No. 836,142. PATENTED NOV. 20, 1906.

C. L. ROBERTS.

DRAFT EQUALIZER.

APPLICATION FILED NOV. 9, 1905.

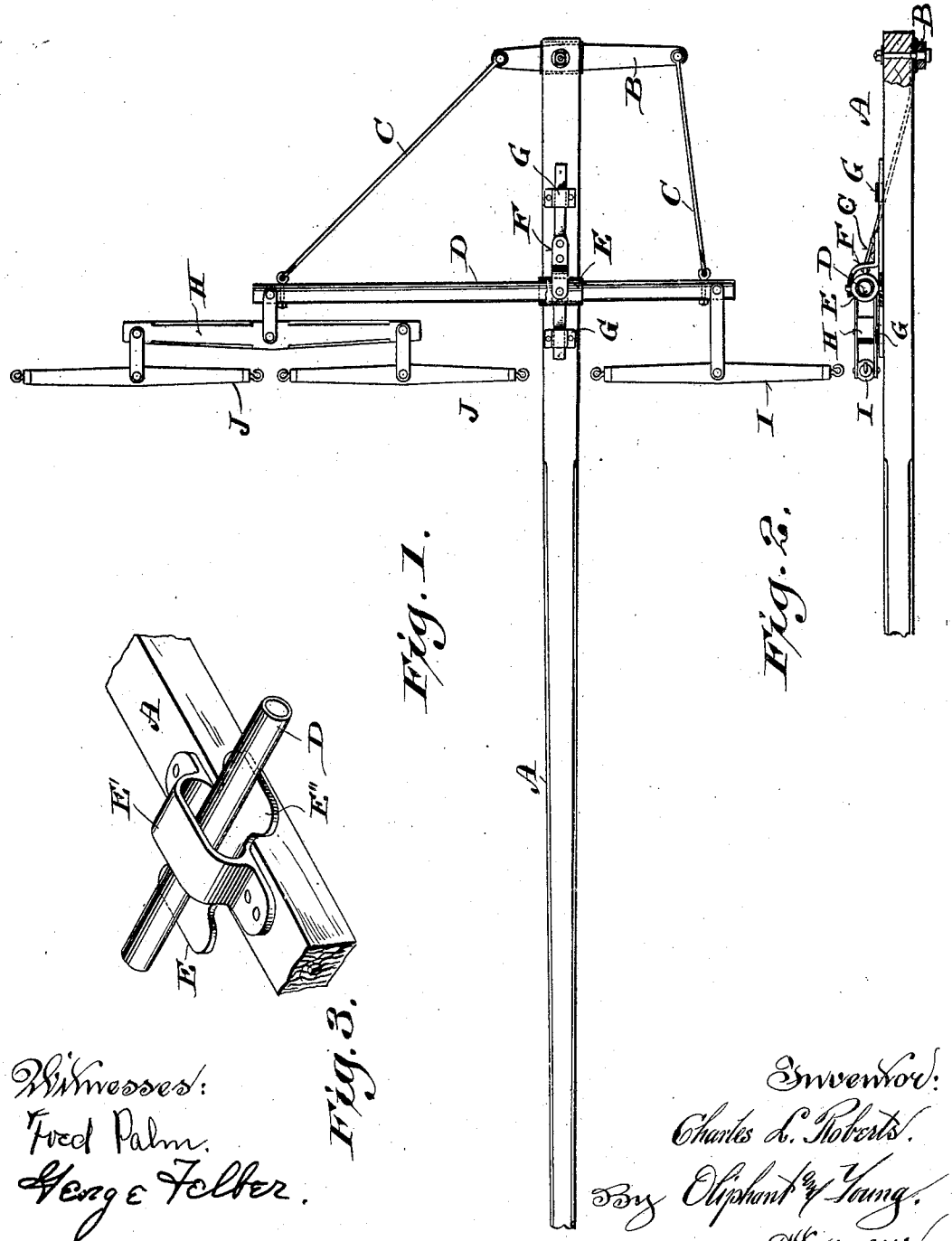

Fig. 1.

Fig. 2.

Fig. 3.

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DRAFT-EQUALIZER.

No. 836,142. Specification of Letters Patent. Patented Nov. 20, 1906.

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To all whom it may concern:

Be it known that I, CHARLES L. ROBERTS, a citizen of the United States, and a resident of Foxlake, in the county of Dodge and State of Wisconsin, have invented certain new and useful Improvements in Draft-Equalizers; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention consists in certain peculiarities of construction and combination of parts hereinafter particularly set forth with reference to the accompanying drawings and subsequently claimed, its object being to provide simple economical three-horse draft-equalizers and to prevent side draft.

