

J. PORTEOUS.
VINEYARD PLOW.
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1,029,765.

Patented June 18, 1912.

Fig. 1.

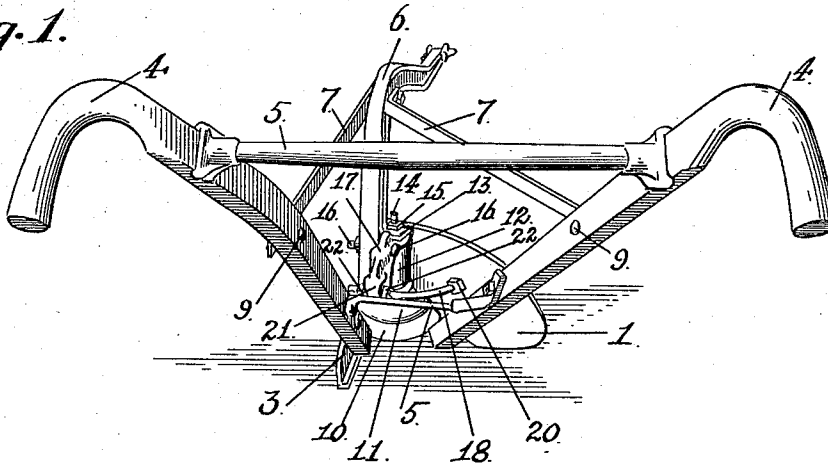
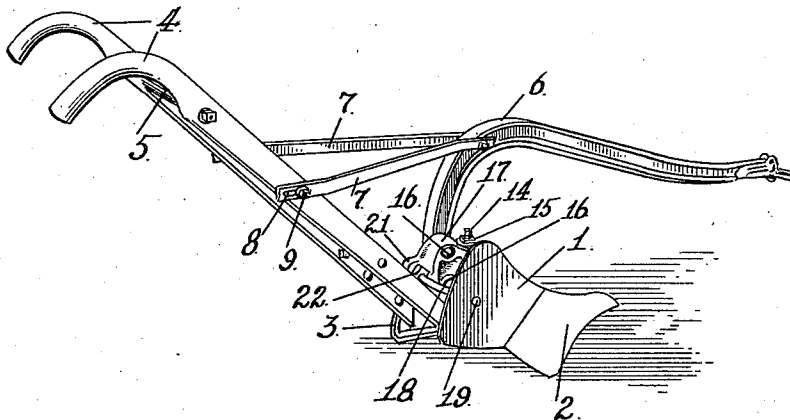


Fig. 2.



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UNITED STATES PATENT OFFICE.

JAMES PORTEOUS, OF FRESNO, CALIFORNIA.

VINEYARD-PLOW.

1,029,765.

Specification of Letters Patent.

Patented June 18, 1912.

Application filed February 8, 1911. Serial No. 607,223.

To all whom it may concern:

Be it known that I, JAMES PORTEOUS, a citizen of the United States, residing at Fresno, in the county of Fresno and State of California, have invented certain new and useful Improvements in Vineyard-Plows, of which the following is a specification.

My invention relates to that class of plows intended for use in vineyards and orchards, by reason of the adaptability of the beam to be turned to one side in order to allow the plow to work up close to the vines or trees, while the horses travel clear. In this type of plow there is some form of pivotal connection between the plow-body and the rear end of the beam, said connection being so constructed that it can be tightened with a view of holding the beam in the position to which it is adjusted. The strain is so great, however, under working conditions that it is found necessary to supplement such tightening of the pivotal connection by other means of a character adapted to rigidly hold the parts in the position to which they are set. Such supplemental means in their best expression should not only serve as a brace to hold the parts, but should also be of an adjustable character in order to serve in various positions of adjustment.

It is the object of my invention to provide such adjustable holding means in a plow of this type, which means in addition to its function of bracing and permitting adjustment, shall be simple, strong, durable and easily operatable; and to this end my invention consists in the novel combinations of parts in a vineyard or orchard plow which I shall now fully describe and claim by reference to the accompanying drawings, in which—

Figure 1 is a perspective rear view of my improved plow. Fig. 2 is a perspective view of the same from the mold-board side.

