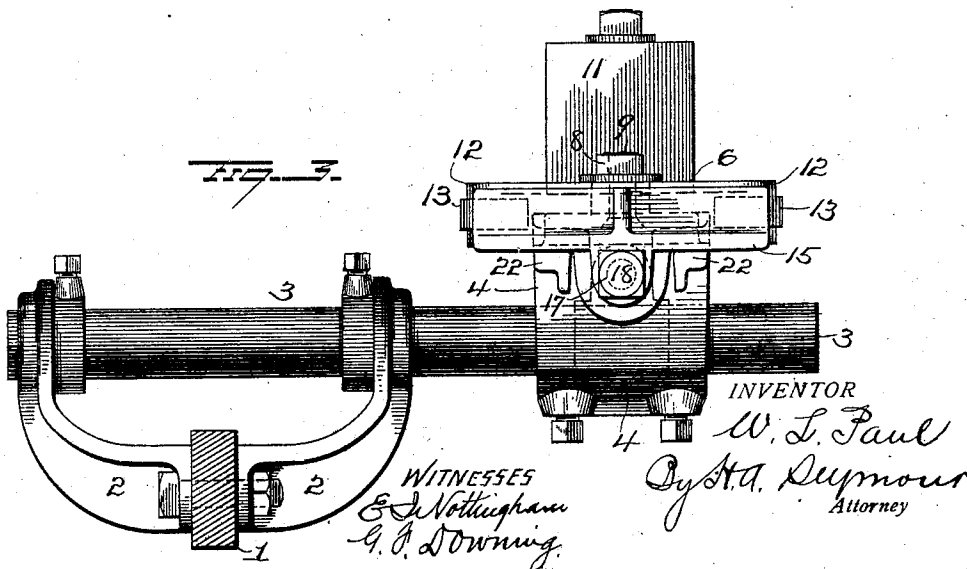
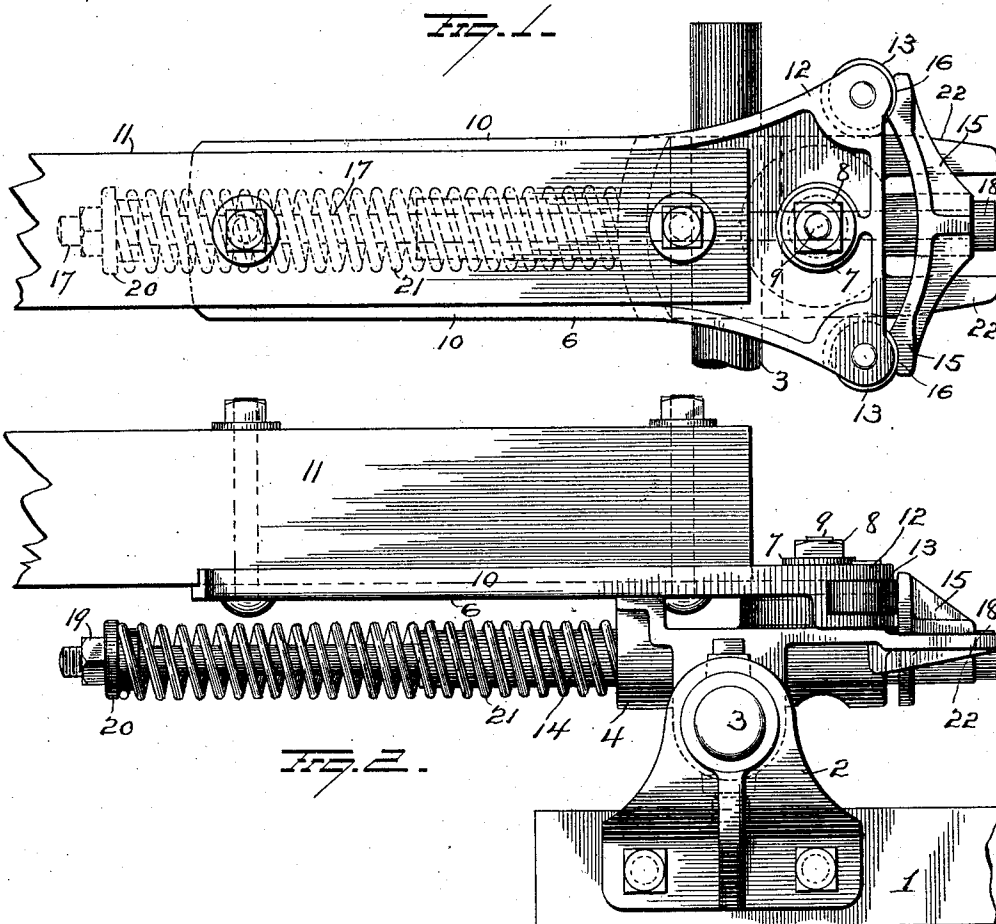


