

UNITED STATES PATENT OFFICE.

FRANCIS CREMER, OF ELMWOOD, ILLINOIS.

IMPROVEMENT IN PLOWS.

Specification forming part of Letters Patent No. 111,911, dated February 11, 1871.

To all whom it may concern:

Be it known that I, FRANCIS CREMER, of Elmwood, in the county of Peoria and State of Illinois, have invented a new and Improved Plow; 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 make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side view, partly in section, of my improved plow. Fig. 2 is a rear elevation of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new plow, which is provided with an upright frame, so that a simpler construction and greater leverage are thereby obtained. The wheels A A are hung on axles B, which are securely fastened to an upright frame or plate, C. The tongue D is supported by a cross-piece, E, which rests on the axles B, and by braces *a a*, as shown, said braces being fastened to the plate C. The plows or shovels F F are fastened to the lower ends of vertical plow-beams G, that are suspended by swivel-bolts *b b* from a cross-bar, H. The said cross-bar is held in place by a vertical screw, I, which is swiveled in an ear, *c*, that projects toward the rear from the upper part of the frame C. The lower end of the screw rests on a plate, *d*, as shown. By turning the screw, the cross-bar will be raised or lowered with the plows. The plow-beams have projecting eyebolts *e*, which travel on vertical bolts *f f*, that are by pins *g* fastened to the back of the frame C. The plow-beams may, if desired, be connected by a chain, *h*, to cause them to turn simultaneously. The

driver's seat J is fastened to a bar, *i*, which projects backward from the tongue. The plows may be provided with small rods *j j* on their mold-boards, for the purpose of throwing the weeds to one side. When it is desired to throw the ground against the corn, these small bars are removed and an extra piece of mold-board, K, fastened to the plow.

For laying by corn, the plows are reversed, so that the high and short parts are on the inside, while for cultivating the low long parts are on the inside.

The tongue is, for laying by corn, fastened upon the plate *d*, and the braces raised accordingly.

The draft is applied to a chain, L, which is passed over pulleys *l l*, as shown, and which serves as equalizing double-tree, the whiffletrees being secured to its ends.

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

1. The combination of the suspended adjustable beams G G, cross-bar H, swiveled vertical screw I, upright plate C *c d*, and guides *e f*, with the axle B of a wheel-plow, to admit of a vertical adjustment of the shovels F, as described.

2. The up-and-down adjustable cross-bar H, supporting the vertical plow-beams, substantially as and for the purpose herein shown and described.

3. The combination, with a wheel-plow, of the chain L and pulleys *l l l*, arranged, as described, to equalize the draft.

FRANCIS CREMER.

Witnesses:

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SAMUEL D. ARNOLD.