

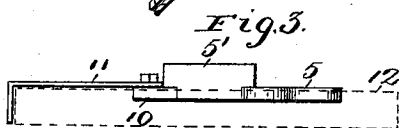
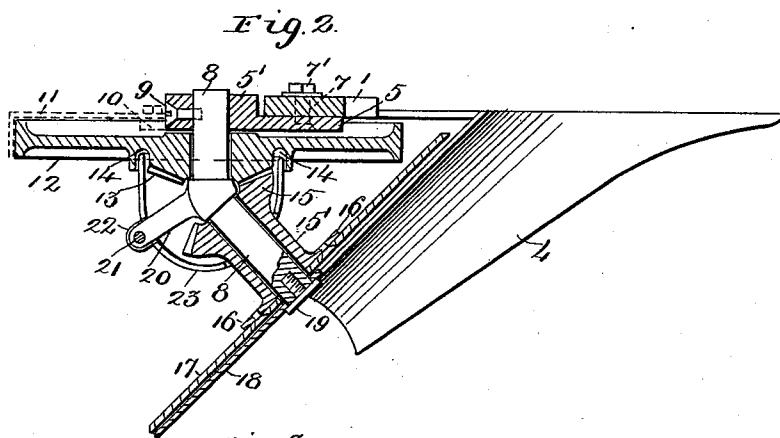
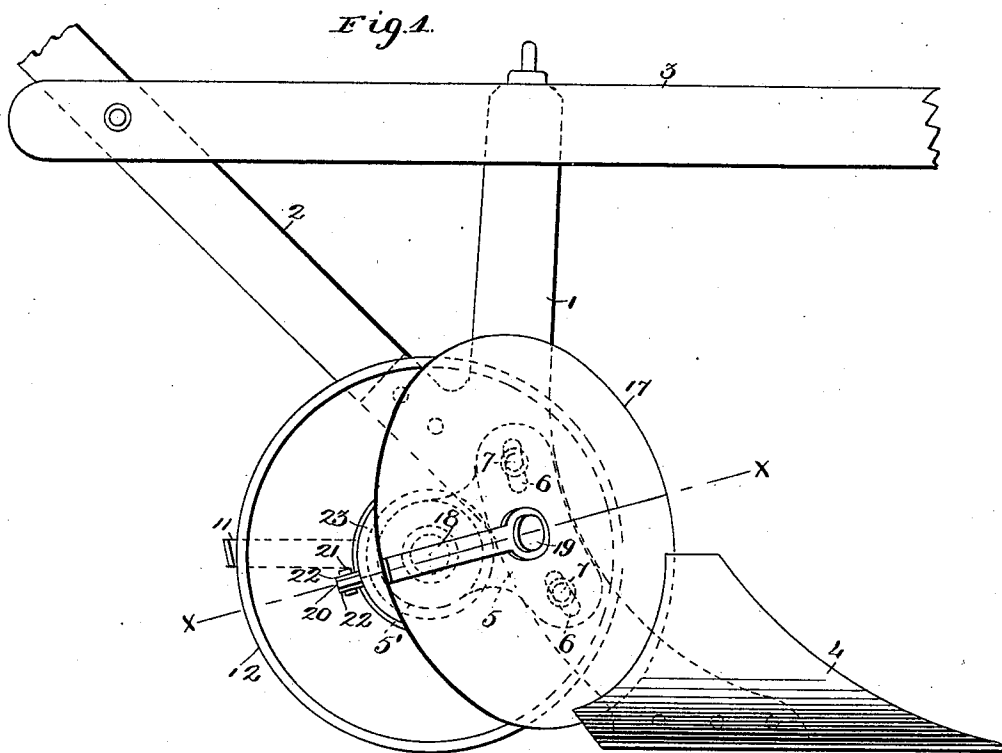
(No Model.)

2 Sheets—Sheet 1.

S. G. SEVIER.
PLOW.

No. 587,512.

