H. E. CARVER.

SULKY-PLOW.

No. 188,856. Patented March 27, 1877.

Fig. 1.

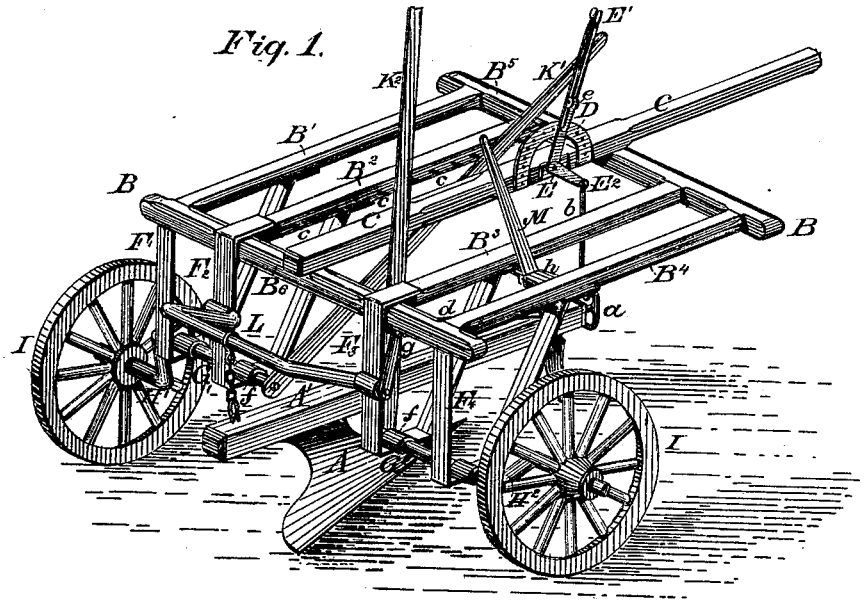


Fig. 2.

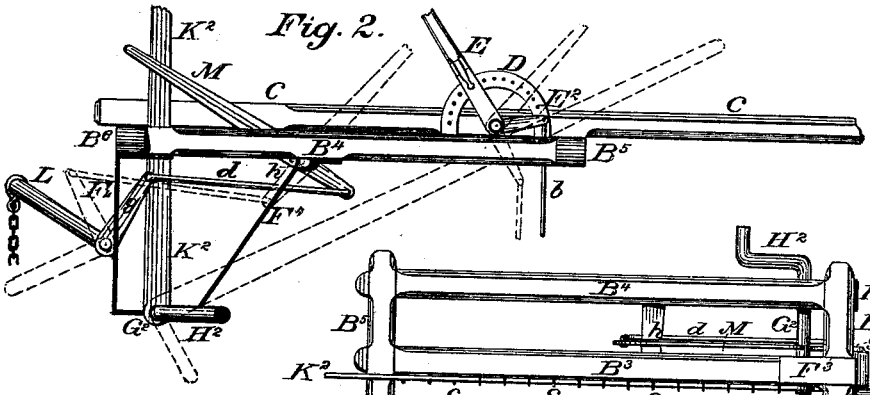
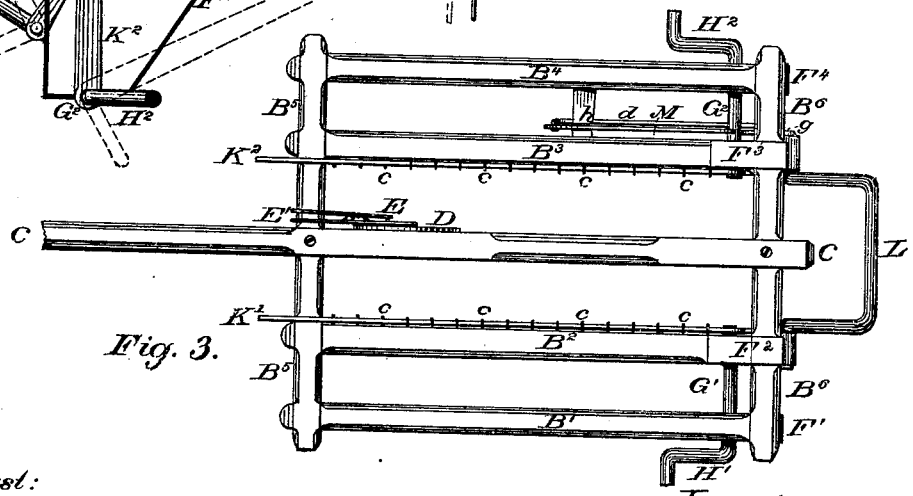


Fig. 3.



Attest:

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Att'y.

UNITED STATES PATENT OFFICE.

HENRY E. CARVER, OF MARION, IOWA, ASSIGNOR OF ONE-HALF HIS RIGHT TO A. J. BOARDMAN, OF SAME PLACE.

