

A. A. ALLEMAND.

GANG PLOW.

APPLICATION FILED MAY 23, 1910.

Patented Dec. 26, 1911.

1,012,577.

2 SHEETS-SHEET 1.

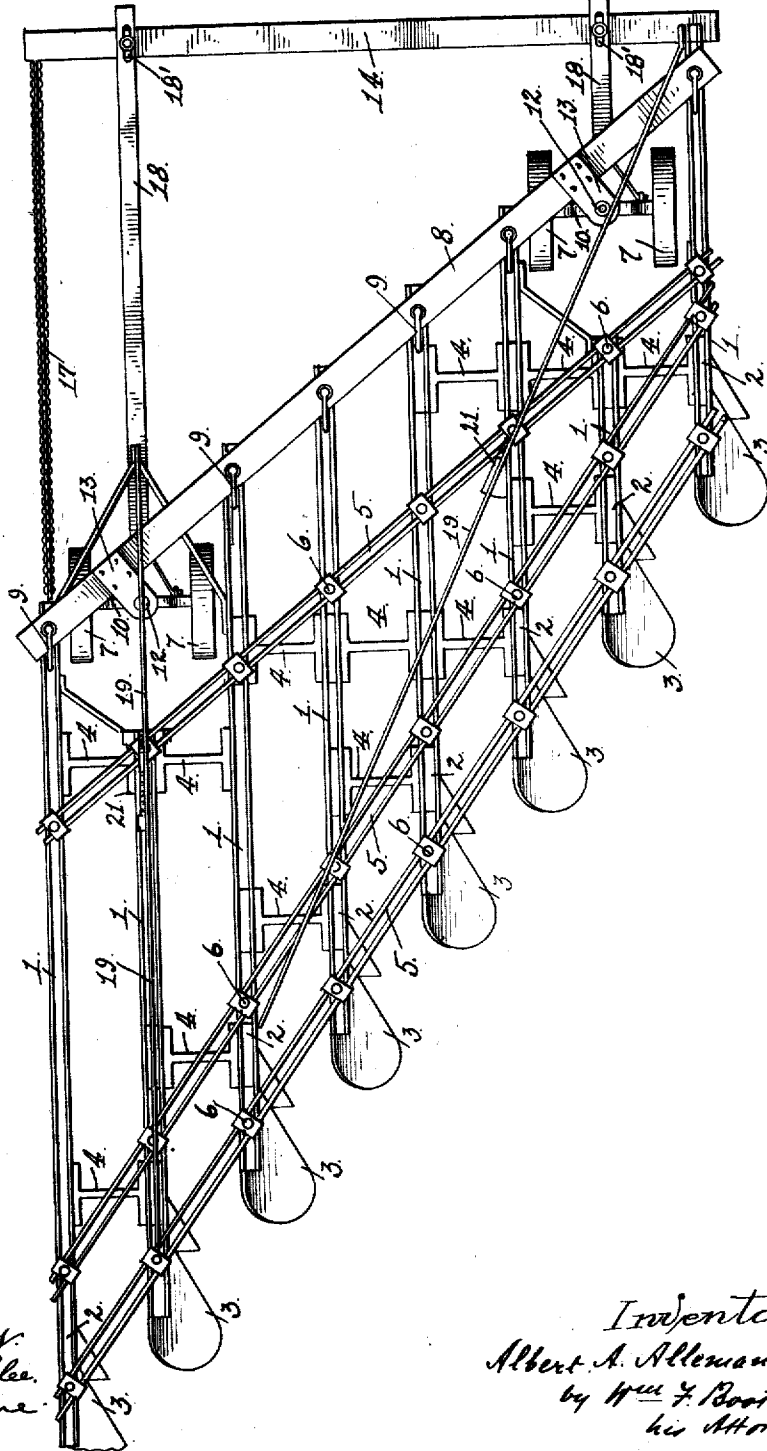


Fig. 1.

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Fig. 2.