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POLE ATTACHMENT FOR SULKY PLOWS.
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992,585.

Patented May 16, 1911.

2 SHEETS—SHEET 1.

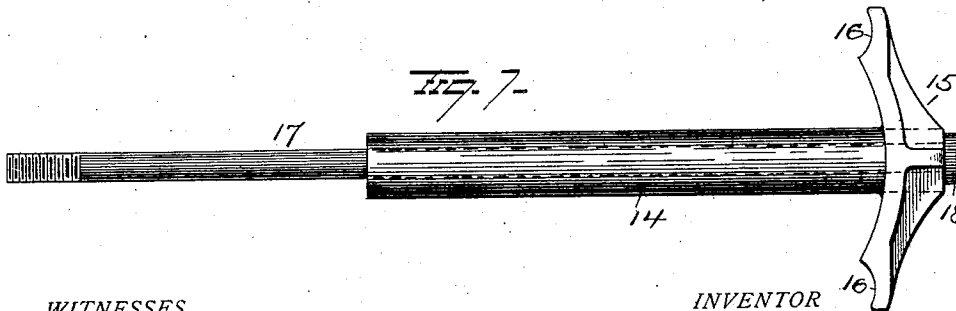
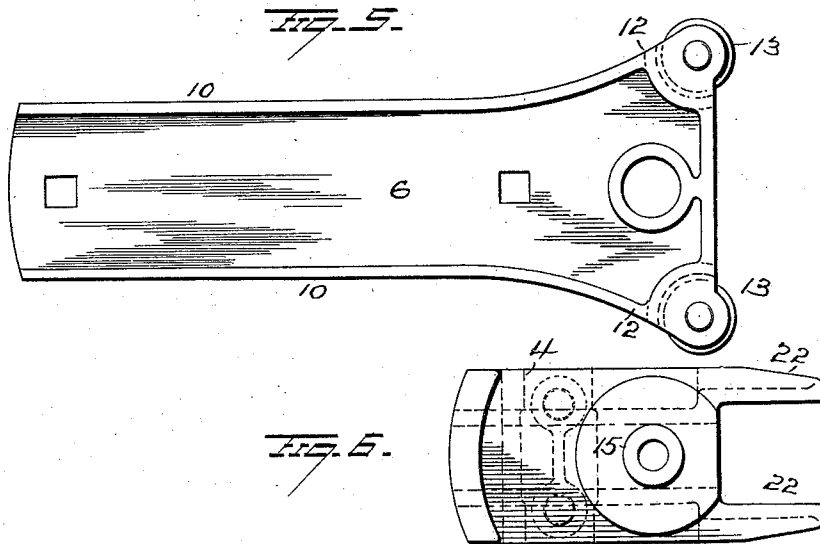
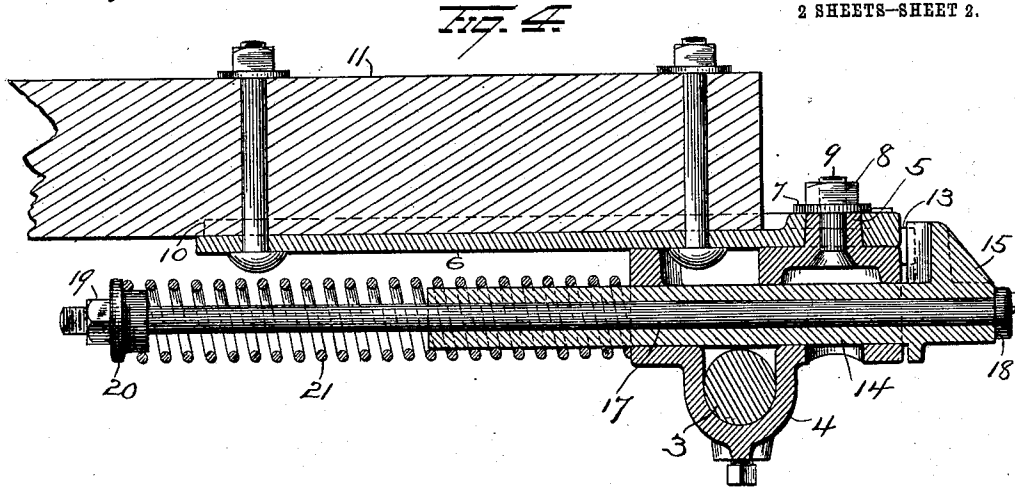