Patented Aug. 3, 1897.



Witnesses

Alfred A. Matney
Chris Baer

Inventor

Samuel G. Sevier.

By *his* Attorneys

Keller & Starnes

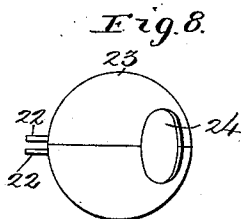
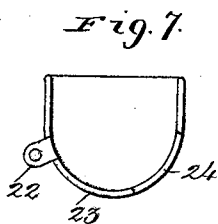
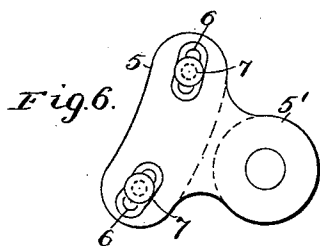
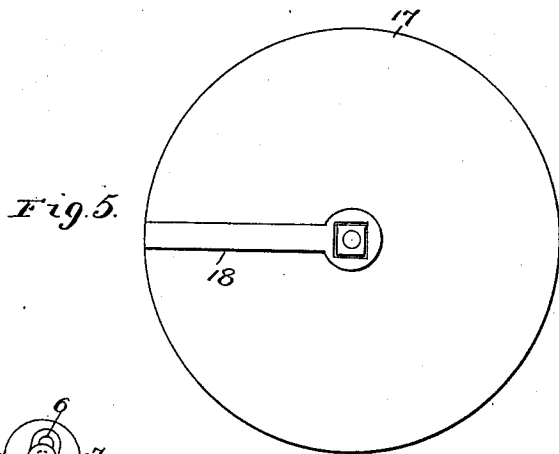
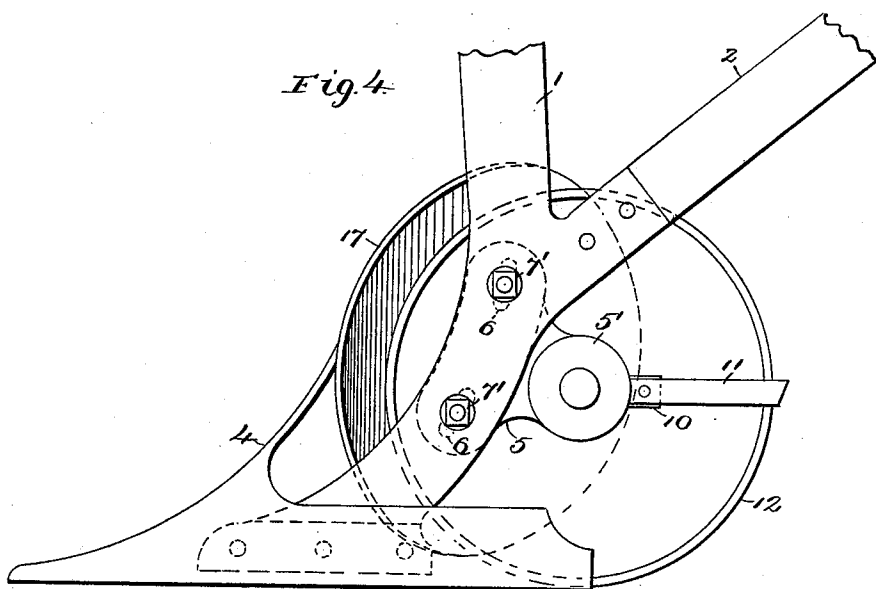
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2 Sheets—Sheet 2.

S. G. SEVIER.
PLOW.

No. 587,512.

Patented Aug. 3, 1897.



Witnesses
Alfred A. Mather
Chris Bassett

Inventor
Samuel G. Sevier.
By his Attorneys
Keller & Storer

UNITED STATES PATENT OFFICE.

SAMUEL G. SEVIER, OF OENAVILLE, TEXAS.

PLOW.

