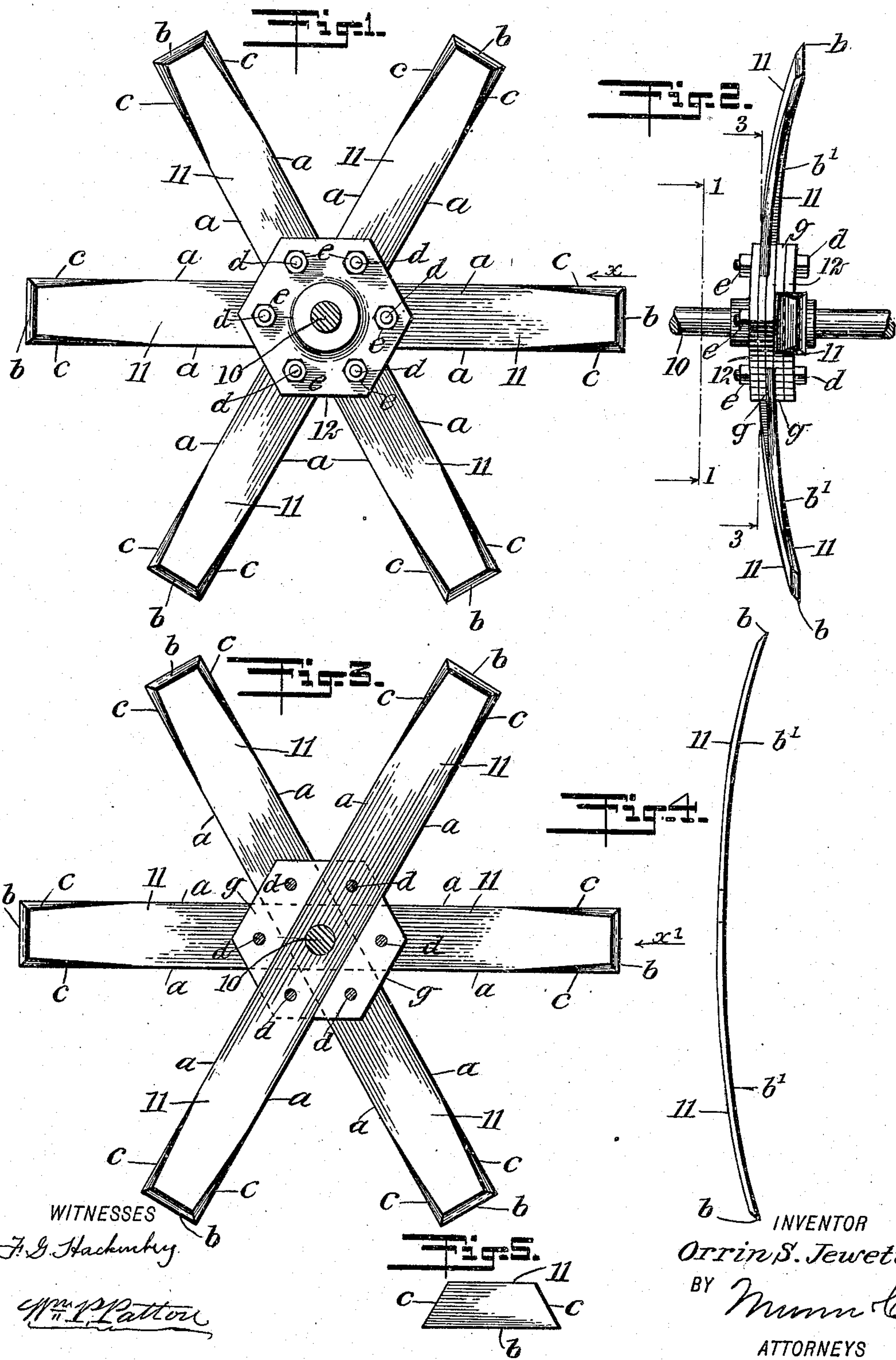


O. S. JEWETT.
 PLOW BLADE.
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PLOW-BLADE.

No. 930,763.

Specification of Letters Patent.

Patented Aug. 10, 1909.

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To all whom it may concern:

Be it known that I, ORRIN S. JEWETT, a citizen of the United States, and a resident of Lordsburg, in the county of Los Angeles and State of California, have invented a new and Improved Plow-Blade, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide a plow blade of novel construction, which in suitable number are radially arranged and secured in lapped engagement with each other and with clamping disks, whereby a spading wheel is produced that in series is secured on an axle at suitable intervals, said axle being journaled on a frame that is adapted for progressive movement.

