

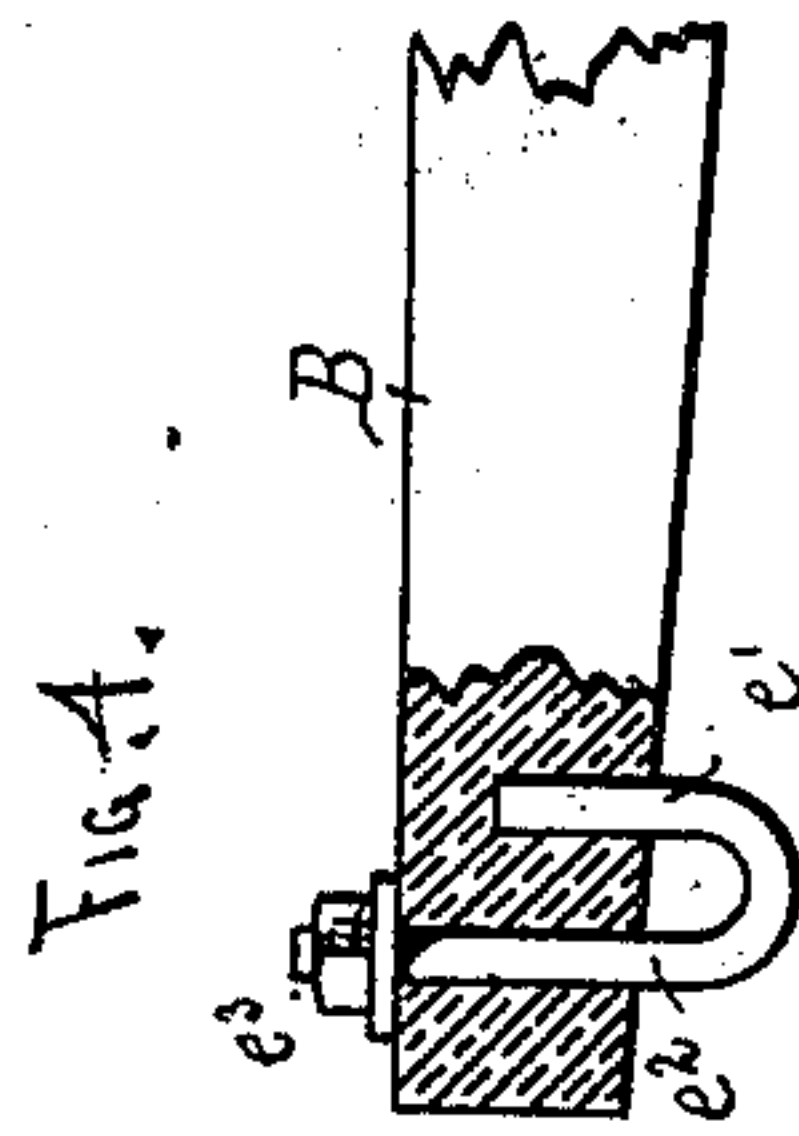