1 is the mold-board, 2 is the share and 3 is the landside of a plow-body.

4 are the handles connected to the plow-body, 5 are braces between the handles, 6 is the beam, and 7 are tie-braces extending between the beam and handles, being connected with the latter by means of slots 8 in the braces playing over bolts 9 in the handles.

The pivoted connection of the beam with the plow-body is formed by the bearing 10 on the frog of the plow body. Upon this bearing fits the socket foot 11 of a sleeve 12. The upper end of the sleeve bears under a

bracket 13 bolted to the mold-board. A pivot bolt 14 passes down through the bracket 13, the sleeve 12, its foot 11, the bearing 10 of the frog and is headed under said frog, its upper end receiving a nut 15. The rear end of the beam is rigidly secured by bolts 16 to a rearwardly extending flange 17 of the sleeve 12. As thus far described, it will readily be seen that if the tie-braces 7 are loosened to play on the bolts 9, and if the nut 15 be loosened to permit the sleeve 12 to turn on its axis, the beam may be turned to an angle on either side of the fore and aft line of the plow, which turning of the beam is, as I have before mentioned, the purpose sought. When the beam is turned to whatever angle may be desired, and the various parts tightened by their nuts, it might be supposed that the beam would be held sufficiently tight, but in practice this is not the fact for the strain is too great. A further bracing connection has been found necessary. This I provide in the shape of a strong rod 18 which at one end is connected rigidly in some suitable manner with some portion of the plow structure, either with the handles or with the mold-board, and at the other end is adjustably connected with the beam structure. In the form here shown the brace rod 18, at one end is provided with a head 19 countersunk in the mold-board, a jam-nut 20 being fitted on said end just within the mold-board. The other end of the brace rod is slidably fitted through an ear 21 on the flange 17 of the sleeve 12, and receives jam nuts 22, one on each side of said ear. The brace rod 18 is curved to the required arc of pivotal movement. When the nuts 22 are set up the brace rod is tight and supplementing the other tightening devices of the structure, will hold the beam rigidly in place against all strains to which it may be subjected. When it is necessary to readjust or reset the beam, the nuts 22 are manipulated to let the brace rod 18 slide through the ear 21 of the sleeve 12 the required distance, and then the nuts are again set up. Thus a simple, effective and easily operated adjustable brace is provided to control, regulate and fix the pivotal action of the parts of the plow.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is—

1. In a plow body having a mold board, frog and land side, handles connected to the

body, a beam, tie braces extending between the handles and beam and adjustably connected thereto, a bearing on the frog, a sleeve having a socket foot fitted on said bearing, a bracket on the mold board overlying said sleeve, and a pivot bolt passing through said bracket sleeve and foot, the said beam being secured to an extension of said sleeve.

10 2. In a plow body having a mold board, frog and land side, handles connected to the body, a beam, tie braces extending between the handles and beam and having an adjustable connection at one end with one
15 of said parts, a bearing on the frog, a sleeve having a socket foot fitted on said bearing, a bracket on the mold board overlying said sleeve, a pivot bolt passing through said bracket sleeve and foot, the said beam being
20 secured to an extension of said sleeve, and a transversely extending curved rod secured at one end to the plow body and adjustably connected at its opposite end to the beam.

3. In a plow body having a mold board, frog and land side, handles connected to
25 the body, a beam, tie braces extending between the handles and beam and adjustably connected thereto, a bearing on the frog, a sleeve having a socket foot fitted on said
30 bearing, a bracket on the mold board overlying said sleeve, a pivot bolt passing through said bracket sleeve and foot, the said beam being secured to an extension of said sleeve, and a transversely extending
35 curved rod rigidly connected at one end to the mold board and loosely passing through an integral extension of the sleeve, and securing nuts for said rod.

In testimony whereof I have signed my name to this specification in the presence
40 of two subscribing witnesses.

JAMES PORTEOUS.

Witnesses:

H. O. DAVIS,
IRENE WILSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."