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GEORGE WATT, OF RTCHMOND, VIRGINIA.

Letters Patent No. 92,409, dated July 6, 1809.

## IMPROVEMENT IN CLEVIS-ATTACHMENT FOR PLOWS.

## The Schedule referred to in these Letters Patent and making not of the same.

## . To all whom it may concern:

Be it known that I, George Watt, of Richmond, in the county of Henrico, and State of Virginia, have invented a new and useful Clevis or Dranglit-Attachment for Plows; and the following is asufficiently full, clear, and exact description, to enable onie skilled in the art to which my invention appertains, to carry it into effect, reference being had to the accompanying drawings, which are made part of this specification.

My invention consists in a novel construction and combination of parts in a whiffletree-attachment, adapting it, while it allows a free vertical and lateral movement of the whiffletree, to rigidly support the same against turning on its longitudinal axis, thus cansing the plow to be lifted to and sustained in an erect position by the draught of the team on the whiffletree, without effort or exertion on the $p$ unt of the plowman.
In the drawings-
Figure 1 represents a perspective view of a preferred form of my invention applied to the bean and whiffletree, and
T.gure 2, a plan view of the coupling detached.

B represents the beam, and
W , the whiffletree.
Attached to the bottom and top of the bean B, at its front end, is a pair of plates, $L$ L, held by suitable bolts L' L', passing vertically through both of them and the beam, and secured by screw-nats in the usual manner.

The onter ends of the plates L Lare perforated vertically, for the reception of the pivots $O$ of a flat block, M , which is perforated transversely by a number of holes, N , arranged in a vertical series, and employed to receive, in oue or another of them, the couplinglink, according as it is desired to plow at a greater or less depth.

The block M may be of greater or less length than the depth of the end of the beam, and when of greater length, as shown, the ends of the plates L L may be bent outward for its reception.

When of less length, said plates may be let into suitable recesses in the beam, or bent inward sufficiently to provide the required space.

Said block is' secured in place by the riveting of its pivots, as shown, by providing their outer ends with screw-nuts or other suitable appliance, or by forming them in the shape of hooks, so as to prevent their withdrawal by any movement the block might aecidentally receive.

Attached to the block M, by a bolt, H, passing through one of the holes N of said block, is a pair of vertical plates, G G, supported at a distince apart, corresponding with its thickness, by a number of washers, K, ou a central bolt, I, and attached at the other end, by a bolt, $\mathrm{H}^{\prime}$, to the loop P of the whiffletree W. The plates G G may be of any dimensions, as to length and width, and sufficiently thick to prevent any considerable torsional movement.

The holes for the reception of the bolts $\mathrm{H}_{\mathrm{H}} \mathrm{I}$ are preferably formed, respectively, in their ends, and midway between those points, as shown.
The loop $P$ is secured on the whiffletree in any suitable manner, and may be of any suitable form and dimensions to afford the necessary eyes for the reception of the whiffletree and the bolt $\mathrm{H}^{\prime}$; that for the latter being preferably of the same width as the block $M$, and with flat sides, to assist in forming the desired rigid joint.
The bolt I and washers K may obviously be dispensed with, if preferred, especially when the plates G are not of great length.
The plates L I and pivoted block M, constituting the clevis proper, may also advantageously be employed separate from the other devices.

It will be seen, that by means of the hinges or pivots O and $\mathrm{H} \mathrm{H}^{\prime}$, respectively, vertical and horizontal a free movement, vertically aud horizontally, of the plow or beam, is allowed, irrespective of the other; but by the employment of the rigid plates $\mathbf{G} \mathbf{G}$;bolted firmly against the flat sides of the block M , forming a part of the hinge $O$ at one end, and of the loop $P$, throngh which the pirot of the hinge H' passes, at the other, as described, any separate turning on the lougitudinal axis of the plow and whiffletree is effectually prevented.
The draught of the team tends to keep the whiffletree in a liorizontal position, so that by means of the provision in the attachment last described the plow is by this same power lifted to and sustained in an erect position, thus relieving the plowman of this arduous task, and thereby enabling him to much more perfectly guide and manage the team.
The device is compact and neat in its appearance, may be readily applied and removed, as required, and is adapted to be very rapidly and cheaply manufictured, owing to the simple form of its parts.
I claim as new, and of my invention-

1. The block $M$, provided with vertical pivots 0 O, and a vertical series of perforations, $\mathrm{N} N$, substantially as described, for the purposes set forth.
2. In combination with the clevis LM, constructed substantially as described, the plates $G \mathrm{G}$, bolts $\mathrm{H} \mathrm{H}^{\prime}$, and whiffletree-loop $P$, constructed and arranged to operate substantially as and for the purpose specified.
3. In combination with the clevis L M, constructed substantially as described, whiffletree-loop $\mathbf{P}$, bolts H $\mathrm{H}^{\prime}$, and coupling $\mathrm{G}^{\mathrm{G}} \mathrm{G}^{\prime}$, the bolt I , and washers K , substantially as and for the purpose set forth.

To the above specification of my invention, I have hereunto sigued my hand, this 29th day of May, A. D. 1869.

GEO. WATT.
Witnesses:
I. Davenport,
I. A. Williams.

