

956,768.

2 SHEETS--SHEET 1.

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 PLOWSHARE FOR GRUBBING PLOWS, &c.
 APPLICATION FILED NOV. 10, 1909.

956,768.

Patented May 3, 1910.

2 SHEETS—SHEET 2.

Fig. 4.

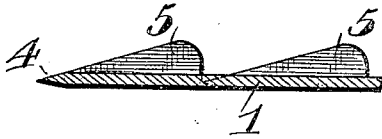


Fig. 5.

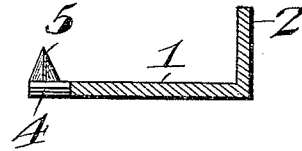


Fig. 6.

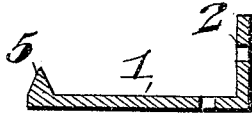


Fig. 7.

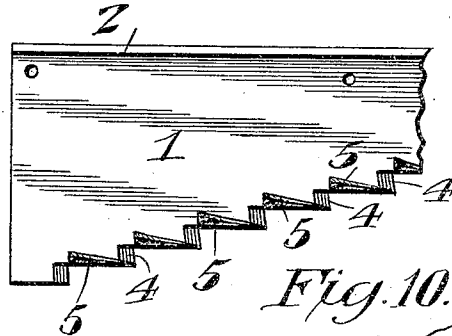


Fig. 8.

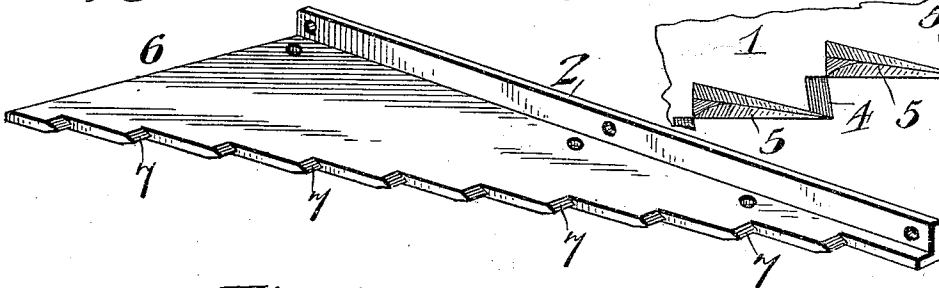


Fig. 10.

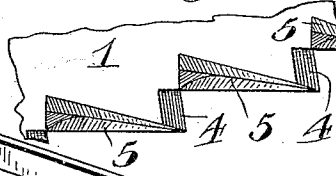
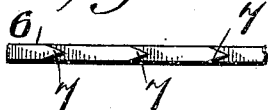


Fig. 9.



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UNITED STATES PATENT OFFICE.

CHRISTMAN D. JAUER, OF KARNES CITY, TEXAS.

PLOWSHARE FOR GRUBBING-PLOWS, &c.

956,768.

Specification of Letters Patent.

Patented May 3, 1910.

Application filed November 10, 1909. Serial No. 527,337.

To all whom it may concern:

Be it known that I, CHRISTMAN D. JAUER, a citizen of the United States, residing at Karnes City, in the county of Karnes and State of Texas, have invented a new and useful Plowshare for Grubbing-Plows, &c., of which the following is a specification.

The invention relates to a plowshare for grubbing and other plows.

The object of the present invention is to provide a plowshare for use on grubbing and other plows, particularly in preparing land for cultivation after the same has been cleared of timber, and capable of enabling the plow to cut and tear up the stumps.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a perspective view of a grubbing plow, equipped with plowshares, constructed in accordance with this invention. Fig. 2 is an enlarged perspective view of one of the plowshares. Fig. 3 is a reverse plan view of the same. Figs. 4 to 6 inclusive are detail sectional views, illustrating the construction of the plowshare. Fig. 7 is a plan view of a portion of the plowshare. Fig. 8 is a perspective view of a plowshare, illustrating another form of the invention. Fig. 9 is a side view of a portion of the plowshare shown in Fig. 8. Fig. 10 is an enlarged detail view of a portion of the plowshare, illustrating the construction of the upwardly extending blades.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a plowshare consisting of a thin horizontal plate or blade of tool steel, or other suitable material of approximately triangular shape, provided at the inner edge with a vertical attaching flange 2, which is secured between vertical plates 3 of a grubbing plow 4^a, described and claimed in my co-pending application, No. 477,266, filed Feb. 11, 1909. The grubbing plow is provided at each side with a plowshare 1, as de-

scribed in the aforesaid application, and the outer edge of the share 1 extends forwardly and inwardly, being arranged at an acute angle to the side face of the plate 3. The said outer edge of the plowshare is equipped with horizontally disposed forwardly projecting cutting teeth 4, beveled at the upper and lower faces of the plowshare and forming a cutting edge, which is located at an intermediate point between the planes of the upper and lower faces of the plowshare. The cutting edge, which is disposed transversely of the plowshare substantially at right angles to the median line of the plow, is located near the center of the thickness of the metal, and it cuts the wood centrally of the kerf or split portion and presses the severed fibers or portions of wood both upward and downward, producing an equal pressure on the cutting teeth and preventing the same from bending in either direction or breaking. This arrangement increases the durability and efficiency of the cutting teeth. Also the edges of the horizontal cutting teeth by being arranged approximately at right angles to the median line of the plow increases the strength of the teeth as the latter are not as pointed or tapered, as illustrated in the said application.

