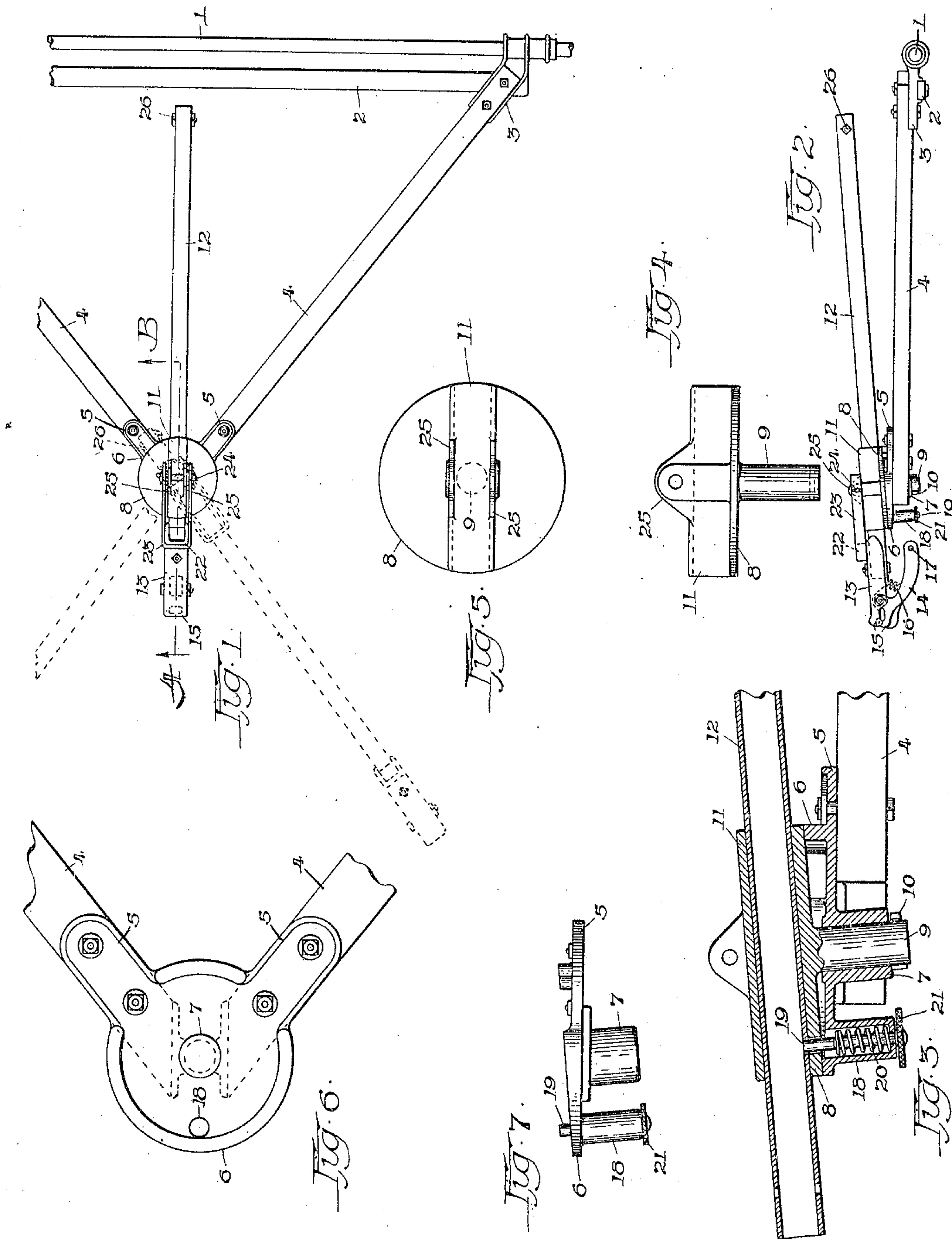


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DRAFT CONNECTION FOR HAY LOADERS.
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DRAFT CONNECTION FOR HAY-LOADERS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SAMUEL K. DENNIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Draft Connections for Hay-Loaders, of which the following is a specification.