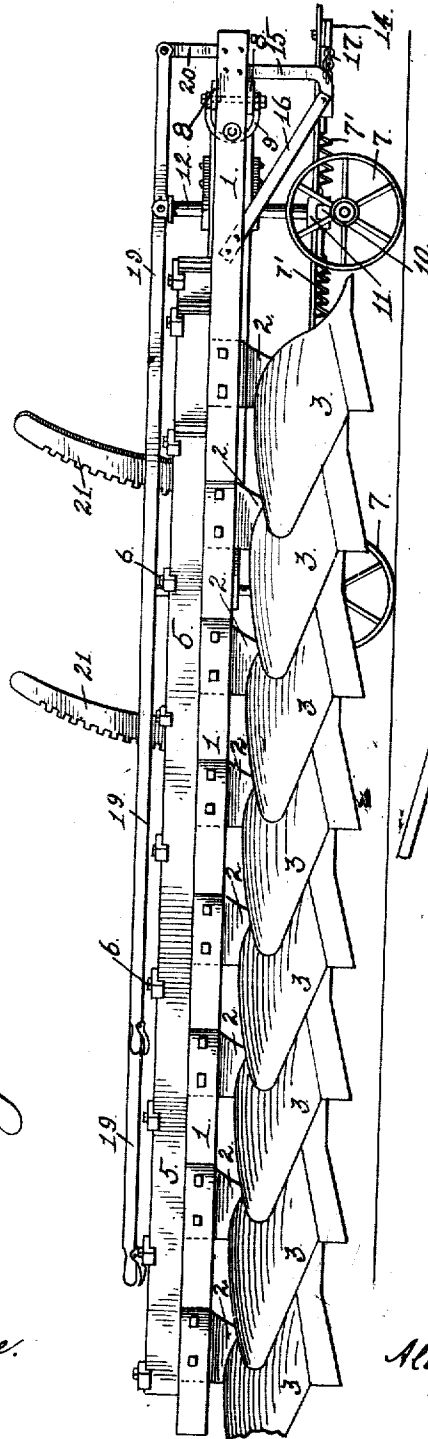
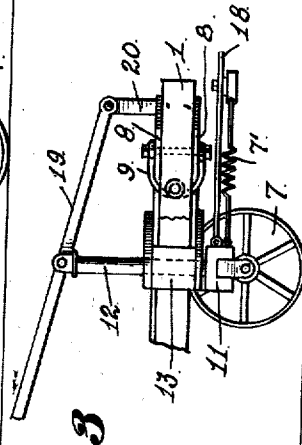


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALBERT A. ALLEMAND, OF GILROY, CALIFORNIA.

GANG-PLOW.

1,012,577.

Specification of Letters Patent.

Patented Dec. 26, 1911.

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To all whom it may concern:

Be it known that I, ALBERT A. ALLEMAND, a citizen of the United States, residing at Gilroy, in the county of Santa Clara and State of California, have invented certain new and useful Improvements in Gang-Plovers, of which the following is a specification.

My invention relates to the class of gang-plovers of relatively large and heavy construction intended to be drawn by engines.

The object of my invention is to provide a plow of this class especially adapted for breaking up or dry-plowing hard soils, and to this end it consists in the novel heavy construction of the frame, and the arrangement and location of its wheels, as I shall now fully describe by reference to the accompanying drawings in which—

Figure 1 is a plan of my plow. Fig. 2 is a side elevation of the same. Fig. 3 is a detail of the steering wheel and its connections.

The beams 1 which may be in any number according to the size of the plow, are here shown as eight, and each beam is composed of two parallel bars of steel set up edgewise, the bars of said beams receiving between them the standards 2 of the plow-bodies 3, thus making a heavy rigid beam. The beams are braced and held in position at the required distance apart by heavy cast steel connecting braces 4 of I-shape, bolted to the beams, there being two braces between each beam, those braces at the rear being opposite the plow standards 2, and their bolts serving to hold said standards in the beams. This makes a strong frame, and said frame is further stiffened and reinforced by three truss-braces 5 each truss-brace being composed of parallel separated steel bars, which receive between them the bolts 6 passing down between the beam members, whereby said braces and beams are secured together. One of these truss braces 5 is placed at the rear of the plow; another is located just in front of the standards 2 and the third is located at the forward ends of the second and seventh beams. These beams as will be seen, do not reach the head of the plow. 7 are the wheels.

