

(No Model.)

W. LINDSEY.  
DRAFT EQUALIZER.

No. 603,959.

Patented May 10, 1898.

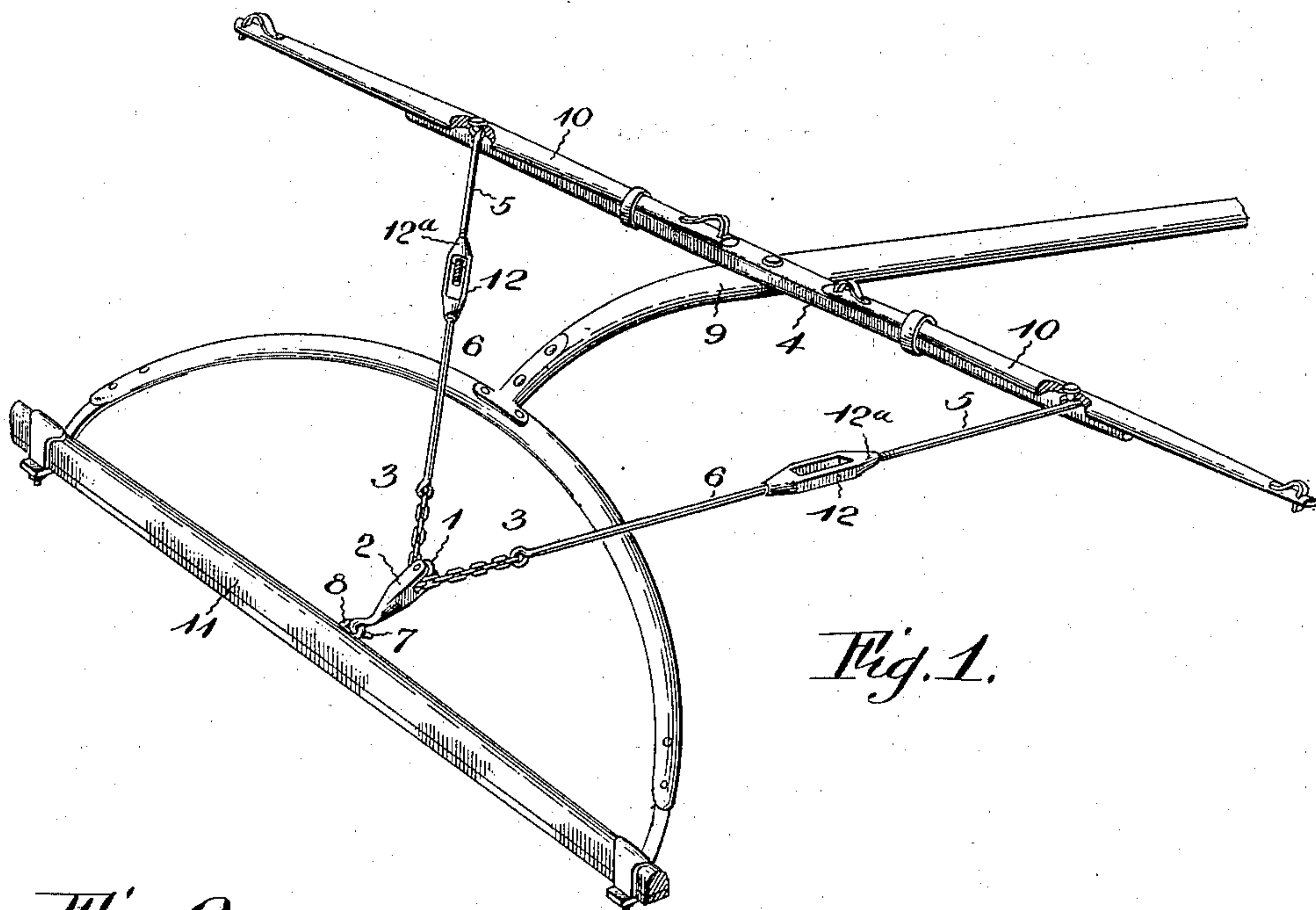


Fig. 1.

Fig. 2.