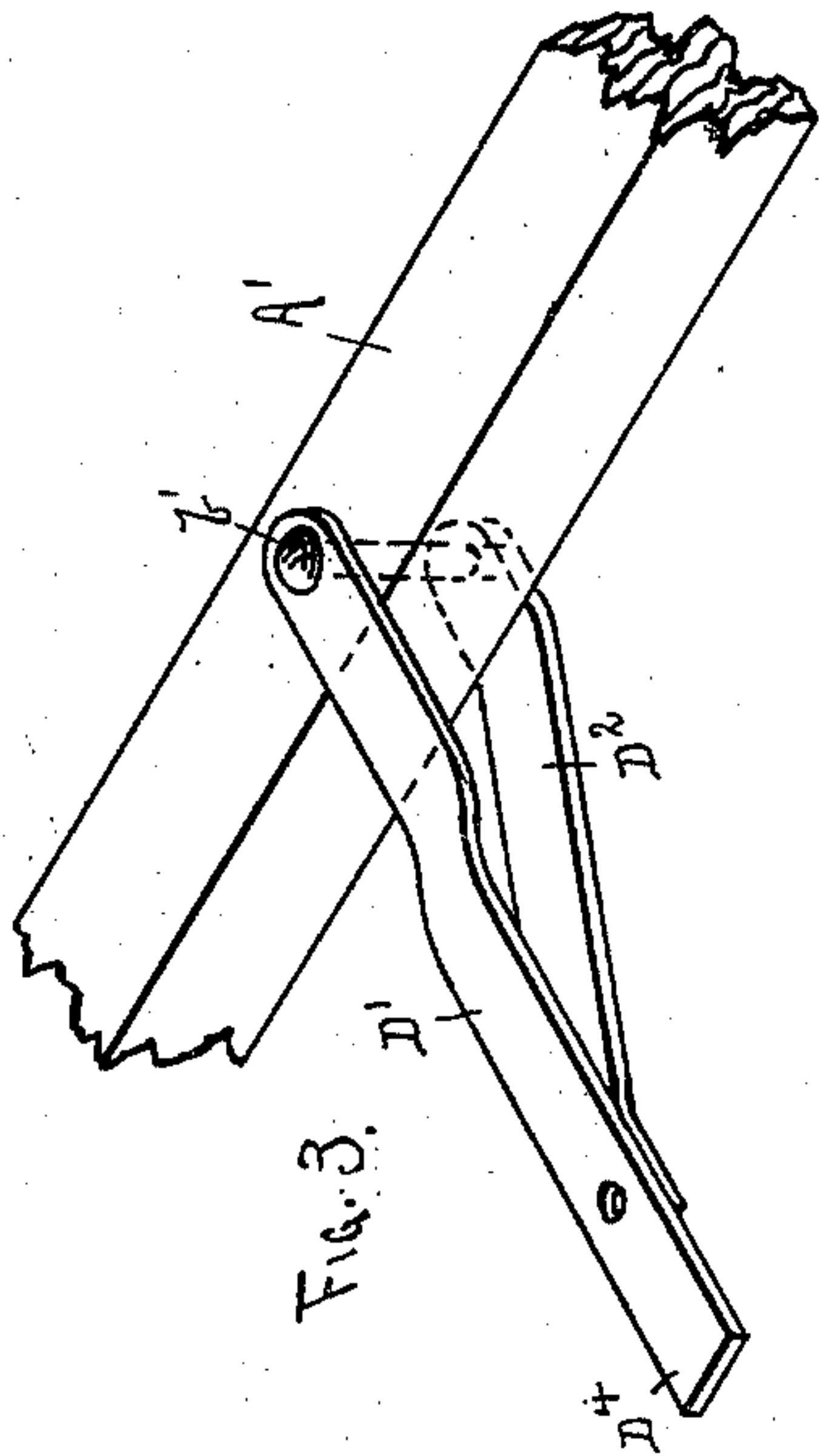
