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B. H. STOVER.  
MEANS FOR RAISING AND LOWERING GANG PLOWS.  
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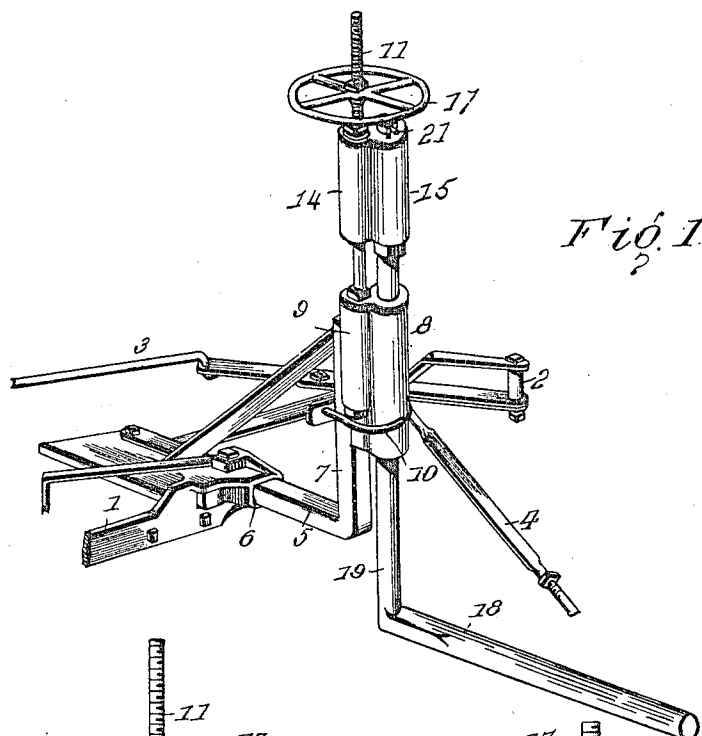


Fig. 1

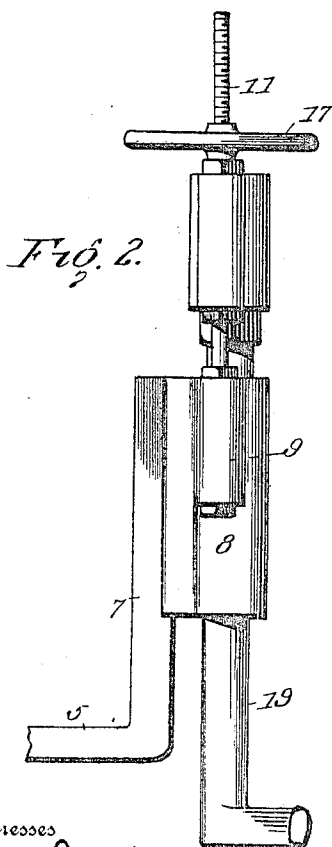


Fig. 2

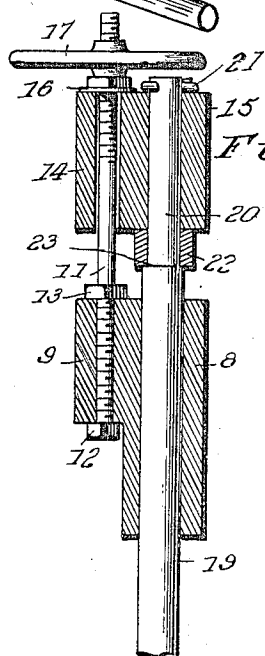


Fig. 3

Witnesses  
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# UNITED STATES PATENT OFFICE.

BENJAMIN H. STOVER, OF LA CROSSE, KANSAS.

## MEANS FOR RAISING AND LOWERING GANG-PLOWS.

No. 831,752.

Specification of Letters Patent.

Patented Sept. 25, 1906.

Application filed November 9, 1905. Serial No. 286,529.

*To all whom it may concern:*

Be it known that I, BENJAMIN H. STOVER, a citizen of the United States of America, and a resident of La Crosse, in the county of Rush and State of Kansas, have invented certain new and useful Improvements in Means for Raising and Lowering Gang-Plows, of which the following is a specification.

This invention relates to certain new and useful improvements in devices for raising and lowering gang-plows.

It has for its object, among others, to provide a simple and improved device for this purpose designed to take the place of the long, heavy, and cumbersome lever heretofore employed and which can be more easily operated.