My invention relates to hay loaders, and in particular to the draft devices whereby the loader may be connected with a wagon, its object being to provide a draft connection that may be manipulated in a manner whereby the loader may be quickly and conveniently connected with a wagon. This object is attained by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of part of a draft connection of which my invention forms a part; Fig. 2 is a side elevation of Fig. 1; Fig. 3 is a longitudinal and vertical section along the line A—B of Fig. 1; Fig. 4 is a side elevation on an enlarged scale of a member of the draft connection mechanism; Fig. 5 is a top view of Fig. 4; Fig. 6 is a top plan view of a detached detail of part of Fig. 1 on an enlarged scale; Fig. 7 is a side elevation on an enlarged scale of a part of the draft connecting mechanism.

The same reference characters designate like parts throughout the several views.

1 represents an axle forming part of the loader, 2 a draft arm member parallel with the axle and secured at opposite ends by draft castings 3 adapted to swing about the axle, one of said castings only being shown.

4 represents draft frame bars having their rear ends secured to the parts 3 and inclining inward and forward have their front ends secured to rearwardly diverging arms 5 forming part of a circular plate 6 provided with a depending central portion 7 that is preferably inclined rearward and downward.

8 represents a circular plate having a stem 9 upon its lower side that is received by the sleeve portion 7 in a manner to be turned therein, and 10 is a pin securing the parts in operative relation.

11 represents a diametrically arranged sleeve portion upon the upper side of plate 8, preferably made angular in cross section

and adapted to receive a loose tongue number 12 in a slidable manner.

13 represents a tongue attaching member secured to the front end of the tongue, and 14 is a lever pivotally connected with member 13 and adapted to cooperate therewith in a manner to connect the tongue with a wagon that is provided with means adapted to be received by the complementary curved jaws 15 at the front end of the two parts, the jaws being normally held in a closed position by means of a compression spring 16 operative between the two parts in rear of their pivotal connection, and 17 represents an opening at the rear end of the lever whereby a line may be attached thereto in a manner permitting the operator to release the connecting parts from his position upon the load.

At the forward side of plate 6 is a depending barrel 18 that is adapted to receive a plunger bolt 19 surrounded by a spring 20 that operates to hold the bolt normally in engagement with the plate 8 and the loose tongue member 12 by projecting its upper end into openings provided in the two parts, as shown in Fig. 3.

21 represents an enlarged head upon the lower end of the bolt whereby it may be withdrawn from engagement with said parts. When the plunger bolt is engaged with the plate 8 the loose tongue member is held at right angles with the axle of the loader, as shown in Fig. 1.

22 represents a vertically arranged box portion at the rear end of member 13, and 23 is a swinging bail pivotally connected with the plate 8 by means of a pin 24 passing through the legs of the bail, and upstanding ears 25 project above the sleeve 11 at opposite sides thereof. When the bail is drawn downward about its pivotal connection its forward end engages with the box portion 22 in a manner securing the loose tongue from sliding forward through the sleeve 11. When the bail is drawn upward and the plunger bolt withdrawn, the loose tongue may be caused to slide forward through the sleeve until arrested by the stop bolt 26 at its rear end contacting with the rear end of the sleeve.

When it is desired to connect the loader

with a wagon the latter is drawn to a position in front of the loader; the plunger bolt being withdrawn, the loose tongue may then be drawn forward, turned to either side as desired, or raised or lowered about the axle of the loader in order to permit the tongue attaching member to be properly engaged. The wagon is then drawn forward until the loose tongue is in a position at right angles with the axle permitting the plunger bolt to engage with the plate 8, and in that position it secures the parts against turning on the axis of the plate connection. The wagon will then be backed up, pushing the loose tongue member rearward until the bail 23 may be swung downward in a manner to engage with the box portion 22 and the plunger bolt be received by the opening in the loose tongue member, in which position they secure the loose member against a forward and longitudinal movement when the loader is in operation.