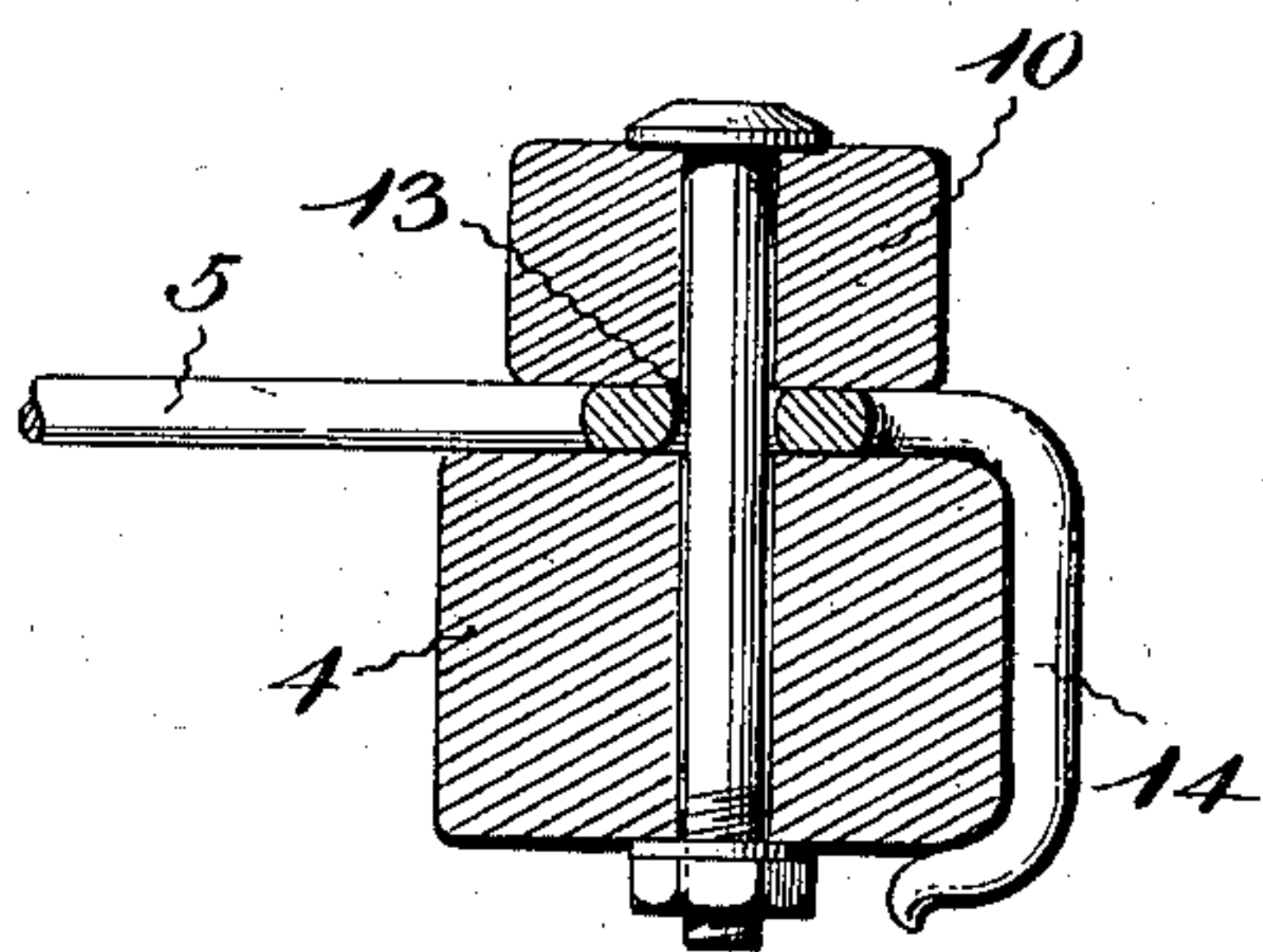


Fig. 3.

