

No. 835,051.

PATENTED NOV. 6, 1906.

S. E. BAILOR.
DRAFT EQUALIZER.
APPLICATION FILED DEC. 20, 1905.

Fig. 1.

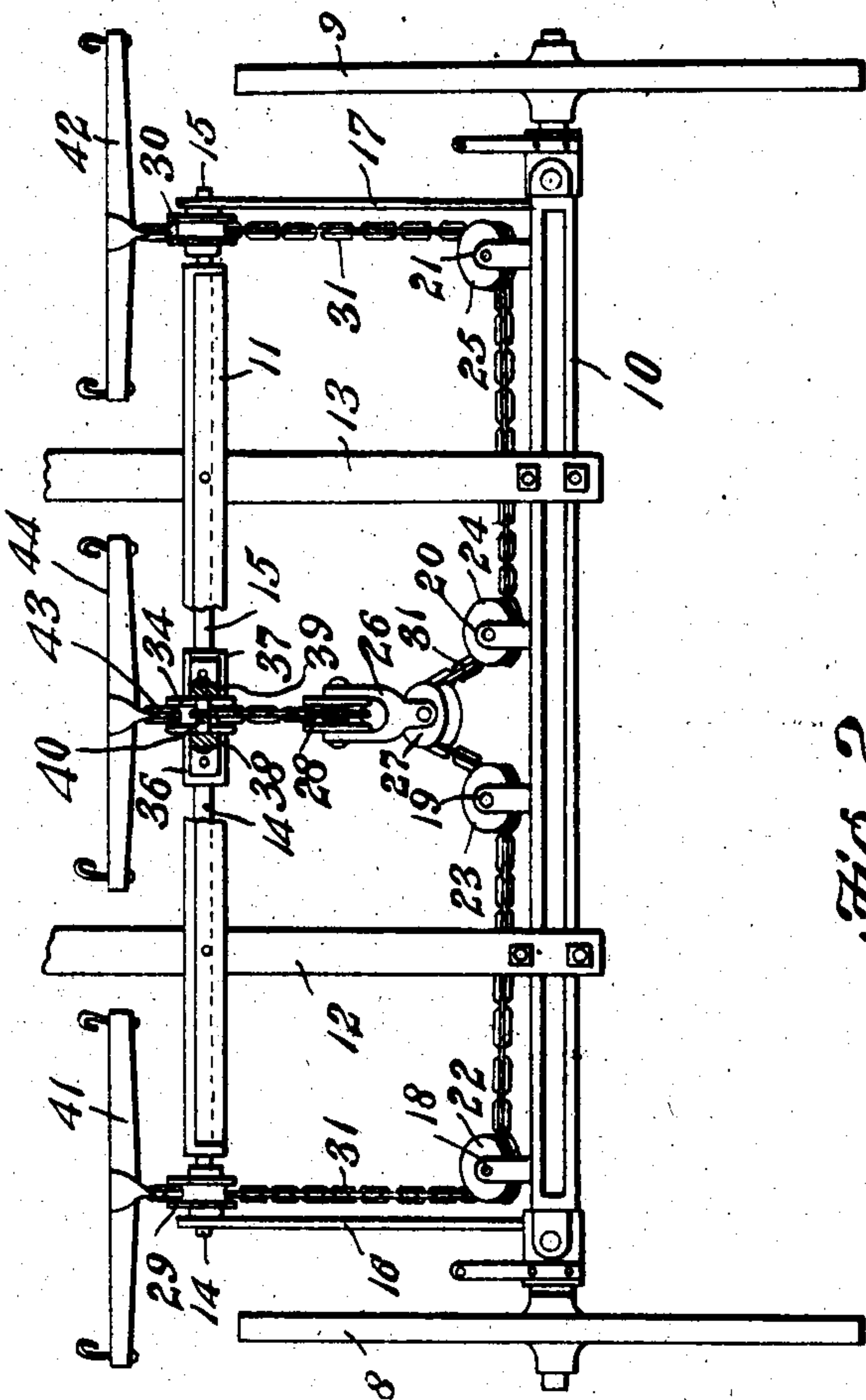


Fig. 2.

