J. Averill & E. S. Fitch's Draft Equalizer or Evener.

73864

assigned to James Averill

PATENTED

JAN 28 1868

Fig. 1

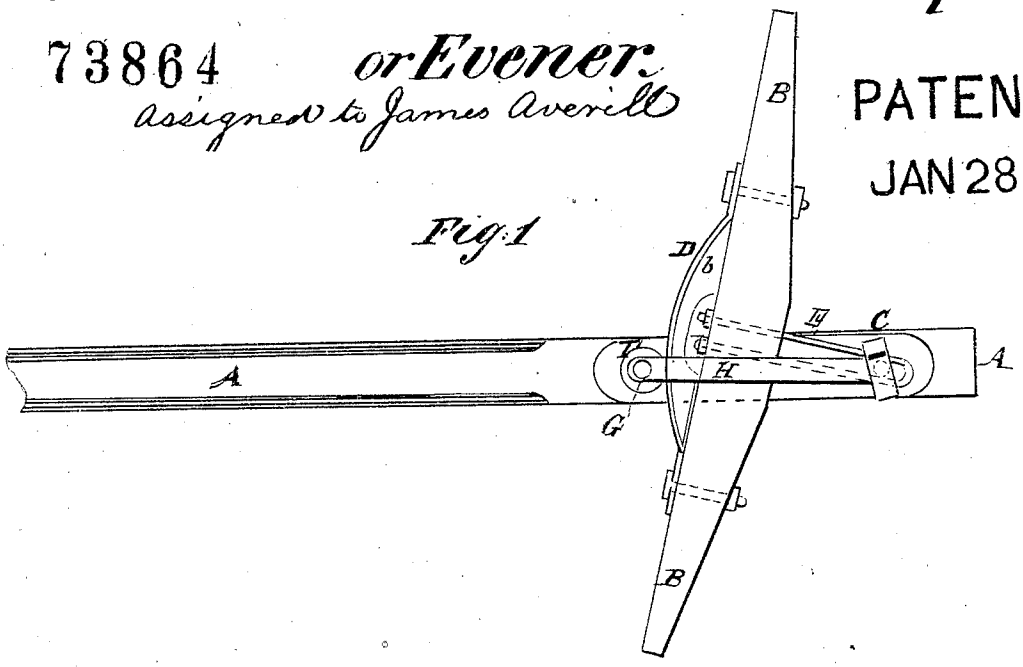
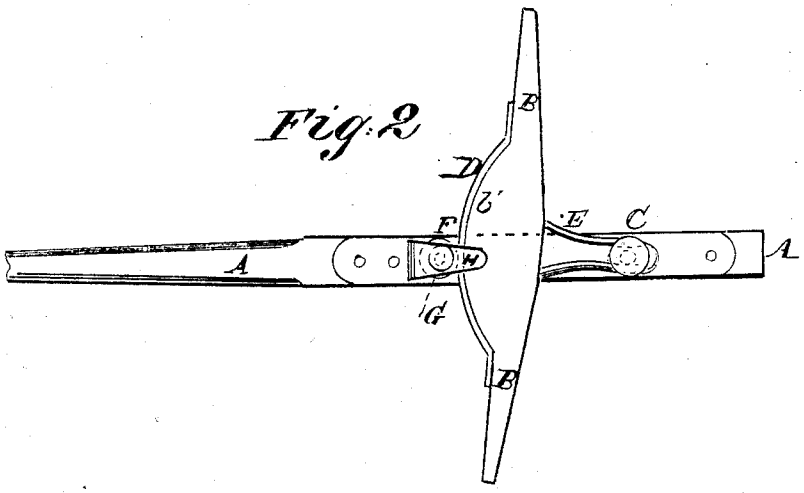


Fig. 2



Witnesses:
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United States Patent Office.

JAMES AVERILL, OF CHAMPLAIN, AND ELISHA S. FITCH, OF MOOERS, NEW YORK.

Letters Patent No. 73,864, *dated January* 28, 1868.

IMPROVEMENT IN DRAUGHT-EQUALIZER.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, JAMES AVERILL, of Champlain, and ELISHA S. FITCH, of Mooers, both in the county of Clinton, and State of New York, have invented a new and useful Improvement in Draught-Equalizer and Evener; and we 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 is a top view of our improvement, as attached to a wagon-tongue, part being broken away to show the construction.

Figure 2 illustrates a slight modification of the same.

Similar letters of reference indicate corresponding parts.

Our invention has for its object to furnish an improved draught-equalizer, evener, or adjuster, for connecting the draught-animals to the vehicle or other body to be drawn or moved, which shall be simple in construction, and effective in operation, always giving to the weaker or rear animal the longer arm of the lever; and it consists in the construction of the double-tree, draught-bar, or equalizer, and in the manner in which it is connected to the tongue of the vehicle, or to the body to be drawn or moved.

A represents the tongue of the vehicle, which is constructed and attached to the said vehicle, or other body to be drawn, in the ordinary manner. B is the equalizer or evener, the main part or body of which is made in the usual form. To the straight front side of the evener, and equally distant from its ends, is securely attached, by bolts, screws, rivets, or other convenient and substantial means, a segment, *b′*, of a circle, the centre of which is at the point, or near the point, at which is placed the hammer-pin C, by means of which the said equalizer is pivoted to the tongue A. The face of the segment *b′* should be covered and protected from wear by a metallic strap or band, D, securely fastened to the body of the equalizer by screws or bolts, as shown in fig. 1. To the rear side of the equalizer B, at its centre, is attached a long staple, E, through the loop of which the hammer-pin C passes, so as to pivot the said evener to the tongue. F is a small friction-wheel or roller, the length of which equals the thickness of the equalizer B, and which works or revolves upon the pin or bolt G, which passes through it and through the tongue A. The upper end of the pin or bolt G is supported by a strap, H, the rear end of which has a hole formed through it for the passage of the hammer-pin C, as shown in fig. 1. If desired, the rear end of the strap H need extend no farther back than to overlap the upper side of the equalizer B, as shown in fig. 2. In this case, the forward end of the strap H should be extended down to the tongue A, immediately in front of the roller F, and should be bolted or otherwise securely attached to said tongue, so as to strongly brace the pin G. In this case, the hammer-pin C may be permanently attached to the tongue A; and the forward part of the staple, directly in the rear of the equalizer B, may be enlarged, so that, when the equalizer has been drawn back, it may be lifted from the tongue, the head of the said hammer-pin C passing through the enlarged part of said staple E. In all cases, the staple E should be so long that the loop of said staple cannot bear upon the hammer-pin C, so that the entire draught may be sustained by the roller F and pin or bolt G.

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

1. The combination of a curved segment, *b′*, with the central part of the forward side of the equalizer B, substantially as herein shown and described, and for the purpose set forth.

2. The combination of the friction-roller or wheel F and pivoting-pin G with the tongue A, and with the curved segment *b′*, to sustain the draught, substantially as herein shown and described.

3. The combination of the strap H, or its equivalent, with the pin G, roller F, equalizer B, and tongue A, substantially as herein shown and described, and for the purpose set forth.

4. The combination of the long staple E with the equalizer B and hammer-pin C, substantially as herein shown and described, and for the purpose set forth.

5. Attaching the equalizer B to the tongue A, substantially in the manner herein shown and described, so that the said equalizer may be readily detached from the said tongue.

The above specification of our invention signed by us, this tenth day of January, 1868.

JAMES AVERILL,
ELISHA S. FITCH.

Witnesses:

SAMUEL C. JONES,
JAMES T. GRAHAM.