IMPROVEMENT IN SULKY-PLOWS.

Specification forming part of Letters Patent No. **188,856**, dated March 27, 1877; application filed May 25, 1876.

To all whom it may concern:

Be it known that I, HENRY E. CARVER, of Marion, in the county of Linn, and State of Iowa, have invented certain new and useful Improvements in Attachments for Sulky and 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, and in which—

Figure 1 is a perspective view, Fig. 2 is a side elevation, and Fig. 3 is a top plan.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to sulky attachments for plows; and it consists in the construction of a frame having downward-projecting brackets for carrying the adjustable stub-axles, by which the lateral pitch of the plow may be regulated, all as hereinafter more fully set forth.

I shall now proceed to describe the construction and operation of my improved plow attachment, reference being had to the drawings hereto attached.

A is the plow, the detailed construction of which is immaterial, as any suitable plow may be used in combination with my attachment. A^1 is the plow-beam, and *a* is the clevis at the end of plow-beam. B denotes the frame of my attachment, which consists of four beams, represented by B^1, B^2, B^3, and B^4, united by cross-pieces B^5 B^6. C is the tongue, which is firmly bolted, or otherwise secured, onto the cross-pieces B^5 B^6, as shown.

To the front part of the tongue, within the frame, is secured a segmental ratchet, D, within the center of which is pivoted a bent lever, E. Lever E is easily operated from the driver's seat by a handle, E^1, having a spring catch or pawl, *e*, or equivalent device, by which the lever may be secured in any given position upon the ratchet D. To the end of the short bent arm E^2 of lever E is pivoted a rod, *b*, the other end of which is pivoted to the clevis *a* of the plow-beam A^1.

F^1 F^2 and F^3 F^4 are strong iron arms or brackets bolted onto the beams B^1 B^2 and B^3 B^4 respectively, as shown in the drawing. The lower ends of these brackets form journals or bearings, *f*, for shafts G^1 G^2, secured upon which are the bent stub-axles H^1 H^2. The wheels I are secured upon these axles in the usual manner. To the ends of the shafts G^1 G^2 are rigidly secured two levers, K^1 K^2, (one to each,) so that, by turning these levers, the shafts, and with them the stub axles, will be turned. The levers K^1 K^2 may be retained in any given position by means of pins *c* secured upon the beams B^2 and B^3, or by equivalent devices. The levers K^1 K^2 are affixed upon the shafts G^1 G^2 in such a manner that, when one of said levers (K^2 in the drawing) is in a vertical or upright position, and the other (K^1) in its lowermost position, or resting upon the front cross piece B^5, the position of the stub-axles, which are operated by these levers, will be such, in their relation to each other, that one (H^2 in the drawing) is raised up, and the other (H^1) is depressed. As these axles move in a circle around their respective shafts, it is obvious that their elevation may be readily controlled and adjusted by their respective operating-levers in such a manner that they, with the wheels affixed upon them, may be either on a line, or either side may be raised or lowered at the pleasure of the driver, who operates the levers K^1 and K^2 from his seat. By this arrangement, one side of my sulky attachment may be raised, and the other lowered, or vice versa, in passing over hill-sides or slanting ground, so that the plow will be kept in its perpendicular position, and make a straight up-and-down furrow.

Affixed to the rear part of the machine is a stout bail or projecting double-bent arm, denoted by L, which is pivoted in bearings upon the back part of the downward-projecting brackets F^2 and F^3. This bail may be raised or lowered by means of a rod, *d*, that is pivoted at one end to a short lever-arm, *g*, rigidly secured to one end of bail L, and at the other to a lever, M, which has its fulcrum at *h*, and is so placed that it may be readily operated from the driver's seat. When lever M is pulled toward the rear of the machine, the bail L is raised, and the rear part of the plow being secured to this bail by a chain or other suitable

means, it follows that the plow is lifted out of the ground. When, on the other hand, lever M is pushed forward, the bail, and with it the plow, is lowered.

I am aware that it is not new to provide means for adjusting the lateral pitch of riding-plows, or for elevating the plow or plows above the soil; but the devices employed for these purposes have been defective in various respects. Thus, for instance, the axle of various sulky attachments, as now constructed, will prevent the plow from being suitably raised from the ground, unless the plow-beam has been shortened, or specially constructed for this purpose.

My improved sulky attachment has also the advantage of being stronger and less complicated than those now ordinarily used.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

An attachment for sulky-plows, consisting of a frame constructed of parallel beams B^1 B^2 B^3 B^4, arranged in pairs on each side of the tongue, and united by cross-pieces B^5 B^6, each pair or set carrying brackets F^1 F^2 F^3 F^4 for the support of the stub-axles carrying the wheels, substantially as and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HENRY E. CARVER.

Witnesses:

J. F. SIMKINS,

SAML. DANIELS.