What I claim as my invention, and desire to secure by Letters Patent, is:

1. A draft connection for hay loaders including, in combination, a draft frame, a plate secured to the forward end of said draft frame, a draft member pivotally connected with said plate and adapted to swing from side to side thereon, a loose tongue slidably mounted upon said draft member, and releasable means operative to secure the parts in adjusted relation.

2. A draft connection for hay loaders including, in combination, a draft frame, a plate secured to the forward end of said draft frame, a draft member pivotally connected with said plate and adapted to swing from side to side thereon, the axis of said member being inclined downward and rearward, a loose tongue slidably mounted upon said draft member, and releasable means operative to secure the parts in adjusted relation.

3. A draft connection for hay loaders including, in combination, a draft frame, a sleeve pivotally connected with the forward end of said draft frame and adapted to swing from side to side relative thereto, means for locking said sleeve against a swinging movement, and a loose tongue member slidably received thereby.

4. A draft connection for hay loaders including, in combination, a draft frame, a sleeve pivotally connected with the forward end of said draft frame and adapted to swing from side to side, means for locking said sleeve against a swinging movement, and a loose tongue member slidably received thereby.

5. A draft connection for hay loaders including, in combination, a draft frame, a sleeve pivotally connected with the forward end of said draft frame and adapted to

swing from side to side, means for locking said sleeve against a swinging movement, a loose tongue member slidably received by said sleeve, and releasable means mounted upon said sleeve and adapted to engage with a fixed part of said tongue member in a manner to prevent a sliding movement thereof.

6. A draft connection for hay loaders including, in combination, a draft frame, a sleeve pivotally connected with the forward end of said draft frame and adapted to swing from side to side, means for locking said sleeve against a swinging movement, a loose tongue member slidably received by said sleeve, a bail pivotally connected with said sleeve and adapted to engage with a part of said loose tongue member in a manner to prevent a sliding movement thereof.

7. A draft connection for hay loaders including, in combination, a draft frame including forwardly converging members, a circular draft plate having rearwardly diverging arms secured to the forward ends of said draft members, said draft plate having a central depending sleeve, a circular draft member having a depending stem received by said sleeve and adapted to turn therein, and a sleeve arranged diametrically upon its upper surface, a loose tongue member slidably received by said diametrically arranged sleeve, and means carried by said circular draft plate to operatively lock the associated parts against relative movement.

8. A draft connection for hay loaders including, in combination, a draft frame including forwardly converging members, a circular draft plate having rearwardly diverging arms secured to the forward ends of said draft members, said draft plate having a central depending sleeve, a circular draft member having a depending stem received by said sleeve and adapted to turn therein, and a sleeve arranged diametrically upon its upper surface, a loose tongue member slidably received by said diametrically arranged sleeve, a depending barrel portion forming part of said draft plate, a spring pressed plunger bolt received by said barrel portion and adapted to engage with said circular draft member in a manner to prevent a turning movement thereof.

9. A draft connection for hay loaders including, in combination, a draft frame including forwardly converging members, a circular draft plate having rearwardly diverging arms secured to the forward ends of said draft members, said draft plate having a central depending sleeve, a circular draft member having a depending stem received by said sleeve and adapted to turn therein, a sleeve arranged diametrically upon its upper surface, and a bail pivotally connected therewith, a loose tongue member

slidably received by said diametrically arranged sleeve, said bail adapted to engage with said loose tongue member in a manner to prevent a sliding movement thereof in one direction, a depending barrel portion forming part of said draft plate, a spring pressed plunger bolt received by said barrel portion and adapted to engage with said circular draft member in a manner to prevent a turning movement thereof.

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