppermost and the unworn front portion to the rear, thus bringing the unworn cutting portion of the share to the most efficient position.

The rear lip *o* of the nose projects over the forward tongue 9 of the share, thus making a smooth joint.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A plow comprising a standard furnished with a lateral rearwardly-slanting moldboard-bracket, and furnished at its lower end with a gain for the landside; a landside furnished with a moldboard front section and a point and share holding nose and fitted to the front of the standard and fastened in the landside-gain, and furnished at the front end of the nose with a socket for the plow-point, and at the rear edge of the nose with a share-holding socket for the front end of the share; a moldboard fitted to the moldboard-bracket and against the rear edge of the moldboard front section; a plowshare fitted to and extending from the lower edge of the moldboard and seated in the share-holding socket; and means for fastening the inner edge of the share to the moldboard.

2. A plow comprising a standard furnished with a lateral rearwardly-slanting moldboard-bracket and furnished at its lower end with a gain for the landside; a landside furnished with a moldboard front section and a point and share holder and fitted to the front of the standard and fastened in the landside-gain and furnished at the front with a socket for the plow-point and at the rear edge of the front with a share-holding socket for the front end of the share; a moldboard fastened to the moldboard-bracket; a share-holding bracket at the lower edge of the moldboard and arranged to provide a dovetail share-holding seat; and a detachable share seated in said seat and the share-holding socket.

3. A plow furnished at the lower edge of its moldboard with a dovetail groove; a share furnished with a dovetail tongue to fit said groove; and means for fastening the tongue in said groove.

4. In a plow, the combination of a plow-standard; a laterally rearwardly slanting moldboard-bracket fastened to said standard; a landside fastened to said standard and furnished with a moldboard-section and a rearwardly-extending arm to form a share-holding bracket; a moldboard fastened to the standard and to the said arm, the lower portion of said arm extending to form, in connection with the moldboard, a dovetail seat; and a detachable share mounted in such seat.

5. The reversible share furnished opposite its cutting edge with a dovetail shank and furnished at the front end with a tongue extending across the blade of the share at the under side of such blade; and furnished at the rear end with a like tongue on the upper side of the blade.

6. A plow comprising a standard furnished

with a gain; and a landside fastened in said gain and furnished with a bottom flange to extend under the standard.

- 5 7. A plow comprising a standard; a moldboard front section fastened to the standard; a moldboard fastened to the standard and to said section and fitted against the rear edge of such section; and a detachable share fastened to the moldboard.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, at Redlands, in the county of San Bernardino and State of California, this 19th day of September, 1900.

JEROME ODELL BOGER.

Witnesses:

CHAS. E. TRUESDELL,

J. A. RIVERA.