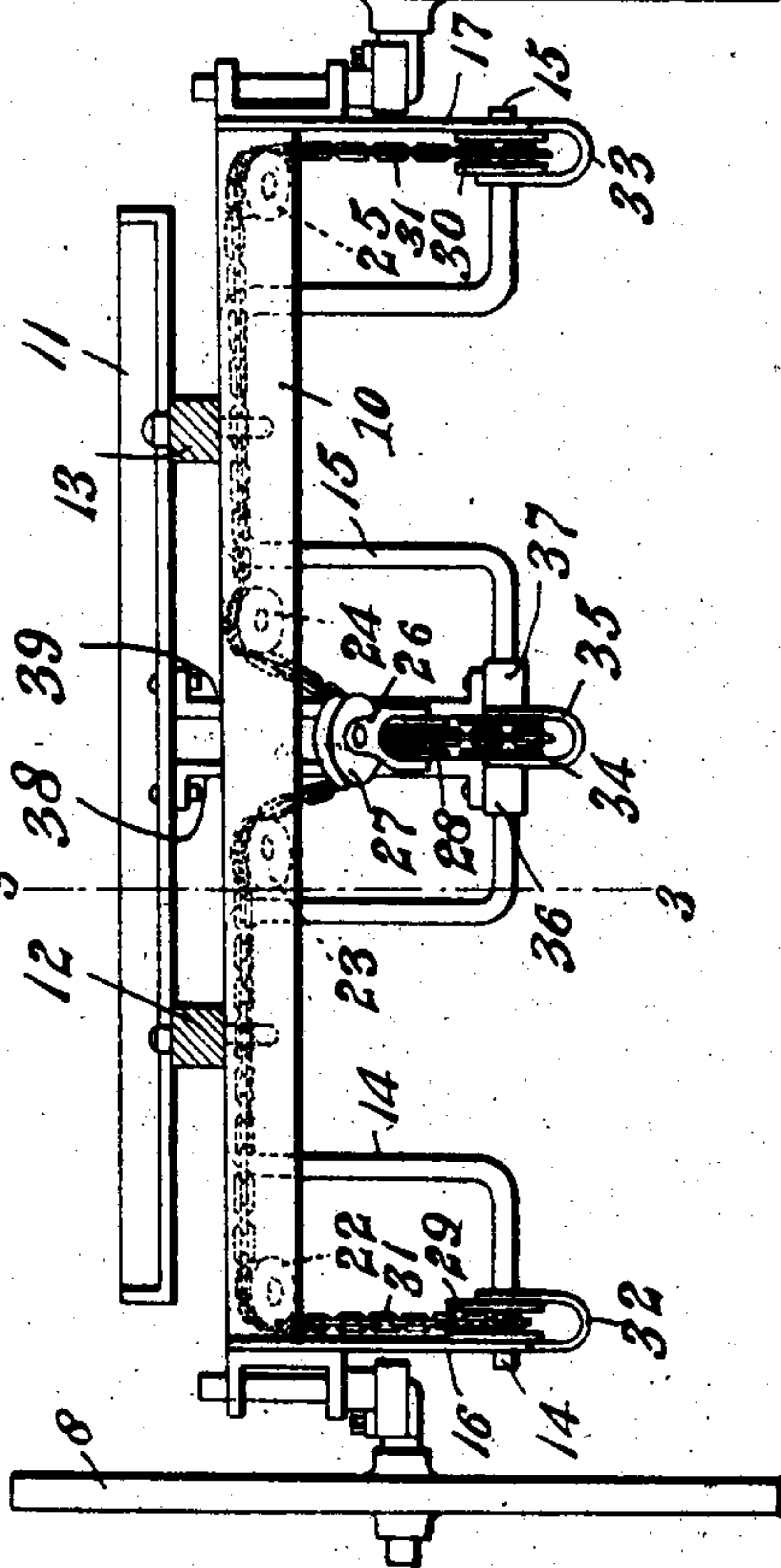
