2 Sheets—Sheet 1.

# T. J. CRUMP.

## GANG-PLOW.

No. 193,226. Patented July 17, 1877.

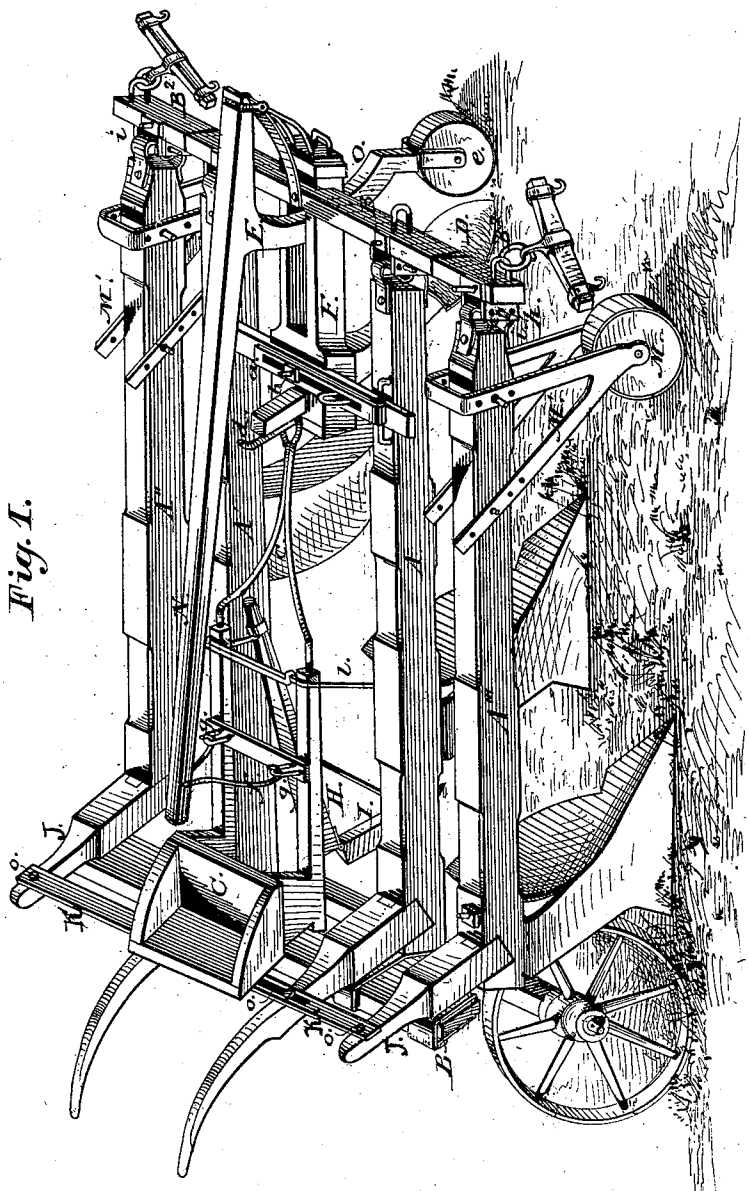


Fig. 1.

Witnesses:

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W. B. Acker

Inventor:

Thomas J. Crump

Per Parker & Sweet Jr. & Co.

Att'ys.

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2 Sheets—Sheet 2.

# T. J. CRUMP.

## GANG-PLOW.

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Fig. 2.

