2 Sheets—Sheet 1.

H. SKILLINGS.

Revolving Plow.

No. 198,163. **Patented Dec. 11, 1877.**

Fig. 1.

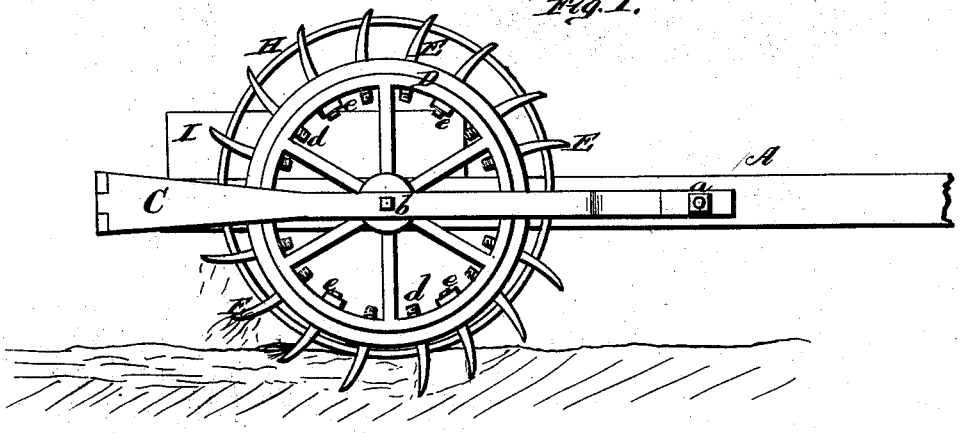
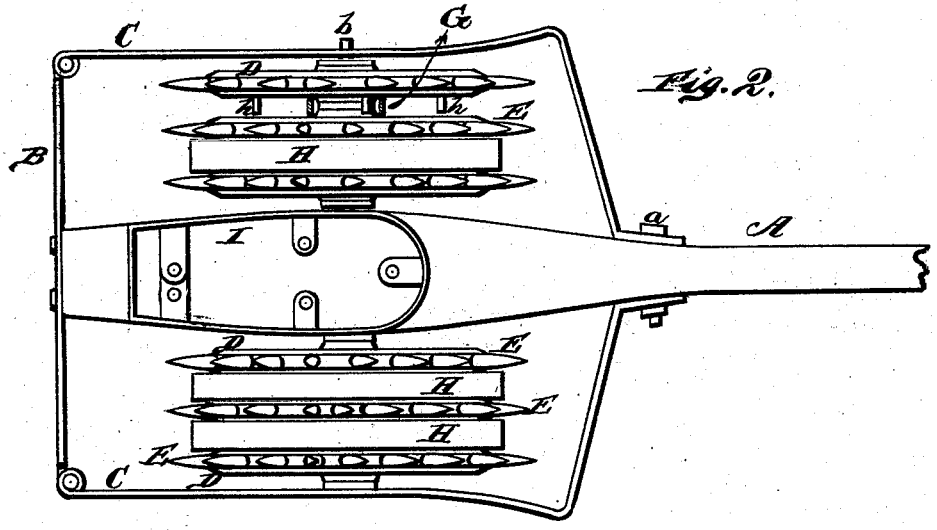


Fig. 2.



WITNESSES

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2 Sheets—Sheet 2.

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Revolving Plow.

No. 198,163. Patented Dec. 11, 1877.