It has for a further object to provide a simple and cheap device that can be readily applied to any make of plow and which shall be strong and durable and not liable to injury or breakage in operation.

It can be operated while the plows are in motion as well as while they are standing still. When set so that the plows will operate at a certain depth, they are absolutely certain to remain at that depth until changed, irrespective of the condition of the plows. The device can be actuated to either raise or lower the plows, so as to allow them to pass over an obstruction or clear of the ground while the machine is being transported from place to place.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically set forth in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view showing the application of my improvement. Fig. 2 is an elevation of the parts constituting my invention. Fig. 3 is a vertical section through the same.

Like numerals of reference indicate like parts throughout the several views.

Referring now to the details of the drawings, 1 designates a portion of the frame, and 2 the clevis to which the horse or horses are designed to be attached.

3 is a brace-rod extending rearward to the frame, while 4 is a brace-rod designed to be connected at one end to the clevis and at the

other end in any suitable way with the stub-axle 18.

5 is a horizontal arm engaged in a socket 6 in the frame 1 and having a vertical portion 7, which has rigid therewith the parallel tubular members 8 and 9, preferably integral, as seen in Figs. 2 and 3, a suitable clamping-band 10 being employed, if necessary, as seen in Fig. 1.

11 is a vertical rod extended through the tubular member 9 and having a head or nut 12, bearing against the under side of the member 9, and a nut 13, bearing against the upper side of said member. This rod 11 passes through the tubular member 14, rigid and preferably integral with the member 15, as seen in Fig. 3.

16 is a washer or plate on the rod 11, and bearing on the upper end of the member 14 and 17 is a hand-wheel engaged with the threads of said rod and bearing on said washer, as seen best in Fig. 3.

18 is the stub-axle, designed to carry the front furrow-wheel, (not shown,) and this stub-axle has the vertical cylindrical portion 19, which moves loosely within the member 8, and the reduced cylindrical portion 20, which extends through the tubular member 15, being held against longitudinal movement by the cotter-pin or the like 21 at the upper end, and the collar or analogous device 22, disposed between the lower end of the member 15 and the shoulder 23 of the cylindrical portion 19.

With the parts constructed and arranged substantially as above set forth the operation is simple and will be readily understood. By the turning of the hand-wheel 17 the stub shaft or axle 18 is raised or lowered to adjust the front furrow-wheel, and consequently the plows, to the required depth, and when once adjusted they are held in such position until again changed by the manipulation of the hand-wheel. The plows can be raised so as to clear obstructions in moving from place to place, and the device can be readily applied to any make of plow.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as new is—

1. A raising and lowering attachment for plows comprising a member for detachable connection with the frame having a vertical portion, a tubular member rigid with said

vertical portion to receive an extension on the wheel-axle, a tubular member rigid with the extension of the wheel-axle and an adjusting-screw rigid with the first-mentioned tubular member and slidable through the last-mentioned tubular member.

2. A raising and lowering attachment for plows comprising a member for attachment to the plow-frame and having a vertical portion, a tubular member rigid therewith and having tubular extension, a wheel-axle having a vertical extension slidable through said tubular member, a tubular member rigid with said extension of the wheel-axle and having a tubular extension, and means connected with the first-mentioned tubular extension and working through the tubular extension of the upper tubular member.

3. A raising and lowering attachment for plows comprising a member for attachment to the plow-frame and having a vertical portion, a tubular member rigid therewith and having tubular extension, a wheel-axle having a vertical extension slidable through said tubular member, a tubular member rigid with said extension of the wheel-axle and having a tubular extension, means connected with

the first-mentioned tubular extension and working through the tubular extension of the upper tubular member and a hand-wheel on said means.

4. An attachment for the purpose described comprising a horizontal member fitted to a socket in the frame and having a vertical portion, a tubular member rigid with said vertical portion and having a tubular side extension, a wheel-axle having a cylindrical vertical portion working through said tubular member, and having a reduced portion and shoulder, a tubular member held against longitudinal movement on said reduced portion and shoulder and having parallel tubular side extension, a screw-threaded rod rigid with the lower side extension and movable through the upper side extension, and a hand-wheel on said rod for raising and lowering the wheel-axle.

Signed by me at La Crosse, Kansas, this 6th day of November, 1905.

BENJAMIN H. STOVER.

Witnesses:

STEVE HOLMES,  
W. J. HAYES.