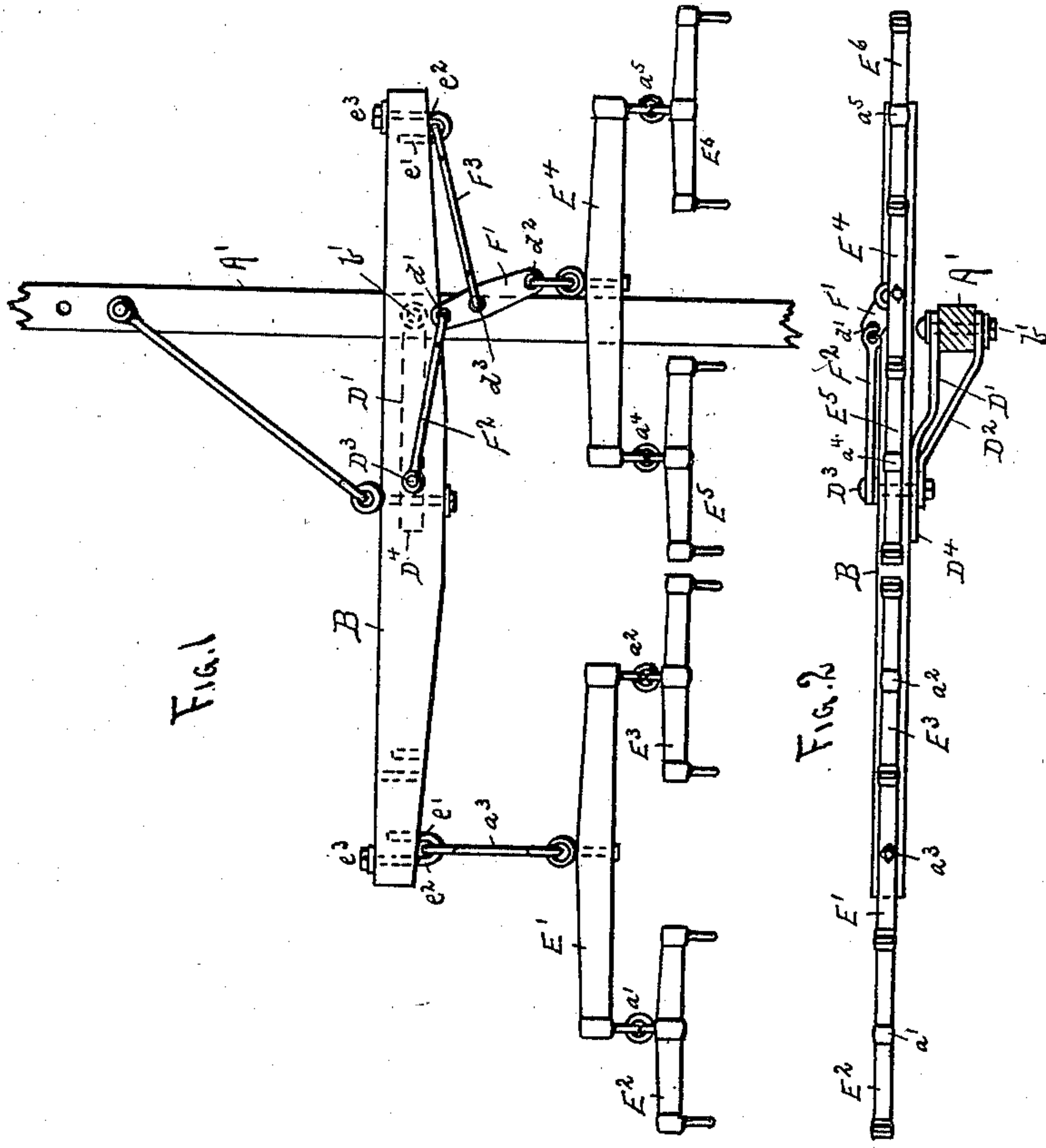
No. 668,204.