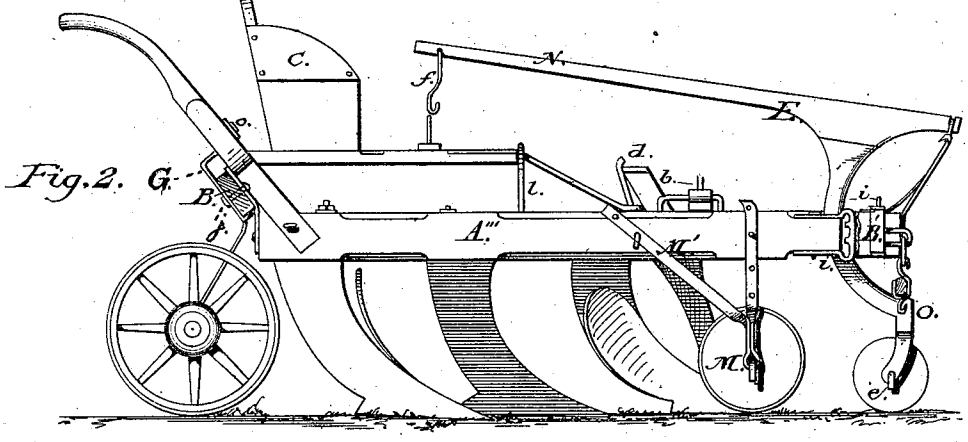



Fig. 3.

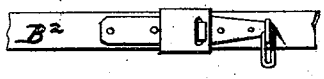



Fig. 4.

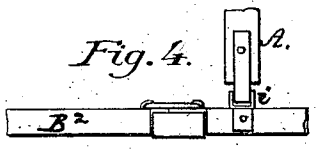
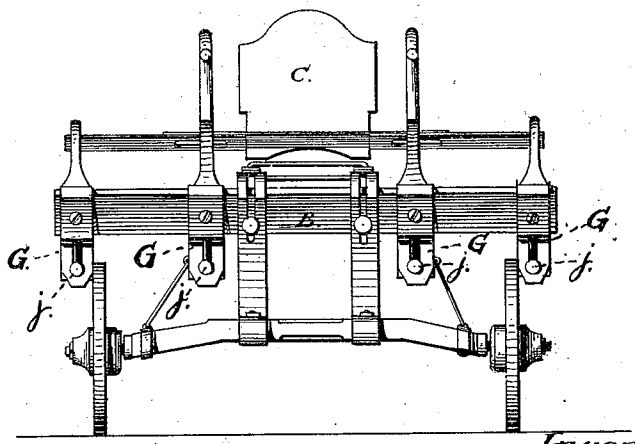



Fig. 5.




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# UNITED STATES PATENT OFFICE.

THOMAS J. CRUMP, OF BUENA VISTA, TEXAS.

## IMPROVEMENT IN GANG-PLOWS.

Specification forming part of Letters Patent No. **193,226**, dated July 17, 1877; application filed May 19, 1877.

*To all whom it may concern:*

Be it known that I, THOMAS J. CRUMP, of Buena Vista, in the county of Shelby and State of Texas, have invented certain new and useful Improvements in Gang-Plows; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to new and useful improvements in gang-plows; and it consists of an adjustable frame, within which two or more ordinary plows can be arranged to form the gang, said frame being constructed so as to enable one set of plows to run deep, while the other set can be made to run shallow.

It also consists of an improved means whereby the plows can be readily attached to or detached from the frame.

It also consists of an improved elevating device at the front, worked by a suitable lever extending to the rear, for raising the plow-points when the machine is in operation.

It further consists of an improved mechanism at the rear for backing the plows, all as will be hereinafter more fully described, and pointed out in the claims.

Referring to the drawings, Figure 1 represents a perspective view of my improved invention. Fig. 2 represents a side view of the same. Figs. 3 and 4 represent detail views, and Fig. 5 represents a rear view.

Similar letters of reference occurring on the several figures indicate corresponding parts.

The two plows A A composing the central part of the gang are arranged side by side at a suitable distance apart, to permit of the easy adjustment of the pivoted seat C, central colter D, and elevating device E between the two, said plows being secured to the cross-bar or frame B′ at the front, and to the carriage-frame B at the rear, as shown in the drawings.