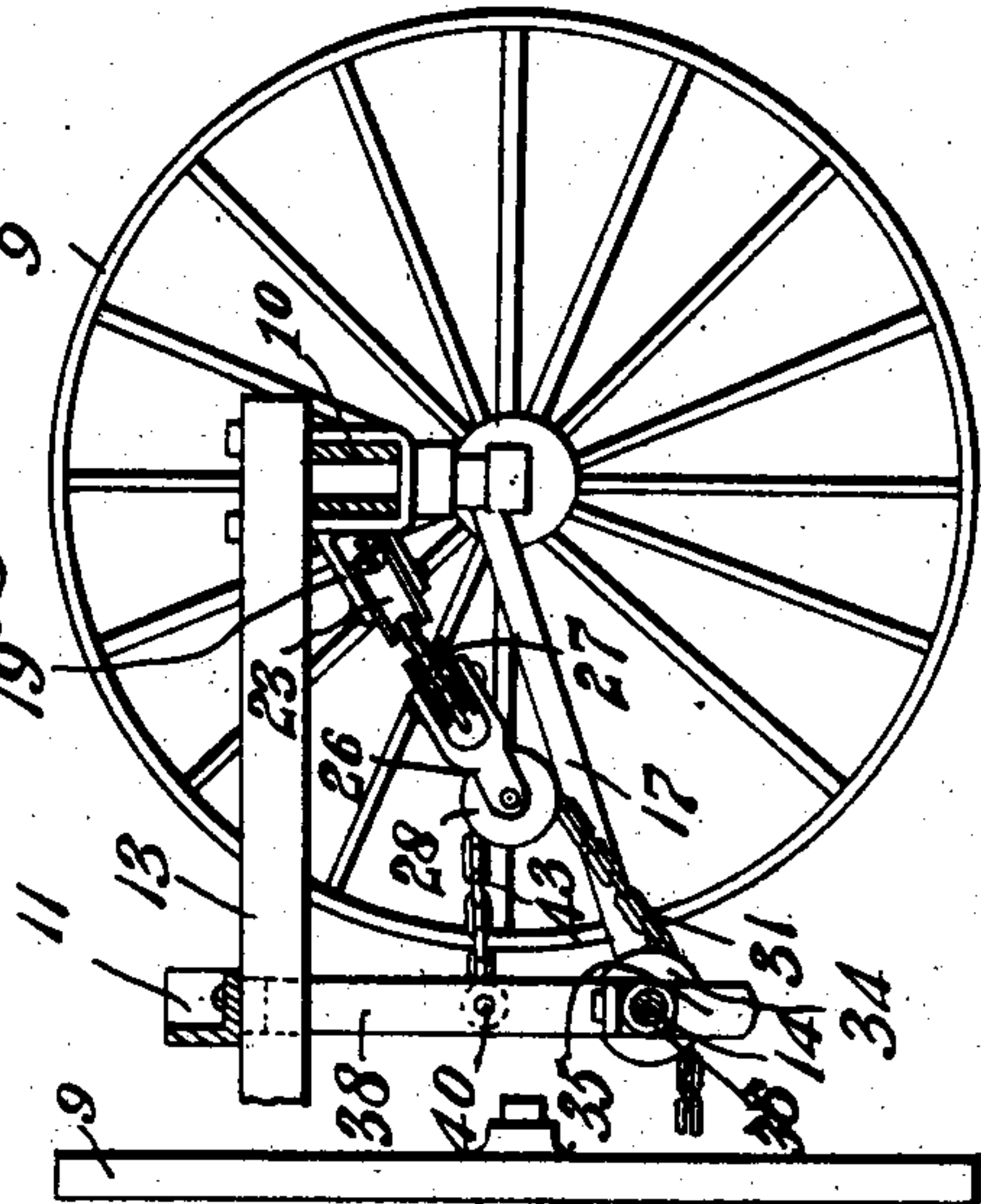