Patented Feb. 19, 1901.

J. L. OWENS.
DRAFT EQUALIZER.

(Application filed June 8, 1900.)

(No Model.)



WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN L. OWENS, OF MINNEAPOLIS, MINNESOTA.

DRAFT-EQUALIZER.

SPECIFICATION forming part of Letters Patent No. 668,204, dated February 19, 1901.

Application filed June 8, 1900. Serial No. 19,618. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. OWENS, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Draft-Equalizers, of which the following is a specification.

This invention relates to draft-equalizers employed in connection with harvesters, harrows, and other farm machinery requiring three or more horses; and it consists in the construction, combination, and arrangement of parts, as hereinafter shown and described, and specifically pointed out in the claims.

In the drawings, Figure 1 is a plan view, and Fig. 2 is a front view, of the equalizer and the necessary doubletrees and singletrees connected in place upon a section of a draft-tongue as arranged for a four-horse equalizer. Fig. 3 is an enlarged detail in perspective of the supporting-bracket for sustaining the equalizer mechanism and preventing it from sagging. Fig. 4 is an enlarged detail in section of the coupling mechanism between the draft-beam and the doubletrees.

A' represents the draft-tongue of the vehicle to which the equalizer is to be applied and will be firmly fixed, so that it will not turn in its fastenings on the vehicle to which it is attached.

B is the main equalizer-beam, which extends transversely of the tongue, as shown. Attached pivotally to the tongue by a "king-bolt" b' is a bracket, formed in two parts D' D^2 , the ends of the two parts D' D^2 next the tongue embracing the latter on both sides and secured thereto by the one common king-bolt b' , as shown, which passes through both members of the bracket and also through the tongue. The beam B is pivoted to the bracket at some distance from the end by a bolt D^3 , leaving a projecting end D^4 , which assists in supporting the beam and preventing it from sagging. An extended bearing is thus provided for the support of the beam, which greatly adds to the stability of the connection, while at the same time permitting the beam to freely swing horizontally upon its pivot D^3 .

E' is a "doubletree," and E^2 E^3 two singletrees, connected to the doubletree in the ordinary manner by links a' a^2 , while the double-

tree is in turn connected to one end of the beam B by a longer link a^3 . E^4 is another doubletree, and E^5 E^6 are two other singletrees, connected to the doubletree E^4 by links a^4 a^5 .

F' is a link having perforations d' d^2 , one at each end, and another perforation d^3 about one-third the length of the link.

F^2 is a rod pivoted at one end of the pivot-bolt D^3 and at the other to the perforation d' of the link F' . F^3 is another rod pivoted at one end to the perforation d^3 of the link F' and pivoted by the other end to the end of beam B. The means by which the long link a^3 and the rod F^3 are connected to the beam B is of peculiar and novel construction, as shown, and consists of a clip bent into U form, as shown, with one short leg e' and a long leg e^2 , the short leg fitting in a cavity in the beam B and the longer leg passing through the beam and provided with a nut e^3 , as shown. By this means a simple clip is provided, by which the links and rods are firmly secured by one single nut to each clip.

The bracket, composed of the parts D' , D^2 , and D^4 , forms a table-like platform for the support of the evener B, the said parts being pivoted together, as at D^3 . The platform prevents the evener from rubbing on the pole or tongue, and thereby greatly reduces the friction and prevents the wearing of the contiguous parts.

Having thus described my invention, what I claim as new is—

1. In a draft-equalizer of the class described, the combination of the tongue, the transversely-arranged equalizer-beam situated on lines above the top of the tongue, the brace-rod hinged directly to the tongue and hinged to the central part of the transverse beam, the laterally-extending brace adapted to stay the beam and support it vertically and composed of the bar D^2 pivoted to the under side of the tongue and the bar D' pivoted to the upper side of the tongue and connected to the aforesaid part D^2 and pivotally connected to the under side of the beam and extended longitudinally outward beyond the pivot, whereby the brace provides an expanded table-like support for the beam, substantially as set forth.

2. In a draft-equalizer, of the class de-

scribed, the combination of the tongue, the transversely-arranged equalizer-beam, above and extending across the tongue, the bar pivoted to the under side of the tongue and extending laterally therefrom and upward, the bar D' pivoted to the upper side of the tongue and bent or curved upward, and pivoted at D³ to the lower bar D², and extended longitudinally outward beyond the pivot to form a table-like support for the equalizer-beam situated in a plane above the tongue and the attachments thereto; said pivot D³ being also connected with the equalizer-beam, whereby said bars D' and D² provide an expanded

horizontal support for the beam and hold it above the tongue and the adjacent attachments thereto, the brace-rod hinged directly to the tongue and also to the central part of the beam, and means for attaching the horses at or near the ends of the beam, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN L. OWENS.

Witnesses:

C. N. WOODWARD,
A. LINDAHL.