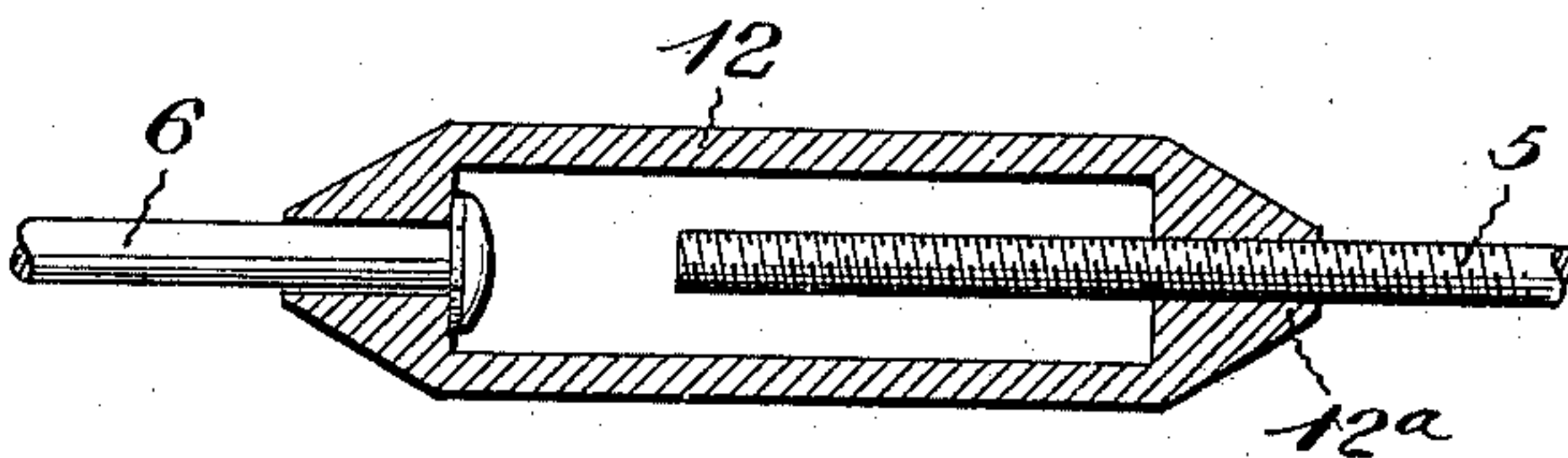
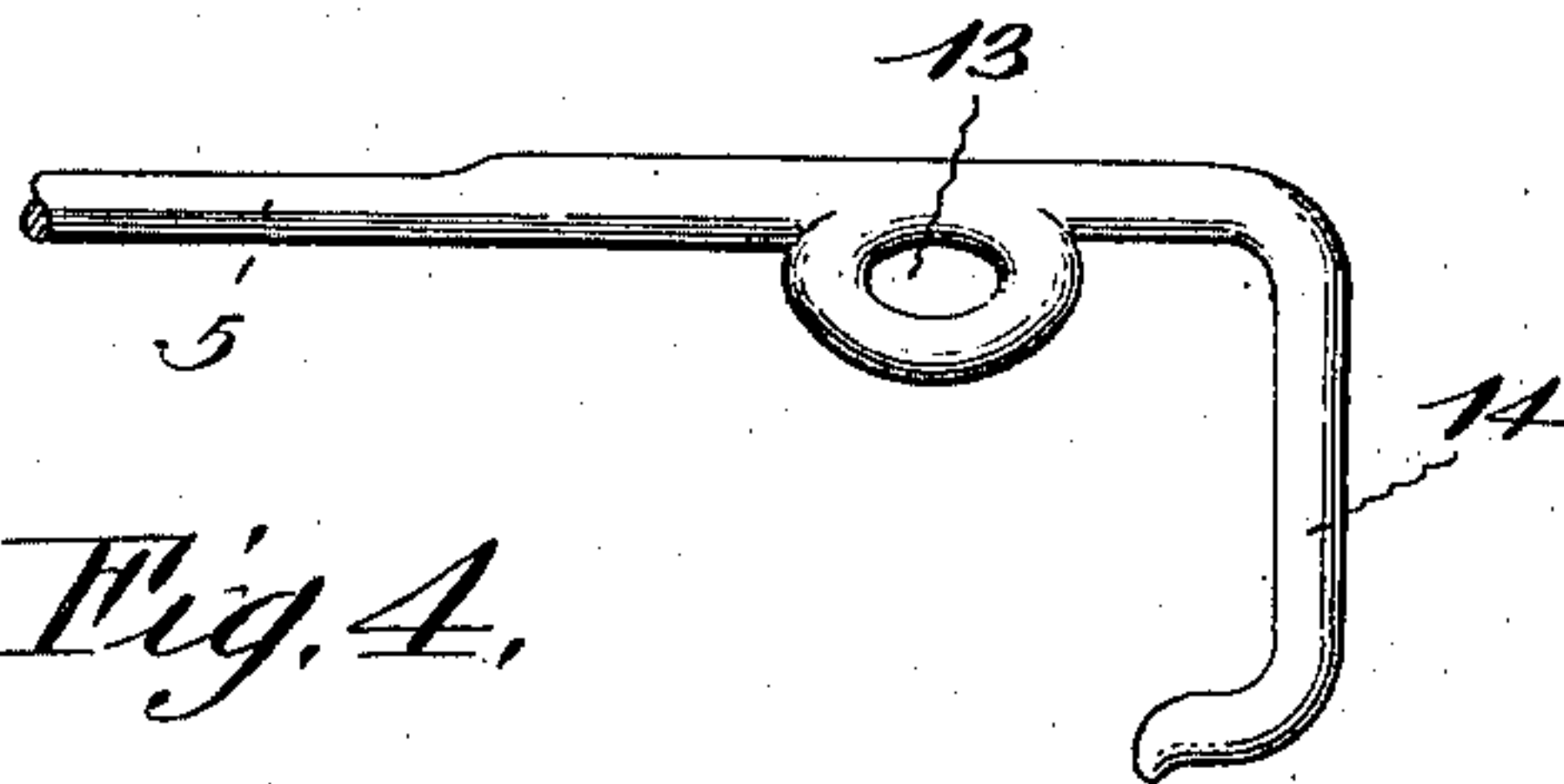


Fig. 4.