SPECIFICATION forming part of Letters Patent No. 587,512, dated August 3, 1897.

Application filed October 12, 1896. Serial No. 608,591. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL G. SEVIER, a citizen of the United States, residing at Oenaville, in the county of Bell and State of Texas, have invented certain new and useful Improvements in Plows, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in turning-plows; and it consists in the novel arrangement and combination of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is an elevation of one side of the plow. Fig. 2 is a section on *xx* of Fig. 1. Fig. 3 is a detail top view of the detachable and adjustable bracket by which the driving-wheel and revolving moldboard are carried. Fig. 4 is an elevation of the opposite side of the plow. Fig. 5 is a face elevation of the revolving moldboard. Fig. 6 is a detached view of the bracket shown in Fig. 3, but taken in face elevation. Fig. 7 is an elevation of one of the halves constituting the dirt-protecting cup or casing for the gearing, and Fig. 8 is a bottom plan view of the complete cup or the two halves assembled.

The general object of my invention is to construct a turning-plow wherein an adjustment in a vertical plane between the plowshare, on the one hand, and the driving-wheel and rotating moldboard, on the other hand, may be readily accomplished, the specific object thereof being to effect such adjustment in a simple mechanical manner, thereby materially cheapening the cost of construction of the plow. It is of course understood that such adjustments are necessary, according to the character and hardness of the soil passed over, different soils requiring to be plowed to different depths.

A further object is to effectively protect the gearing from any possible access of dirt from the surface over which the plow is passed.

In detail the invention may be described as follows:

Referring to the drawings, 1 represents a plow-frame made of one piece, to the rear end of which the handles 2 are secured, from which handles extends forwardly the plow-beam 3. To the curved basal portion of the frame is

secured the plowshare 4, of any approved design. Movably secured to the standard of the plow-frame at a suitable point above the lower edge thereof and adapted to be adjusted in a vertical plane along said frame is an independent detachable bracket or plate 5, the forward expanded portion of which is provided with suitable elongated slots 6, through which are adapted to be loosely passed the projecting headed portions of suitable bolts 7, carried by the frame, the heads of said bolts being adapted to be countersunk into the body of the bracket, so as to come flush with the surface thereof.

The vertical elevation of the bracket along the frame can be adjusted by first loosening the terminal nuts 7' of said bolts, moving the bracket to the desired position, and then firmly screwing the nuts against the body of the frame. The rearward extension or arm 5' of the bracket is adapted to support one member of an angular or bent axle 8, the latter being inserted into a suitable opening in the bracket and then secured by a bolt 9, passed from the outer edge of the arm and into a cavity or depression of the axle member, the head of the said securing-bolt being countersunk within the bracket.

Formed integrally with the outer end of the rearward extension 5' of the bracket is a lug 10, to which is secured one end of a scraping-arm 11, the scraping end of the latter cleansing at all times the periphery of the driving-wheel 12, mounted on the axle member adjacent to the bracket 5.

Forming a part of the driving-wheel 12 and embracing the axle member on which the wheel is mounted is a bevel gear-wheel or pinion 13, about the base of which is formed an annular groove or depression 14, for a purpose to be subsequently referred to. The bevel-pinion 13 meshes with a similar hollow bevel-pinion 15, mounted loosely on the second member of the bent axle, the said pinion 15 being provided with a tubular extension 15', to the basal flanged portion 16 of which the revolving moldboard 17 is secured. The outer projecting end of the member of the bent axle, by which the pinion 15 and moldboard 17, secured thereto, are carried, is square or polygonal, (see Fig. 5,) said polygonal end being adapted to fit a correspondingly poly-

onal opening of one end of a scraping-arm 18, the arm being secured firmly by a screw 19. The scraping-arm 18 of course cleanses the surface of the moldboard against which the earth thrown up by the plowshare impinges.