Figure 1 of the drawings represents a plan view of a three-horse draft-equalizer in accordance with my invention in connection with a draft-pole, a spreader-bar guide of the equalizer being partly broken away; Fig. 2, a side elevation of the same, partly in section; and Fig. 3, a perspective view illustrating another form of spreader-bar guide in connection with a fragment of the draft-pole.

Referring by letter to the drawings, A indicates a draft-pole, B an equalizer-bar in pivotal connection with the rear end of the pole out of center under the same against a rub-iron; but it is as practical to attach the equalizer-bar over said pole, and in either case it may be connected farther forward of the same. Link-rods C or other suitable devices are connected at their rear ends to the ends of the equalizer-bar, and their forward ends are connected to a reciprocative spreader-bar D, for which a guide E is provided in connection with the pole A over or under the same, as may be preferable in practice.

Various means may be employed for connecting the link-rods or their equivalents to the equalizer-bar and spreader-bar, and said spreader-bar is tubular or otherwise, as may be most convenient or desirable, the tubular kind being herein shown.

In Figs. 1 and 2 the spreader-bar guide E is shown as a sleeve swiveled vertically in a carrier F, that has oscillative play longitudinally of the pole A in guides G, fast on said pole, the proportions of said sleeve and the carrier-guides being such as to resist tipping of said spreader-bar when there is preponderance of weight of the same and its attachments on either side of the aforesaid pole.

A doubletree H and swingletree I are connected to the spreader-bar D adjacent to the ends of the same, and a pair of swingletrees J are connected to the doubletree.

From the foregoing it will be understood that the spreader-bar is free to move laterally in either direction and that provision is had for swing of said bar, as well as for its free movement longitudinally of the pole. These combined movements serve to compensate for inequalities in the matter of the draft that comes wholly on the pole, and because of the freedom of the spreader-bar to automatically adjust itself longitudinally and laterally of said pole coincident with its swing side draft is prevented.

In Fig. 3 the spreader-bar guide is shown as a bracket E′, fast on the pole and provided with an elongated eye longitudinally of said pole. The spreader-bar in the eye aforesaid is free to have all the movements above described, by which to automatically adjust itself to strains in various directions, and thus prevent side draft. The bracket is provided with wings E″, extending laterally in opposite directions to oppose the spreader-bar and prevent tilt of the same, said wings being either under or over said spreader-bar, as may be most desirable in practice, and said bracket may be attached over or under the draft-pole.

I claim—

1. A three-horse draft-equalizer comprising the combination of an equalizer-bar pivotally attachable out of center to a draft-pole, a spreader-bar reciprocative longitudinally and transversely of said draft-pole on which it has swing play, and means connecting the ends of the equalizer-bar with the

spreader-bar; said spreader-bar being for attachment to a doubletree at one end and to a swingletree at its other end.

2. A three-horse draft-equalizer comprising the combination of an equalizer-bar pivotally attachable out of center to a draft-pole, a guide attachable to the pole, a spreader-bar reciprocative in the guide, and means connecting the ends of the equalizer-bar with the spreader-bar; said spreader-bar being for connection at one end with a doubletree and at the other end with a swingletree.

3. A three-horse draft-equalizer comprising the combination of a carrier for connection with a draft-pole to oscillate longitudinally of the same, a guide in swivel connection with the carrier, a spreader-bar loose in the guide, an equalizer-bar pivotally attachable out of center to the draft-pole, and means connecting the ends of the equalizer-bar with the spreader-bar; said spreader-bar being for connection at one end with a doubletree and at the other end with a swingletree.

4. A three-horse draft-equalizer comprising the combination of guides attachable to a draft-pole a carrier loose in the guides to oscillate longitudinally of the pole, a guide in swivel connection with the carrier, a spreader-bar loose in the swivel-guide, an equalizer-bar pivotally attachable out of center to the draft-pole, and means connecting the ends of the equalizer-bar with the spreader-bar; said spreader-bar being for connection at one end with a doubletree and at the other end with a swingletree.

5. A three-horse draft-equalizer comprising the combination of an equalizer-bar pivotally attachable out of center to a draft-pole, an antitilt-guide for connection with the pole, a spreader-bar reciprocative in the guide, and means connecting the ends of the equalizer-bar with the spreader-bar; said spreader-bar being for connection at one end with a doubletree and at the other end with a swingletree.

6. A three-horse draft-equalizer comprising the combination of an equalizer-bar pivotally attachable out of center to a draft-pole, a spreader-bar, means confining the spreader-bar to reciprocation longitudinally and transversely of said pole without interference with swing of said spreader-bar, and means connecting the ends of the equalizer-bar with the aforesaid spreader-bar; this spreader-bar being for connection at one end with a doubletree and at the other end with a swingletree.

In testimony that I claim the foregoing I have hereunto set my hand, at Beaver Dam, in the county of Dodge and State of Wisconsin, in the presence of two witnesses.

CHARLES L. ROBERTS.

Witnesses:
E. D. STACY,
M. H. BROWER.