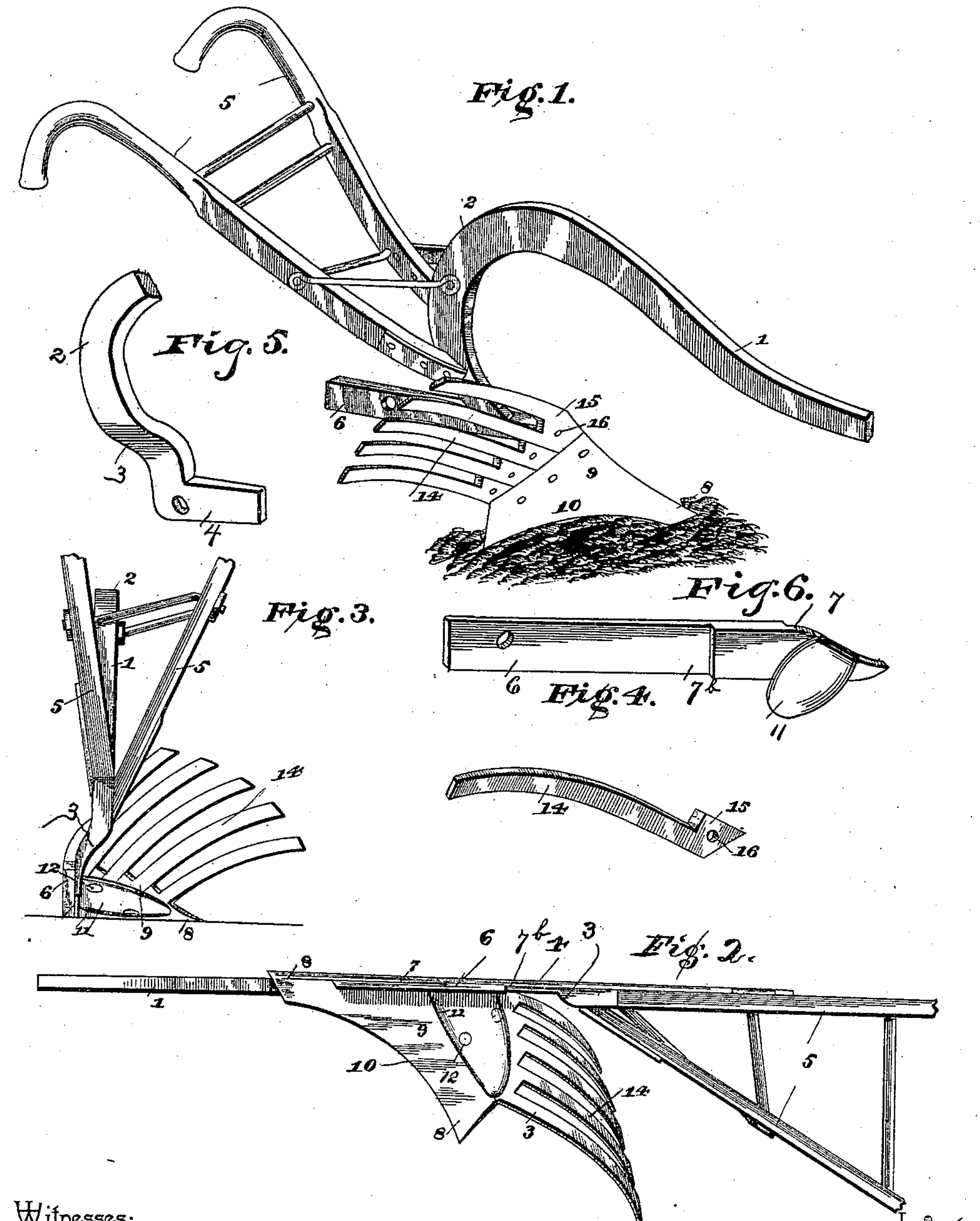
(No Model.)

A. F. BALL.

PLOW.

No. 447,521. Patented Mar. 3, 1891.