A further object is to so space apart the ends of the plow blades, both in sequence and laterally, that each blade will be embedded in the soil and effect a stirring action therein as the spading wheels are progressively moved by suitable means, thus leaving the ground operated upon in a loose condition and avoiding the formation of a compact "sole" at the bottom of a furrow; and a further object is to so construct a plow blade that it will be adapted for assembling radially on a suitable support, that adapts the assembled blades for reversal in position on an axle or a like support, and thus be adapted for engagement with the soil in opposite directions.

The invention consists in the novel construction and combination of parts, as is hereinafter described and defined in the appended claim.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of a spading wheel formed of a plurality of the improved plow blades clamped together and radially arranged, and an axle in section whereon the spading wheel is mounted, the section being taken on the line 1—1 in Fig. 2, and the wheel seen in the direction of the arrows in said figure; Fig. 2 is an edge view of the spading wheel, seen in the direction of the arrow x in Fig. 1; Fig. 3 is a partly sectional side view of the spading wheel and axle whereon said wheel is mounted, the section being taken substantially on the line 3—3 in Fig. 2; Fig. 4 is an edge view of the im-

proved blade; and Fig. 5 is an enlarged end view of the same, seen in the direction of the arrow x' in Fig. 3.

The improved plow blades that will now be described, when arranged together in radial order afford a spading wheel, which will with a minimum of resistance deeply penetrate the soil when the wheel is rotatably and progressively moved, and leave it well pulverized the entire depth of embedment had by the blades, and furthermore avoid the formation of surface ridges.

Referring to the drawings, 10 indicates a shaft or axle whereon a completed spading wheel is mounted and secured, the construction of which will now be described.

The improved plow blades that are designated by the numeral 11 are formed in pairs integrally of plate metal, each pair of blades consisting of an elongated rectangularly-edged bar of steel or other suitable metal of a proper width and thickness, the length thereof being equal to that given to two plow blades that are thus disposed in alignment with each other. The pair of blades have parallel side edges a , and their ends b are disposed at right angles with said side edges, each edge at an end of a blade being beveled to render it sharp, said sharp edges being formed at the same sides of the pair of plow blades, as is shown clearly in the drawings. At or near the beveled edges b on the ends of the blades 11 and merging into said edges, the side edges a of each blade are beveled so as to render said edges nearly sharp where they join the beveled edges b , as shown at c in Figs. 1 and 3.

The preferred number of plow blades 11 for a spading wheel is six, and the three pairs of integral blades are centrally lapped one upon the other, and at exact central points the three pairs are perforated for the reception of the shaft or axle 10. The integral pairs of plow blades 11 are each curved a proper equal degree laterally, as indicated at b' in Figs. 2 and 4. Two similar clamping disks 12, 12, preferably having hexagonal contour and dished sides, are provided for clamping the lapped pairs of plow blades together, the concave side of one clamping disk being seated upon the corresponding convex side of an adjacent pair of plow blades, and the convex side of the other clamping disk imposed upon the concave surface of the pair of blades 11 upon which said disk is to be clamped.

To afford a proper bearing surface for the disks 12, washer plates *g* are seated at each side of each pair of plow blades, whereon the disks are seated, one pair of washer plates being shown in Fig. 3. In the clamping disks 12, 12, and the plow blades 11, as well as the washer plates *g*, perforations are formed, said perforations, preferably six in number, being respectively disposed opposite an angular corner of the clamping disks. In the perforations mentioned, an equal number of bolts *d* are inserted, having heads that bear upon one of the clamping disks 12, the nuts *e* on their threaded opposite ends, which when forcibly screwed upon the ends of the bolts, serve to bind the plow blades, washer plates and disks together, disposing the plow blades radially and at equal distances apart at their free ends *b*.

It will be seen that in operation, as each pair of blades 11 have a lapped engagement with a like pair thereof, said pairs of blades will each cut the soil in a furrow at the side of an adjacent pair, so that they act independently on the earth, but all co-act as a spading wheel. This feature is very advantageous in that it reduces the friction so as to render the draft light, and also adapts the blades for thoroughly agitating the soil penetrated by the blades.

As already indicated, the improvement when arranged as a spading wheel, may be mounted in series at proper distances apart on an axle or shaft and secured thereon, so

as to provide a gang of such wheels, the axle or shaft as usual being journaled at its ends in a suitable frame, not shown, which in service is progressively moved.

It will be understood that in operation the improvement radically differs from that of a disk plow, the edges of which are notched, as in the improvement the plow blades act independently, penetrate the soil readily with a shearing action, and have just the right stirring action on account of their curvature, to thoroughly loosen the ground as deeply as the blades penetrate.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A spading wheel for a plow, comprising arched bars arranged in cross relation, with the ends of one spaced from the ends of the other at equal distances, clamping disks on each side of the blades, said blades and disks being provided with registering openings, and bolts traversing the openings, said blades and disks having a central opening for the purpose set forth, and washer plates seated between the disks and the blades.

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

ORRIN S. JEWETT.

Witnesses:

A. C. ABBOTT,
C. W. GUTHRE.