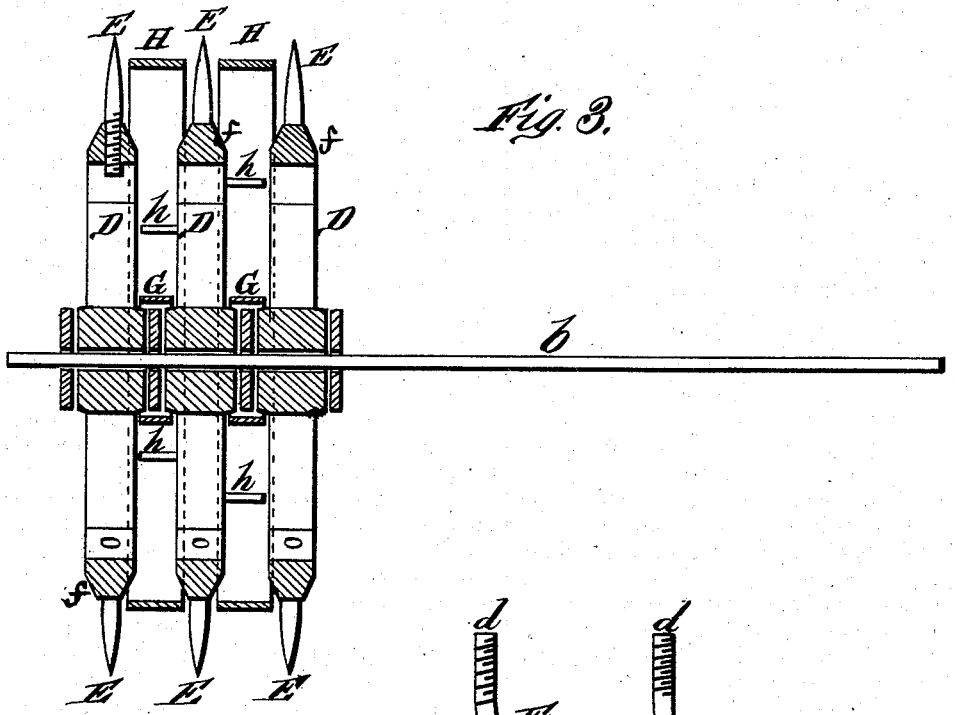


Fig. 3.

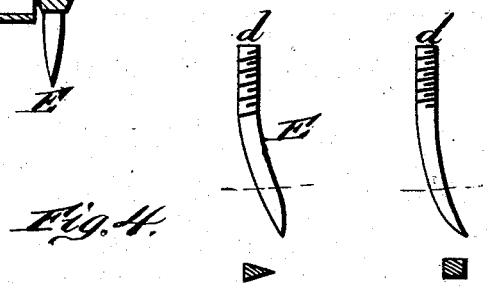
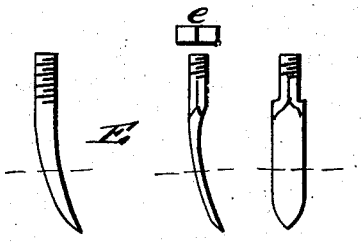


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

HIRAM SKILLINGS, OF HUTCHINSON, MINNESOTA.

IMPROVEMENT IN REVOLVING PLOWS.

Specification forming part of Letters Patent No. **198,163**, dated December 11, 1877; application filed October 13, 1877.

To all whom it may concern:

Be it known that I, HIRAM SKILLINGS, of Hutchinson, in the county of McLeod and State of Minnesota, have invented a new and valuable Improvement in Revolving Plows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my revolving plow. Fig. 2 is a plan view, Fig. 3 is a transverse vertical sectional view, and Fig. 4 a detail view, thereof.

The nature of my invention consists in the construction and arrangement of a revolving plow, as will be hereinafter more fully set forth, and pointed out in the claim.

The annexed drawings, to which reference is made, fully illustrate my invention.

A represents the pole or tongue, made wider or enlarged at its rear portion, to form, as it were, a narrow platform, to the rear end of which is permanently fastened a metal bar, B. This bar extends an equal distance on both sides of the pole, and to each end thereof is hinged another metal bar, C, which extends forward for a suitable distance, and is then bent inward to the pole, as shown, and the ends of the two bars C C fastened to the pole by a bolt, *a*. This constitutes the frame of the plow, either side of which can easily be opened when desired, for removing one or more of the wheels, or for other purposes.

b is the axle, which passes through the rear portion of the pole A, and has its end bearings in the bars C C of the frame.

Upon this axle, on each side of the pole, is placed a series of loose independent wheels, D D, made of cast-iron or other suitable material, and each wheel provided with a series of plows or spurs, E E.

These plows or spurs E are provided with shanks *d*, having exterior screw-threads, and are screwed into the rim of the wheel; or the shanks may be passed through the rim and fastened by nuts *e* on the inside thereof, in which latter case a portion of the shank should be made square, and the hole in the rim made to correspond, and thereby prevent the plow or spur from turning.

The face of the rim of the wheel D is to be made narrow and beveled, as shown in Fig. 3 of the drawings, or as wide only as the width of the plow, so as not to pack the earth between the wheels or on the face thereof.

Between the wheels, around the hubs, are placed loose bands or hoops G G, which prevent any dirt from getting in between them and onto the axle.

I also use large loose hoops H H between the wheels to throw off clogs. These hoops are made of larger diameter than the wheels, and are prevented from dropping too low between the wheels by means of the beveled rims *f* or cross-spurs *h*, set in the rims of said wheels.

On top of the pole A, nearly over the axle, is attached a ballast-receptacle, I, for weighting the machine.

As the plow moves forward in the field, the spades or spurs are, by the weight of the machine and the ballast, forced into the ground, and the faces of both the large loose hoops and the wheels are brought evenly to bear upon the surface of the ground, and, consequently, the hoops are thrown upward, so as to clear the spurs continually of all clods.

The plows, spades, or spurs E may be of any desired form or shape, according to the work intended to be done, adapting the machine to breaking, crossing, pulverizing, or subsoiling.

Any number of wheels may be used in one series or gang, and two or more gangs used in each machine.

What I claim as new, and desire to secure by Letters Patent, is—

The independently-rotating wheels D, having narrow and beveled rims, in combination with loose bands H, arranged between the wheels, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HIRAM SKILLINGS.

Witnesses:
D. D. KANE,
JOHN F. BLACKMAR.