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2 SHEETS-SHEET 2.



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POLE ATTACHMENT FOR SULKY-PLOWS.

992,585.

Specification of Letters Patent.

Patented May 16, 1911.

Application filed October 4, 1909. Serial No. 520,858.

To all whom it may concern:

Be it known that I, WILLIAM L. PAUL, of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Pole Attachments for Sulky-Plows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in pole attachments for sulky plows,—the object of the invention being to provide means which will facilitate the guiding of the plow while the same is being transported and admit of the turning of the pole before the plow is drawn around.

A further object is to provide a pole attachment for sulky plows which will permit a normally rigid connection between the pole and the plow frame but which will allow the pole to yield laterally at a given strain in turning the plow.

With these objects in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view illustrating a pole attachment embodying my invention. Fig. 2 is a side elevation of the same. Fig. 3 is an end view. Fig. 4 is a longitudinal sectional view, and Figs. 5, 6 and 7 are views of details of construction.

1 represents the forward portion of a plow beam or a plow frame, to which suitable means may be attached for affording a support for my improved pole attachment. In the present instance, I have shown a bracket 2 secured to the forward portion of the plow beam or frame and have mounted a bar 3 in this bracket. A frame or casting 4 is mounted upon the bar 3 and provided with an upwardly projecting pintle 5 to which the forward end of a lever plate 6 is pivoted. Vertical displacement of this lever-plate is prevented by means of a washer 7 held in place by a nut 8 on a bolt 9 which passes through the pintle 5. The lever-plate 6 is provided at its longitudinal edges with ribs or flanges 10 and upon said lever-plate, between the ribs or flanges thereof, the rear portion of a pole or tongue 11 is securely bolted, and thus the pole or tongue is pivotally connected with the plow beam or

frame. The rear end of the lever-plate 6 is provided at respective sides of its pivotal support, with laterally projecting arms or members 12, in each of which a roller 13 is mounted.

A tubular shaft 14 is mounted in the frame or casting 4 and is capable of longitudinal movement through the latter. The rear end of the tubular shaft 14 is provided with a head 15 which projects laterally in both directions from said shaft and is provided near its respective ends with bearings 16 against which the rollers 13 normally rest. A rod 17 passes through the tubular shaft 14 and the head 15 thereon and extends an appreciable distance forwardly from the front end of said tubular shaft. The rear end of the rod 17 is provided with a head 18 which bears against the head 15 and the forward end of said rod 17 is threaded for the accommodation of a nut 19 which retains a flanged collar 20 in place on said rod 17. A spring 21 encircles the forward portion of the tubular shaft 14 and also the forward portion of the rod 17,—the rear end of this spring bearing against the frame or casting 4 and the forward end against the flanged collar 20.