To the center of the cross-bar B′, and at right angles thereto, is attached the slotted frame F, carrying the central colter D at its rear, said frame being mortised at its front end to the cross-bar $B^1$, and held in place at the rear at an equal distance between the plows A $A^1$, by means of the slotted cross-braces *a* and clamping-nuts *b*, as shown in Fig. 1 of the drawings. The seat C is hinged or pivoted at the rear to the carriage-frame B, and is provided with a forked metallic arm, *c*, at the front, which rests upon and is secured to the rear of the slotted frame F by a bolt, *d*. The elevating device E consists of a segmental arm, O, working through the slotted frame F, and provided at the foot with a small wheel, *e*, and at the top with a lever-arm, N, which extends from the front back to the seat C, where it is provided with a double hook, *f*, which catches in the staples *g* on the frame of the seat, said lever being secured to the front bar $B^1$ by suitable braces and bolts, as shown in the drawings. The plows A $A^1$ are hinged or pivoted to the front bar $B^1$ by means of a bolt, *h*, passing through the lugs *i* on said bar $B^1$, and through the clevises on the front end of the plow, as shown in Fig. 1, while at the rear they are secured to the carriage-frame by means of clamping-nuts *j* on the bolts in the rear of the plow working in the slotted supports G on the carriage-frame, as shown in Fig. 5.

Upon the inner sides of the beams of each of the plows A $A^1$, and directly under the seat C, are pivoted lever-arms H, which are provided at their rear lower ends with a hinged piece or drag, I, while their front upper ends are connected to the frame-work of the seat C by means of metallic arms *l*.

The several parts being arranged as hereinbefore described, forms the main portion or body of my improved gang-plow, and as such may be used for the various purposes of husbandry, either with or without the addition of two or more plows, as hereinafter described, the object being to furnish a gang-plow or attachments for forming a gang-plow, so that from two to six ordinary plows may be arranged and secured together at different widths and different depths, as may be required, by a most efficient, simple, and ready means, which will enable every farmer to form a large or small gang out of the ordinary farm-plows, which can be afterward taken apart and used separately, as occasion may require.

Where two or more additional plows are desired to be used in the gang, an auxiliary bar, $B^2$, is coupled to each end of the main bar $B^1$, said auxiliary bar being provided with lugs *i*, for the attachment of the clevises of the additional plows $A^2$ $A^3$, while the rear ends of said plows are attached to the rear carriage-frame B, in the manner as hereinbefore described. Upon the ends of the two outer plows $A^2$ $A^3$ are secured rollers or wheels M, in a frame, M′, so arranged that the said wheels can be raised or lowered, according to the depth of the plows in the soil.

In the operation of my improved gang-plow the wheel *e* upon the elevating device permits of the gang being readily turned either way, by depressing upon the lever N; or in case it is desired to raise the points of the plows while in operation in rough or stony land, so as to ride over obstructions, the lever can be depressed, which operation elevates the front part of the machine and raises the plow-points. In case it is desired to back the plows, the arms *l* of the lever-arms H are lowered by the plowman, thereby causing the drag I to swing back and take a firm gripe in the ground, when, by raising the said arms *l*, the plows are readily backed a short distance, which operation may be repeated until the plows are backed to the point desired.

It will be observed that the plows can be readily arranged between the bars or frames B $B^1$, so as to plow deep or shallow, by means of the bolts *h* passing through the upper or lower holes of the lugs *i*, and through the upper or lower holes of the clevis of the plows at the front, while at the rear of the plow the clamping-nut *j* is tightened in the slotted supports G at a suitable height. By these same means the plows are readily attached to or detached from the frames B $B^1$.

In using the plows in the gang, the ordinary handles are removed and standards J substituted in their place, across which standards is secured a brace, K, by means of square-headed bolts *o* passing through a slot in said brace into the standards, thus serving to keep the plows at the rear at an equal distance apart, as well as to strengthen and brace the whole construction.

The advantages of my invention will be readily seen without a more minute description, inasmuch as the general construction and arrangement of parts are effected in a most simple, effective, and durable manner, and readily adapted to the purposes intended.

Having thus described my invention, what I claim as new and useful is—

1. An improved gang-plow, consisting of the plows A $A^1$ $A^2$ $A^3$, front bar or frame $B^1$, auxiliary frame $B^2$, rear or carriage frame B, pivoted seat C, elevating device E, backing device H I *l*, and central colter D, the several parts being constructed, arranged, and combined to operate substantially as specified.

2. The combination of the plows $A^2$ $A^3$ and auxiliary frame $B^2$, with the main frame or bar $B^1$, and rear carriage-frame B, substantially as described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

T. J. CRUMP.

Witnesses:
P. N. BEATLEY,
J. B. BUSEY.