Projecting outwardly from the angle of the bent axle is an arm 20, through the outer end of which is passed transversely a pin 21, said pin being adapted to connect the projecting lugs 22 of the respective halves of a cup or casing 23, adapted to envelop and fully protect the gearing between the pinions 13 and 15. Each half of the cup is provided with a semicircular cut-away portion or opening 24 along the edge thereof for snugly embracing the tubular extension 15' of the pinion 15. The edge of the cup when properly mounted on the machine is adapted to enter and be received by the annular groove or depression 14 above referred to, whereby any dirt carried by the driving-wheel is deflected by the cup from the gearing with which it would otherwise come in contact.

It is apparent from the above that by reason of the adjustment of the bracket 5 along the frame 1 in a vertical plane the rearward extension or arm 5', by which the bent axle 8 is supported, is likewise adjusted. Accordingly the vertical adjustment of the drive-wheel and revolving moldboard mounted in said extension is simultaneously accomplished, the relative positions of the drive-wheel and moldboard and their respective scrapers remaining always the same.

It is further apparent that absolutely any and every particle of dirt or soil is kept from the gear mechanism, thus eliminating the danger of clogging the moving parts of the machine.

Having described my invention, what I claim is—

1. In a plow, a suitable frame, a plowshare carried by the same, an independent detachable bracket or plate carried by the standard of said frame and capable of vertical adjustment along the same, a bent axle secured to the bracket and adapted to support respectively the driving-wheel of the plow and the revolving moldboard, and means forming a part of said axle for supporting a suitable gear-protecting casing or cup, substantially as set forth.

2. In a plow, a suitable frame, a plowshare secured thereto, a bracket carried by the frame and capable of adjustment along the same in a vertical plane, a bent axle secured to the bracket, a driving-wheel mounted on one of the members of the axle, and having formed integrally therewith a bevel-pinion directly embracing the member, an annular groove formed at the base of the said pinion, a second pinion mounted on the second mem-

ber of the bent axle and having a tubular extension forming a part thereof and embracing the member on which said pinion is mounted, a flange formed at the extremity of said tubular extension, a moldboard secured to said flange, and a gear-protecting cup carried by the bent axle, the edge of the cup being received by the annular groove formed at the base of the pinion carried by the driving-wheels, substantially as set forth.

3. In a plow, a suitable frame, a bracket carried by the same and adjustable thereon in a vertical plane, a bent axle carried by the bracket, a driving-wheel having a pinion loosely mounted on one member of the bent axle, a revolving moldboard mounted on the second member of the bent axle, a bevel-pinion secured to the moldboard and meshing with the pinion carried by the driving-wheel, an arm projecting outwardly from the angle of the bent axle, a pin driven transversely through the outer end of the arm, a suitable gear-protecting cup composed of two parts or halves, each half having formed integral therewith a lug by which the respective halves are adapted to be secured to the transverse pin carried by the arm projecting from the angle of the bent axle, and each half having a substantially semicircular opening or cut-away portion for snugly embracing the bevel-pinion of the moldboard, and an annular groove or depression formed at the base of the pinion carried by the driving-wheel for receiving the edge of the cup, whereby all dirt carried up by the driving-wheel is deflected by the cup and the gearing between the cooperating pinions is protected, substantially as set forth.

4. In a plow, a suitable frame, an independent detachable bracket having an expanded portion, elongated openings or slots formed in the expanded portion, suitable bolts carried by the standard of the frame and adapted to enter the slots of the bracket, whereby the latter can be bodily and vertically adjusted along the frame, a rear extension or arm forming a part of the bracket, said extension being adapted to support the axle of the driving-wheel and revolving moldboard of the plow, substantially as set forth.

5. In a plow, a suitable bent axle adapted to support respectively the driving-wheel of the plow and a revolving moldboard, and means forming part of said axle for supporting a suitable gear-protecting casing or cup, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL G. SEVIER.

Witnesses:

ALFRED A. MATHEY,
EMIL STAREK.