From the construction and arrangement of parts above described, it will be seen that the pressure of the head 15 (exerted by the spring 21) against the rollers 13 in the laterally projecting portions 12 of the lever-plate 6, will operate to maintain the pole or tongue 11 normally rigid and parallel with the axis of the plow frame, but that when sufficient lateral strain is brought to bear upon the tongue or pole, the latter will be permitted to yield and turn on its pivotal connection with the frame or casting 4, due to the pressure of one or the other of the rollers 13 against one end or the other of the head 15 and thus compress the spring 21. When the pole is thus turned, one of the rollers 13 will be caused to run on the front face of the head 15, while the other roller 13 will move away from said head. It is apparent that when the lateral strain shall have been removed, the spring 21, acting on the head 15 and tending to force the latter forwardly, will cause said head 15 by its coöperation with one or the other of the rollers 13 on the lever-plate 6 to tend to bring the pole or tongue to its normal position. In order to prevent the head 15 from turning on the rod

17, the frame or casting 4 may be provided with arms 22 disposed under said head 15 at respective sides of its center. The tension of the spring 21 may be adjusted by means of the nut 19 and while the pole is normally rigid as related to the plow beam, it may yield or trip at a given strain in turning and admit of being turned before the plow is drawn around.

10 Various slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope.

15 I claim as new and desire to secure by Letters Patent, is,—

1. The combination with a tongue or pole and connecting means affording vertical and lateral pivotal support for the tongue or pole, of two heads, one connected with the tongue or pole and the other supported independently of the latter, one of said heads having recesses and the other having projecting portions to enter said recesses, and a spring normally pressing one of said heads toward the other to normally resist lateral movement of the tongue or pole.

2. The combination with a tongue or pole and means for supporting the same and permitting it to have vertical and lateral movement, of a head secured to the tongue or pole, a head having recesses to receive the ends of the first mentioned head, and a spring connected with the recessed head and tending to press it toward the head on the tongue to normally resist lateral movement of the latter.

3. The combination with a support, a frame or casting and means pivotally connecting the latter to said support, of a tongue or pole mounted on said frame or casting and connected therewith by a vertical pivot, a head carried by said tongue or pole, a spring-actuated bar mounted in the pivotally supported frame or casting, and a head at one end of said bar and cooperating with the head carried by the tongue or pole, whereby the tongue or pole will be yieldingly held against lateral movement but be permitted to have free vertical movement.

4. The combination with a support and a horizontal bar mounted therein to turn, of a frame or casting secured to said bar, a member pivotally mounted upon the frame or casting for the reception of a tongue or pole, said member provided with a head, two rollers mounted in projecting portions of said head, a longitudinally movable bar

mounted to said frame or casting, a head on said bar and having recesses to receive the rollers on the first mentioned head, and a spring acting on said bar to press the head thereon toward the first mentioned head for resisting lateral movement of the tongue or pole.

5. In devices of the character described, the combination with a frame or casting, a lever plate pivotally mounted thereon for the reception of a pole, and rollers carried by said lever-plate at respective sides of the pivotal support thereof, of a tubular shaft mounted in the frame or casting and provided at its rear end with a head having laterally projecting portions to cooperate with said rollers, a rod passing through said tubular shaft and its head and provided at one end with means to engage said head, a spring encircling said rod and bearing at one end against said frame or casting, and means for adjustably connecting the other end of the spring with said rod.

6. In devices of the character described, the combination with a frame or casting, of a lever-plate pivotally mounted thereon for the reception of a pole and provided at respective sides of its pivotal support with rollers, a tubular shaft mounted in said frame or casting and provided at its rear end with a head having laterally projecting portions to cooperate with said rollers, arms projecting from the frame or casting and disposed under said head at respective sides of the center thereof, a rod passing through said tubular shaft and its head and provided at one end with means engaging said head, a spring encircling said rod and bearing at one end against the frame or casting, and means connecting the other end of said spring with the rod.

7. The combination with a tongue or pole and connecting means affording vertical and lateral pivotal support for the tongue or pole, of two heads, one connected with the tongue or pole and the other supported independently of the latter, said heads having their ends normally in contact, and a spring normally pressing one of said heads toward the other to normally resist lateral movement of the tongue or pole.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

WILLIAM L. PAUL.

Witnesses:

THOS. B. FREEMAN,
DONALD A. HIMES.