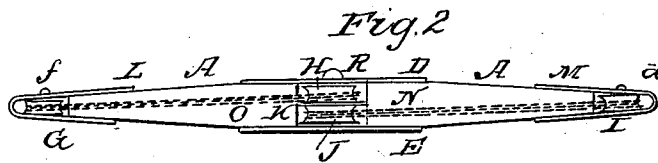
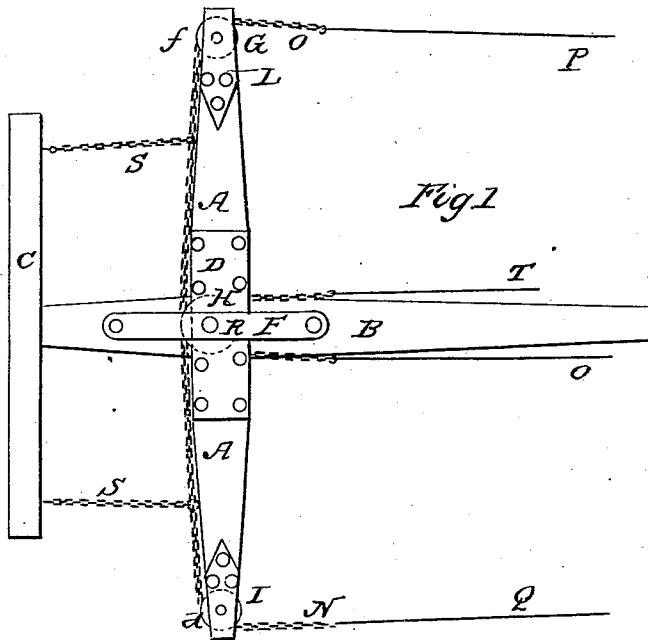


J. J. CONNELLY.
Equalizer for Vehicles.

No. 82,385.

Patented Sept. 22, 1868.



Witnesses
C. Schapin
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Inventor
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J. J. CONNELLY, OF CHICAGO, ILLINOIS.

Letters Patent No. 82,385, dated September 22, 1868.

IMPROVED EQUALIZER FOR VEHICLES.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, J. J. CONNELLY, of Chicago, in the county of Cook, and State of Illinois, have invented a new and useful Improvement on Equalizers for Vehicles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and the letters marked thereon, making a part of this description, in which—

Figure 1 is a plan view of my invention, as attached for use.

Figure 2, a rear elevation of the evenner, showing the position of the draught-chains and pulleys.

The nature of this invention consists in the use of an evenner, which has a double pulley at the centre, and a single pulley at each end, and in draught-chains arranged on said pulleys, in such a manner that each chain shall fasten to the outside trace of one horse, and to the inside trace of the other, by which means a perfect equalization of draught is secured without any motion of the evenner, as hereinafter shown.

In order to give a correct understanding of my invention, I have marked corresponding parts with similar letters, and will now give a detailed description.

B represents the tongue, and

C a broken view of the axle of a common wagon, to which my device is attached.

A A represent the evenner, which is made of two pieces of hard wood, of suitable size and length, and their inner ends are firmly secured together by means of two plates of iron, D E, bolted through and through, as shown at figs. 1 and 2, but leaving room enough between said ends for adjusting the pulleys H J between them, and in the centre of the evenner.

An iron plate, K, is put between the pulleys H J, as shown at fig. 2, and fitted into the inner ends of the pieces A A, and fastened with bolts, or otherwise, as most convenient, the object of said plate being to prevent the chains N O from coming in contact with each other, and also to permit the pulleys H J to operate independently, and turn in opposite directions.

The evenner is held in position on the tongue B by means of a bolt, R, which also passes through the pulleys, and holds them in position.

The end pulleys G I are held in place by means of straps of iron, M L, bolted fast to the pieces A A and bolts d f, in the usual manner.

A draught-chain, O, is adjusted on the pulleys G and H, and one of its ends is hooked, or otherwise fastened, to an outside trace, P, of one horse, and the other end to an inside trace of the other horse, and the chain N is adjusted on the pulleys I and J, and one of its ends is fastened to an outside trace, Q, and the other end to the trace T, by which means, if one horse slackens the traces T P, the traces U Q will be lengthened to the same extent; and it does not affect the equalizer in the least, by any swaying motion which the horses may have.

This invention differs essentially from the patent granted to H. B. Hale and T. Flagger, March 10, 1868, in the following particulars: They use a single pulley at or near the centre of the evenner, over which pulley the inside traces of both horses are put, said traces being practically an inside and independent attachment for the horses. The outside traces are also an independent attachment, passing over pulleys at the ends of the evenner, thus making separate draughts for the outside and inside shoulders of the horses; and, as a result, if they (the horses) sway outwardly, the outside traces are loosened, and the whole load is thrown upon the inside shoulders of the horses, and when they crowd the tongue closely, the load is thrown upon the outside shoulders, the inside traces being loosened.

It is the object of this invention to obviate the objections resulting from the use of the above-named invention, and also to provide a cheap, convenient, and uniform equalizer, which can be readily attached to a vehicle, or used for general draught purposes.

It is not thought necessary to enter into a lengthy statement of the advantages gained by the use of my device, as the description clearly shows both merit and invention. This invention differs essentially from any

device now in use for a similar purpose, inasmuch as a perfect equalization is secured, even with a stationary draught-bar, and consequently each horse is compelled to bear half of the burden, or be drawn back on the vehicle.

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

A draught-equalizer, consisting of an evener or draught-bar, A A, pulley, H I G J, and chains, O N, the chain O passing over the pulleys H G, and providing a draught-attachment for the outside trace of the "nigh" horse, and the inside trace of the "off" horse, and the chain N passing over the pulleys J I, and providing a draught-attachment for the outside trace of the "off" horse and the inside trace of the "nigh" horse, substantially as and for the purpose specified and shown.

J. J. CONNELLY.

Witnesses:

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