(No Model.)

W. O. JOHNSON.

SHOVEL PLOW.

No. 265,324. Patented Oct. 3, 1882.

Fig. 1.

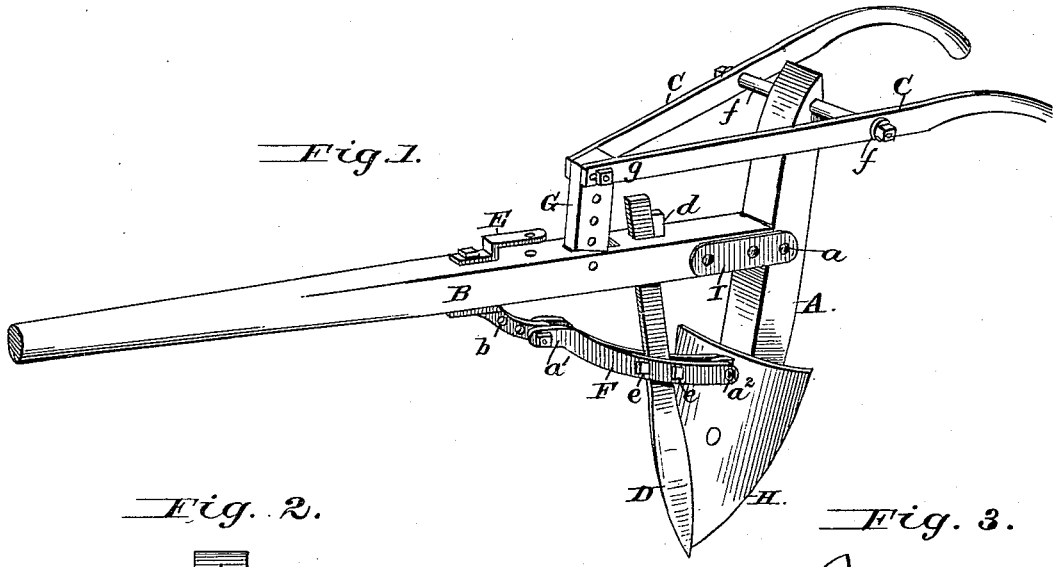


Fig. 2.

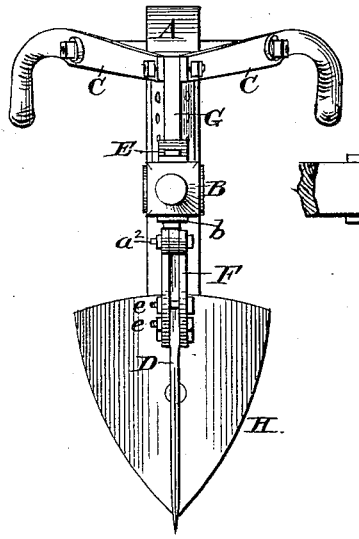


Fig. 3.

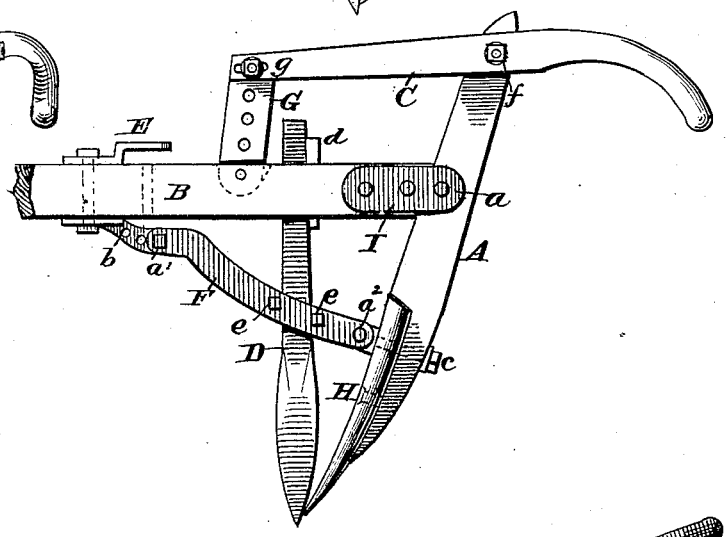
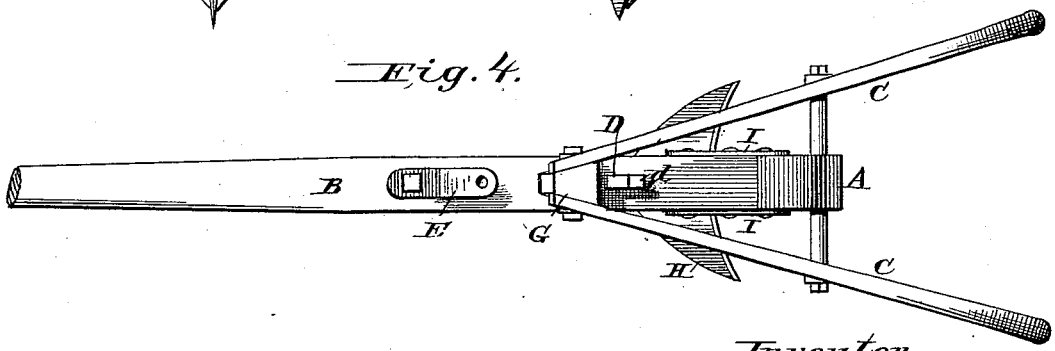


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM O. JOHNSON, OF ALMA, MICHIGAN, ASSIGNOR OF ONE-HALF TO FRED. D. ADAMS, OF SAME PLACE.