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UNITED STATES PATENT OFFICE.

ALFRED FINE BALL, OF ROCK HILL, TEXAS.

PLOW.

SPECIFICATION forming part of Letters Patent No. 447,521, dated March 3, 1891.

Application filed August 16, 1890. Serial No. 362,208. (No model.)

To all whom it may concern:

Be it known that I, ALFRED FINE BALL, a citizen of the United States, residing at Rock Hill, in the county of Collin and State of Texas, have invented a new and useful Plow, of which the following is a specification.

This invention has relation to improvements in plows.

The objects in view are to provide a plow designed and constructed to be strong and durable, and to positively avoid all clogging or sticking of the dirt thereupon or upon any of its parts, whereby said plow is especially adapted for operation in certain localities in which black and sticky earth or soil abounds.

With the above objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a perspective view of a plow constructed in accordance with my invention. Fig. 2 is a bottom plan of the mold-board, landside, and frog. Fig. 3 is a rear elevation. Fig. 4 is a detail in perspective of one of the spring-tines. Fig. 5 is a detail view of the lower end of the plow-standard. Fig. 6 is a detail perspective view of the landside.

Like numerals of reference indicate like parts in all the figures.

1 designates the plow-beam of "goose-neck" pattern, the rear end of which is downwardly bent to form the standard 2, which standard, near its lower end, is provided with an offset 3, which throws that portion thereof usually extending above the landside of the plow inward or toward the mold-board, as will hereinafter appear. The lower end of the standard is also provided with a forwardly-disposed foot 4.

5 designates the two handles, connected by the usual rungs and braces, said handles being converged toward their forward ends and securely bolted to the standard.

6 designates the landside of the plow, the front end of which is recessed, as at 7, to receive the point 8 of the mold-board 9, which point is bolted from the inner side thereto, the outer end of the bolt being flush with the surface of the point, as are also all of the bolts hereinafter mentioned, whereby the same offer no obstruction to a smooth movement of the plow and do not act to engage the sticky soil and retain the same. The landside is also provided in rear of the recess 7^b to accommodate the foot 4 of the standard, which is bolted in said recess.

The mold-board is provided with the usual oval shear-edge 10, and is braced by the frog of the landside, which latter extends well up under the point of the plow, so as to support the same, and is provided with a laterally-inclined wing 11, to which the mold-board is securely bolted, as at 12. The upper edge of the wing of the frog extends above the upper edge of the mold-board, and bolted thereto and forming a continuation of the mold-board is a series of spring-tines 14. These tines are resilient and partake of the curvature of the mold-board, being disposed toward the rear and from the mold-board side of the plow, as shown, and are adapted to vibrate as the dirt passes thereover. Each of the tines is in this instance provided at its butt-end with a plate 15, through which is passed a bolt 16, whereby it is secured in position above the mold-board. The plates are of sufficient width to lend the proper distance or space between the tines, and said tines are reduced toward their free ends and the space increased as you approach those points. If desired, the entire series of tines may be formed integral; but I prefer the construction herein shown, whereby a single broken tine may be readily removed and replaced without disturbing the remainder of the series.

In operation the dirt passes up over the mold-board in the usual way until it reaches the narrow vibrating independently-moving tines, which tines serve to jar and break the clods, thus not only pulverizing to a certain degree said clods, but also insuring the freeing of the tines of all dirt.

A plow constructed after the above, it will be observed, will necessarily be lighter running, for the reason that there is positively no clogging of the parts, the plow passing smoothly along the furrow, the work will

give better results, and the entire structure will be stronger and more durable.

Having described my invention, what I claim is—

The combination of the plow-beam having the standard 2, provided with offset 3 and foot 4, extending forwardly from the latter, the landside having recesses 7 and 7^b and wing 11, the mold-board having the point 8 seated in the recess 7 of the landside, and the tines 14, having plates 15, the latter and the mold-board being bolted upon the wing 11 with their meeting edges flush, all as herein described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ALFRED his + mark FINE BALL.

Witnesses:
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