Fig. 3.



Witnesses
E. J. Stewart
W. Woodward

Silas E. Bailor, Inventor.
by *Chas. H. Snow* Attorneys

UNITED STATES PATENT OFFICE.

SILAS E. BAILOR, OF TARKIO, MISSOURI.

DRAFT-EQUALIZER.

No. 835,051.

Specification of Letters Patent.

Patented Nov. 6, 1906.

Application filed December 20, 1905. Serial No. 292,674.

To all whom it may concern:

Be it known that I, SILAS E. BAILOR, a citizen of the United States, residing at Tarkio, in the county of Atchison and State of Missouri, have invented a new and useful Equalizer, of which the following is a specification.

This invention relates of draft appliances for cultivators and similar implements, more particularly to implements of this class arranged to operate over two rows of plants simultaneously, and has for its object to improve the construction and increase the efficiency of devices of this character.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of embodiment of the invention capable of carrying the same into practical operation.

In the drawings, Figure 1 is a plan view. Fig. 2 is a rear elevation, and Fig. 3 is a section on the line 3 3 of Fig. 2 of a portion of a cultivator-frame with the improvements applied.

The cultivator-framework embraces an axle 10, carrier-wheels 8 and 9, a forward member 11, parallel to the axle and spaced from the same, and longitudinal members 12 13, spaced apart and extending over the axle 10 and forward member 11. The members 12 13 are designed to be extended forwardly into the thills or shafts for the draft-animals; but as the construction of these features is so well known they are not illustrated, as they form no part of the present invention. Disposed beneath the forward member 11 are the yokes or arches 14 15, to which the cultivator-beams are coupled, the arches supported from the axle 10 by braces 16 17. Attached to the axle 10 near the ends and at intermediate points are brackets or hangers 18 19 20 21, supporting chain-guiding sheaves 22 23 24 25, and suspended beneath the center of the axle is a hanger 26, carrying chain-guiding sheaves 27 28. Journaled upon the outer ends of the arch members 14 15 are guide-sheaves 29 30, beneath which chain 31 leads, the guide-sheaves having guide-hangers 32 33 to keep the chain from dropping downward when the draft strains are re-

moved. The inner ends of the arch members 14 15 are utilized to support a guide-sheave 34 and provided with a hanger 35 to prevent the falling of the chain which engages the sheave when the draft strain is removed. The adjacent or inner ends of the arch-frames 14 15 are secured in sleeves 36 37 and thence into the bearing of the sheave 34, and connecting these sleeves with the forward bar 11 are spaced brace-bars 38 39, the latter connected by a transverse brace-pin 40. The chain 31 has a swingletree 41 connected at one end and extends thence beneath the guide-sheave 29, thence around the guide-sheaves 22 23, thence around the guide-sheave 29 in the hanger 26, thence around the guide-sheaves 20 21, and thence beneath the guide-sheave 30 to a swingletree 42, to which it is attached. A second chain 43 is attached at one end to a central swingletree 44 and extends thence beneath the central guide-sheave 34 and thence around the guide-sheave 28 in the hanger 26 and is connected at the other end to the brace-bolt 40.

It will be observed that the outer swingletrees are disposed for operation outside the arch-frames, while the central swingletree operates between the arches, so that the central draft-animal will move between the rows of plants and the outer or flanking draft-animals will move outside the rows being operated upon by the cultivator. By this construction it will be noted that the draft is applied directly from the axle and that the strains are directly downward therefrom and do not exert downward strains upon the draft-animals; but, on the contrary, by reason of the location of the guide-sheaves 29, 30, and 34 below the line of the axle in advance of the same the tendency of the draft force is to lift the tongues or shafts, as will be obvious, thus relieving the horses, while at the same time increasing the downward pressure upon the cultivator-beams rearwardly of the axle.

The device may be readily adapted without material structural changes to single-row cultivators, and the invention is not, therefore, to be limited to any specific form of supporting-frame or other parts.

Having thus described the invention, what is claimed is—

1. In a draft-equalizer, a supporting-frame including an axle and spaced carrier-wheels, spaced guides connected to said axle, arched frames depending from said support-

ing-frame forwardly of the axle, spaced guide members carried by said arched frames, a hanger carrying spaced guides and movably disposed between said axle and arched frames, spaced draft appliances forwardly of said arched frames, a flexible element connected at the ends to the outer draft appliances and extending beneath the outer arch-frame guides and around the axle-guides and likewise around one of the hanger-guides, and a flexible element connected at the ends respectively to the intermediate draft appliance and the frame and extending beneath one of the arch-frame guides and around the other hanger-guide.

2. In a draft - equalizer, a supporting-frame including an axle and spaced carrier-wheels, spaced guides connected to said axle, arched frames depending in advance of said axle, spaced guides carried by said arched frames, brace-bars spaced apart and extending between said arched frames and the supporting-frame, a hanger carrying spaced guides and movably disposed between said axle and arched frames, draft appliances in advance of the arched frames, a flexible element connected at the ends to the outer draft appliances and extending beneath the guides upon the arched frames and around the guides upon the axle and likewise around one of the guides of the hanger, and a flexible element connected respectively at the ends

to the intermediate draft appliance and to the frame and extending around the other guide of the hanger.

3. In a draft - equalizer a supporting-frame including an axle and spaced carrier-wheels, spaced guide-sheaves connected to said axle, arched frames depending from said supporting-frame, guide-sheaves carried by said arched frames and spaced below the supporting-frame, a hanger carrying spaced guide-sheaves and movably disposed between said axle and arched frames, spaced draft appliances disposed forwardly of said axle, a flexible element connected at the ends to the outer draft appliances and extending beneath the outer guide-sheaves of said arched frame and around the guide-sheaves of the axle and likewise around one of the guide-sheaves of said hanger, and a flexible element connected respectively at the ends to the intermediate draft appliance and extending beneath one of the guide-sheaves of said arch-frames and around the other guide-sheave of said intermediate hanger.

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

SILAS E. BAILOR.

Witnesses:

W. H. NEELY,
W. F. PRESTON.