SHOVEL-PLOW.

SPECIFICATION forming part of Letters Patent No. 265,324, dated October 3, 1882.

Application filed July 1, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. JOHNSON, a citizen of the United States, residing at Alma, in the county of Gratiot, Michigan, have invented a new and useful Improvement in Shovel-Plows, of which the following is a specification.

This invention relates to those shovel-plows for cultivating the soil which are made adjustable to adapt them to different conditions of ground and the requirements of different crops, and to adapt them to be readily controlled by the plowman.

My present invention consists in certain novel combinations of peculiarly constructed and arranged parts, as hereinafter described and claimed.

Figure 1 of the accompanying drawings is a perspective view of a shovel-plow illustrating this invention. Fig. 2 is a front view of the same; Fig. 3, a side view, and Fig. 4 a plan or top view.

Like letters of reference indicate corresponding parts in the several figures.

The share-standard A is attached at the rear extremity of a long pole-beam, B, by a pair of side plates securely bolted to the latter, a horizontal bolt or rivet, *a*, passing through the standard and side plates, so as to form a loose or hinge joint.

At a proper distance in front of the standard A the whiffletree-clip E is bolted to the top of the beam, and its permanent bolt or bolts are made to pass through and attach a perforated sector-bracket, *b*, which projects rearwardly beneath the beam.

To the lower end of the standard A the shovel or share H is attached by two or more bolts, one of which is an eyebolt, *c*, and from this bolt to the bracket *b* a brace, F, extends, being connected thereto, respectively, by bolts a' a^2. The brace F is by preference double, or composed of parallel thin bars, so as to distribute and equalize the severe strain on the bolts a' a^2, and thus avoid frequent breakages, and also to facilitate its use for supporting a colter, D, which passes between the parts of the brace, and is secured at its upper end by a wedge, *d*, or its equivalent, within a vertical mortise in the beam B, and at the brace F by a pair of bolts, *e e*, passing through the latter in front of the colter and behind it, as shown. Provision is thus made for setting both the share-standard and the colter at different angles by the same means, while the independent vertical adjustment of the latter is not interfered with, and all the parts are adapted to sustain any strain to which they can ordinarily be subjected. I do not limit myself to the use of a double brace in the accomplishment of these results, as a single brace could be employed.

A pair of handles, C C, are attached to the ends of a pivotal cross-bar, *f*, near the upper end of the standard A and converge therefrom to a standard, G, of wedge-shape in cross section, and having a vertical series of holes to receive a screw-bolt, *g*, by which the front ends of both handles are clamped to said standard G at any desired height, so as to raise and lower the rear ends of the handles, or the handles proper, to make them suit the plowman. The front ends of the handles are slotted, as shown, to accommodate the bolt *g* in its different positions. A slot may take the place of the vertical series of holes in the standard G, if preferred. The standard G is itself adjusted as to angle when the angle of the standard B is changed. To provide for this adjustment the lower end of the standard G is rounded, as shown in dotted lines in Fig. 3, and fastened by a transverse pivotal bolt, which may be loosened and retightened at will.

The beam B may be short, and provided with a clevis at its extremity, instead of being adapted to extend through the neck-yoke of a team, as represented; and the eyebolt *c* may be located above the share H, so as to facilitate removing the latter, if preferred.

I do not claim broadly a hinged share-standard with an adjustable brace to govern its pitch, nor handles adjustable as to height; but I know of no anticipation of my improved means for adjusting the share-standard and handles and fastening them in their respective positions, as hereinafter claimed.

Having thus described my said invention, I claim as new and desire to protect by Letters Patent—

1. The combination of the share-standard

A and beam B, united by a hinge-joint, and provided respectively with the eyebolt *c* and sector-bracket *b*, the latter having a series of adjusting-holes, and the diagonal brace F, united to said eyebolt and bracket by screw-bolts, and composed of parallel flat bars, whereby the strain on said bolts is equalized, and a colter-socket is formed below the beam, as herein specified.

2. The combination of the share-standard A and beam B, united by a hinge joint, and provided respectively with the eyebolt *c* and sector-bracket *b*, the latter having a series of adjusting-holes, a diagonal brace or braces, F, united to said eyebolt and bracket by screw-bolts, and a colter, D, fastened at its upper end within a vertical mortise in the beam B, and supported below the beam by said brace or braces F, whereby the shovel or share and the colter may be adjusted and supported as to angle simultaneously and by the same means, in the manner set forth.

3. In combination with the share-standard A and beam B, united by a hinge-joint, the devices for adjusting the former as to angle, and the handles C, united by a pivotal cross-bar *f* to the extended upper end of said standard A, substantially as herein specified, the adjusting-standard G, secured within a recess in the top of said beam by a pivotal bolt, and projecting upward between the front ends of the handles, and united with the latter by a vertically-adjustable clamping-bolt, *g*, substantially as shown, for fastening the handles at different heights independently of the pitch of the share-standard, in the manner set forth.

WILLIAM O. JOHNSON.

Witnesses:
E. F. QUINN,
FRED D. ADAMS.