

UNITED STATES PATENT OFFICE.

LEWIS O. BREKKE, OF DECORAH, IOWA, ASSIGNOR TO WILLIAM H. MANNING, OF SAME PLACE.

IMPROVEMENT IN DRAFT-EQUALIZERS.

Specification forming part of Letters Patent No. 221,280, dated November 4, 1879; application filed July 14, 1879.

To all whom it may concern:

Be it known that I, LEWIS O. BREKKE, of Decorah, in the county of Winneshiek and State of Iowa, have invented certain new and useful Improvements in Draft-Equalizers; and I do hereby declare that the following is a full, clear, and exact description of the invention, 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, which form a part of this specification, and in which—

Figure 1 is a top plan, and Fig. 2 is a perspective view, of one of my improved connecting-links, detached.

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

My invention relates to improvements in draft-equalizers, and it consists, essentially, in the combination, with the equalizing lever and its connecting-chains, of links of peculiar construction, substantially as and for the purpose hereinafter more fully described.

In the drawings, A is a bar, bolted or otherwise secured upon the pole B at a right angle. C C is a brace, the converging arms of which form an eye, through which is inserted a bolt, *e*, which serves the double purpose of fastening the brace upon the pole, and of forming a pivot for the lever D. E is another brace, secured upon pole B at a point in the rear of the equalizer. By means of these braces C C E, bar A is secured firmly in its position upon the pole.

The lever D is provided with two sets of perforations, *a b*, pivoted in which are the links F F', each of which consists of two arms, *f g*, bent into a horseshoe shape, one of the arms, *f*, having a perforation, *f'*, at its end, and the other being provided with a pin, *g'*, as shown more clearly in Fig. 2.

The links F F' are pivoted in the perforations *a b*, respectively, in the lever D, by their perforated arms *f*, and have each a chain or cord, G G', secured at the point where the two arms *f g* converge or meet. These chains pass over sheaves H H', arranged at each end of

bar A, and terminate in hooks or rings, to which the single and double trees are secured.

The long end of bar A has a series of holes, *e e*, by means of which it may be shifted in its position upon pole B by withdrawing the fastening-bolt and the screws for fastening the arms C C of the forward brace, and readjusting the bolt and screws, according to the number of horses for which the equalizer is to be used, or according to the nature or strength of the teams on each side of the pole.

By the construction of the connecting-links F F', as described, the leverage upon chains G G' will remain the same without regard to the position of the lever D, which would not be the case if the chains were hung direct in the lever. If the pull upon chain G' is stronger than upon G, the downward-projecting pin *g'* of link F will, when the lever has turned a certain distance to the right, abut against the side of the lever, thereby, by the arm *g*, preventing chain G from sinking or following the arc of the point where arm *f* of link F is pivoted upon the lever, by doing which the leverage would, of course, be materially decreased.

This equalizer may be used with two, three, or four horses, and is applicable alike to buggies, wagons of any kind, and harvesters, or other agricultural implements where it is desirable to equalize the draft. It is simple in its construction, easily applied and again removed, and absolutely certain and satisfactory in its operation.

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

1. In combination with the pole B and equalizer-beam A, secured adjustably thereto, the bifurcated brace C C, forming an eye at the converging point of its two arms, bolt *e* passing vertically through said eye and through the pole and lever D pivoted upon bolt *e*, substantially as and for the purposes specified and set forth.

2. As an improvement in draft-equalizers, the connecting-links F F', consisting each of

a horseshoe-formed link, composed of two arms, f g , one of which is provided with a perforation, f' , and the other with a downward-projecting pin, g' , substantially as and for the purpose specified and set forth.

3. The combination, in a draft-equalizer, of the chains G G' , connecting-links F F' , constructed as described, and lever D , substantially as and for the purpose specified and set forth.

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

LEWIS OLSON BREKKE.

Witnesses:

GILBERT GULLIKSON,
ANDREW GULLIKSON.