Inventor

Warren Lindsey.

Witnesses

J. H. Culverwell,

By his Attorneys,

J. F. Riley

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

WARREN LINDSEY, OF FREDERIC, KANSAS.

## DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 603,959, dated May 10, 1898.

Application filed November 18, 1897. Serial No. 658,961. (No model.)

*To all whom it may concern:*

Be it known that I, WARREN LINDSEY, a citizen of the United States, residing at Frederic, in the county of Rice and State of Kansas, have invented a new and useful Draft-Equalizer, of which the following is a specification.

The invention relates to improvements in draft-equalizers.

The object of the present invention is to provide for two-horse vehicles a simple, inexpensive, and efficient device adapted to equalize the draft, form a support for the double-tree, and operate as a stay-chain to limit the swing of the same.

A further object of the invention is to provide an equalizing device designed to connect the ends of the double-tree with the center of the front axle to insure a central draft at all times and capable of ready adjustment to maintain it at the proper tension.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a draft-equalizer constructed in accordance with this invention and shown applied to a portion of the running-gear. Fig. 2 is a detail sectional view illustrating the manner of connecting the device to the ends of a double-tree. Fig. 3 is a detail sectional view of one of the adjusting devices. Fig. 4 is a detail perspective view of the front end of one of the front rods.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a grooved pulley mounted in a block 2 and receiving a chain 3, which passes around it and extends forward from opposite sides thereof and is connected with the ends of a double-tree 4 by rods 5 and 6. The pulley-block, which is bifurcated to receive the pulley, has a tapering shank and is provided at its rear end with a hook 7, which engages an eye 8, located at the center of the front axle; but the means for connecting the pulley-block to the axle may be varied.

The double-tree 4 is pivotally mounted on a pole 9 in the usual manner, and it carries opposite singletrees 10, to which the horses or

other draft-animals are connected. The pole is coupled to the front axle 11 at opposite sides of the center, as clearly illustrated in Fig. 1 of the accompanying drawings.

The front and rear rods are connected by an adjusting device 12, and they extend forward from the ends of the chain in a straight line to the ends of the double-tree, the chain forming a flexible connection between the rear rods 6 and the latter limiting the swing of the double-tree and operating as stays.

Each adjusting device comprises a turnbuckle having its rear end swiveled to the rear rod and its front end 12<sup>a</sup> interiorly threaded and engaging a threaded portion 5<sup>a</sup> of the other rod; but both of the rods 5 and 6 may be threaded, if desired. The turnbuckle is adapted to take up any slack and maintain the parts at the desired tension.

The front ends of the rods 5 are provided with eyes 13 to receive the pivot-bolts, and they also have hooks 14, engaging the front face or edge of the double-tree and forming a secure connection between the same and the rods.

The invention has the following advantages: The draft-equalizer is simple, strong, and durable, and adapted to be readily applied to the running-gear of a vehicle, and it forms a support for the double-tree and relieves its pivot of strain. It obviates the necessity of employing stay-chains, and as it provides a continuous central draft it in a great measure prevents the vehicle from being overturned. The front ends of the rods are securely connected to the ends of the double-tree and the tension of the equalizer may be readily regulated.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. In a device of the class described, the combination with a running-gear, of rods provided with eyes receiving the pivots of the singletrees, the hooks rigid with the eyes and arranged at right angles to the plane of the same, and engaging the front edge of the double-tree, and means for movably connecting the rods with the front axle, substantially as described.

2. A draft-equalizer comprising a pulley-  
block having a pulley and designed to be cen-  
trally connected with the front axle of a ve-  
hicle, a chain passing around the pulley, rods  
5 provided at their front ends with eyes to re-  
ceive the pivots of singletrees and having  
hooks arranged at right angles to the plane  
of the eyes and adapted to engage the front  
edge of a doubletree, and means for connect-

ing the rods with the ends of the chain, sub- 10  
stantially as described.

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

WARREN LINDSEY.

Witnesses:

JOSEPHUS COMER,  
ALLEN L. PENTICO.