The head of the plow frame is composed of two steel bars 8, laid flat, one on top and one under the ends of the beams, said head bars being secured to the beams by the yokes 9. The wheels 7 are in pairs, the

members of each pair being mounted on an axle 10, which is centrally connected by a forked casting 11, with a vertical spindle 12, which is swiveled and slidable in the frame, through the bearings 13. The draft bar 14 by which the plow is drawn is connected with the outer beams by means of irons 15 depending from said beams and braced back by arms 16, and from these irons, chains 17 extend to the pulling bar. The draft bar is also connected with the wheels 7, by means of short poles 18 preferably made of flat bars extending from the axles of said wheels. The connection of these poles with the draft bar is a sliding one, formed by slots 18' and bolts, so that there will be no cramping in the steering operation. Said connection is also a yielding one, formed by the spring 7' and its connecting rods.

As will be seen, the wheels 7 are placed within the frame borders, one pair ahead of the second beam and the other pair ahead of the seventh beam, and by the pivoted mounting of said wheels the plow may be turned with facility in either direction without danger of breaking the wheels or upsetting the plow. This feature of being able to turn in either direction is a great advantage in plowing land which is cut up by drainage ditches, as one can always back furrow and throw the land away from the ditch, thereby raising the land between the ditches and facilitating the drainage. The advantage of having the wheels within the borders of the plow frame is that both sets run on the hard, relatively smooth land, rather than in the furrow into which the clods or large lumps always fall back and raise the plow out of the ground; but with the wheels as shown, the plow runs along smoothly and at the same depth always leaving the sub-soil perfectly smooth, which is one of the greatest advantages in the matter of drainage. By having the wheels in pairs a better bearing on the ground and a better support for the frame are afforded.

The standards of the plows are made heavy and tall, to give the plow plenty of clearance which is a great necessity in dry plowing land which breaks up in large chunks. The plow is raised and lowered by two levers 19, which are connected by links 20 to the front of the plow frame, and which fulcrum directly on the tops of the wheel spindles 12. These levers engage racks 21 in the usual manner.

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

1. A gang-plow comprising a frame having elongated oppositely disposed side borders extending substantially parallel to the line of draft, a series of plow-bodies carried by the frame at its rear portion, those plow-bodies forming the terminals of the series being in line with the side borders of said frame, supporting wheels for the front of the plow frame located near each side but within said side limits of the plow-bodies at the side borders of the frame, a draft bar extending transversely to the line of draft and substantially from side to side of the machine and rearwardly projecting poles one adjacent each end of the draft bar connected at their rear ends one to the axle of each wheel.

2. A gang-plow comprising a frame composed of a plurality of parallel separated beams extending substantially parallel with the line of draft, truss braces secured to and extending diagonally across said beams at the rear end thereof diagonally disposed head plates one disposed above and one below the beams and secured to the forward ends of the beams; diagonally disposed truss bars extending across the beams intermediate the ends thereof and connected to each plow-body arranged in diagonal series and secured by standards to said beams, one plow-body being under the rear end of each beam with the side thereof in substantial alinement with said beam, and supporting wheels carried by the diagonal head plates

of the frame near each end thereof, at points within the side limits of the plow-bodies at the side borders of the frame, said wheels being positioned between adjacent plow-bodies.

3. A gang-plow comprising a frame including a transversely extending draft bar, a plurality of elongated plow beams extending substantially parallel to the line of draft, the plow beams at the sides constituting the side borders of the frame, truss braces secured to and extending diagonally across said beams and a diagonally disposed head plate secured to the forward ends of the beams; plow-bodies arranged in diagonal series and secured by standards to said beams, one plow-body being under the rear end of each beam, supporting wheels arranged in pairs and having a swiveled connection with the head plate, one pair adjacent the forward end of said plate and another pair adjacent the rear end of said plate, the said wheels being positioned within the side borders of the frame and out of line with the cutting edges of the plows; a draft bar extending transversely to the line of draft, and poles projecting rearwardly one adjacent each end of the draft bar and having a yieldable connection one to each axle of the supporting wheels.

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

ALBERT A. ALLEMAND.

Witnesses:

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EUGENE F. ROGERS.