The horizontal cutting teeth are arranged at regular intervals and the teeth at one side of the cutting plow are designed to be located directly opposite the teeth at the other side of the plow, so that but two teeth at a time will enter the wood of a stump and thereby enable the plow to be operated with comparatively little force, as explained in the said application. The horizontal cutting teeth may be arranged any distance apart, and they are provided with upwardly extending cutting blades or flanges 5, located in rear of the cutting edges of the teeth at the outer sides of the latter. The upwardly extending cutting blades or flanges taper forwardly and have oppositely inclined side faces, forming upper cutting edges, which incline downwardly and forwardly to the front edges of the cutting teeth. The said blades or flanges 5 are disposed in parallelism with each other and with the plane of the median line of the plow, and when the latter strikes the stump and penetrates the same, the teeth of the plowshare will cut a horizontal kerf in the stump, while the upwardly extending blades,

which operate longitudinally of the grain, sever and pull out the fibers of the wood at the points cut by the teeth, and the stump is thereby torn up and pulled to pieces.

5 The plow is designed to operate on stumps up to eight inches in diameter, and the distance between the horizontal cutting teeth and the size of the upwardly extending cutting blades or flanges will be varied to suit
10 the character of the wood to be operated on.

In Figs. 8 and 9 is illustrated another form of the invention, the plowshare 6 being equipped at its outer edge with horizontal cutting teeth 7 only, the upwardly extending cutting blades being omitted. The plowshare 6 is otherwise constructed similar to that heretofore described and consists of a thin forwardly tapered plate or blade. This form of plowshare is especially adapted for and will be found effective and advantageous in clearing land in which there are only small stumps to be encountered.

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

1. A plowshare of the class described consisting of a thin blade tapered forwardly and provided at its outer edge with teeth arranged to cut and tear up a stump.

30 2. A plowshare of the class described consisting of a thin forwardly tapered blade having a longitudinal attaching portion at its inner side edge and provided at its outer side edge with teeth disposed at an acute
35 angle to the attaching portion and arranged to cut and tear up a stump.

3. A plowshare of the class described consisting of a thin horizontal forwardly tapered blade having an approximately vertical attaching flange at its inner side and provided at its outer side with teeth disposed at an acute angle to the said flange and arranged to cut and tear up a stump.

4. A plowshare of the class described consisting of a thin blade having an angularly disposed edge provided at intervals with approximately horizontal teeth beveled to form cutting edges.

5. A plowshare of the class described consisting of a thin blade having an angularly disposed edge provided at intervals with approximately horizontal teeth beveled at the upper and lower faces of the blade to form intermediate cutting edges.

6. A plowshare of the class described consisting of a thin blade provided with approximately horizontal teeth arranged at intervals and beveled at the upper and lower faces of the plowshare to form a cutting edge located at an intermediate point between the planes of the said upper and lower faces to equalize the pressure and to force the wood upwardly and downwardly.

7. A plowshare of the class described consisting of a thin blade having an angularly

disposed edge provided at intervals with approximately horizontal teeth beveled at the upper and lower faces of the blade to form cutting edges disposed transversely of the plowshare and arranged at an intermediate point between the upper and lower faces of the plowshare to force the wood both upwardly and downwardly, whereby an equal pressure on the teeth is produced.

8. A plowshare of the class described consisting of a thin horizontal blade tapered forwardly and having a vertical attaching flange at its inner edge and provided at its outer edge with transversely disposed horizontal cutting teeth arranged approximately at right angles to the attaching flange and beveled at their upper and lower faces.

9. A plowshare of the class described provided at intervals with approximately horizontal teeth and having upwardly extending
85 blades.

10. A plowshare of the class described having an angularly disposed edge provided at intervals with approximately horizontal teeth and having approximately vertical
90 blades adapted to sever the fibers of the wood at the point cut by the teeth.

11. A plowshare of the class described provided at intervals with approximately horizontal teeth and having approximately
95 vertical blades disposed in parallelism.

12. A plowshare of the class described having an angularly disposed edge provided at intervals with approximately horizontal teeth and having approximately vertical
100 blades extending upward in rear of the front edges of the teeth.

13. A plowshare of the class described consisting of a horizontal plate having an angularly disposed edge and provided at intervals with approximately horizontal cutting teeth having transversely disposed cutting edges, said plowshare being also provided with upwardly extending cutting blades located in rear of the cutting edges
110 of the teeth and having upper cutting edges.

14. A plowshare of the class described consisting of a horizontal plate having an angularly disposed edge and provided at intervals with approximately horizontal cutting teeth having transversely disposed cutting edges, said plowshares being also provided with upwardly extending cutting blades located in rear of the cutting edges of the teeth and having oppositely inclined
120 side faces forming a top cutting edge.

15. A plowshare of the class described consisting of a horizontal plate having an angularly disposed edge and provided at intervals with approximately horizontal cutting teeth having transversely disposed cutting edges, said plowshares being also provided with upwardly extending cutting blades located in rear of the cutting edges of the teeth and having oppositely inclined
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side faces forming a top cutting edge, the latter being inclined toward the cutting edge of the adjacent tooth.

5 16. A plow of the class described including a horizontal plowshare having an angularly disposed edge and provided at intervals with approximately horizontal teeth and having approximately vertical blades.

10 17. A plow of the class described including a horizontal plowshare having an angularly disposed edge and provided at intervals with approximately horizontal teeth and having approximately vertical blades, the blades being disposed in parallelism.

15 18. A plow of the class described including a horizontal plowshare having an angularly disposed edge and provided at in-

tervals with approximately horizontal teeth and having approximately vertical blades extending upward in rear of the front edge 20 of the teeth and arranged in parallelism.

19. A plow of the class described including a plowshare having an angularly disposed edge provided at intervals with teeth and having upwardly extending blades tapered forwardly and provided with upper 25 cutting edges.

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

CHRISTMAN D. JAUER.

Witnesses:

J. W. CLAYTON,

W. H. BRINKOCTER.