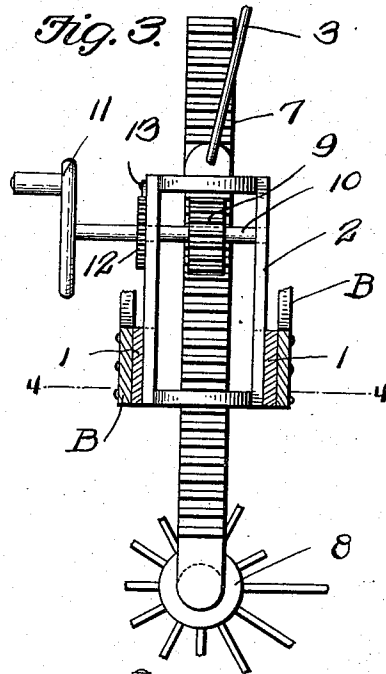
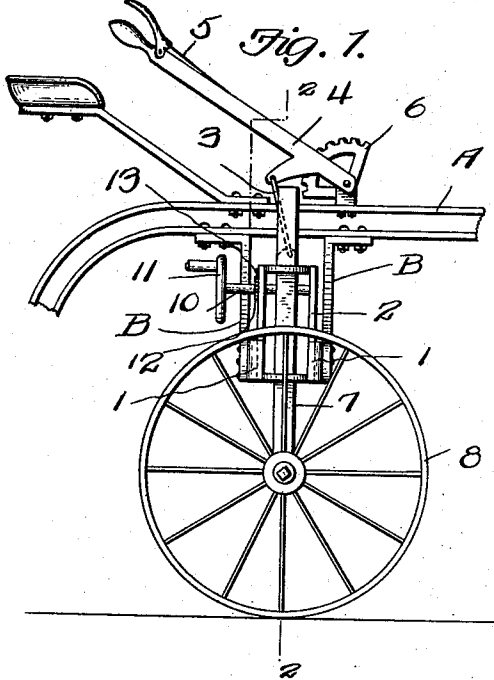


H. HEER.  
 PLOW.

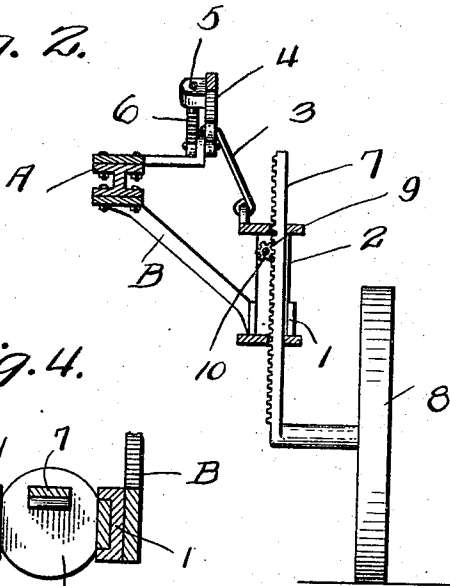
APPLICATION FILED MAY 25, 1910.

1,014,470.

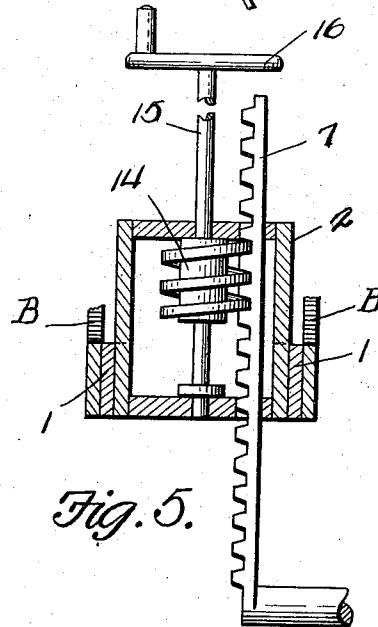
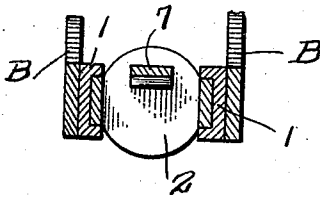
Patented Jan. 9, 1912.



*Fig. 2.*



*Fig. 4.*



Inventor

Henry Heer,

By Victor J. Evans

Attorney

Witnesses

C. C. Richardson  
 Wm. Bagger

# UNITED STATES PATENT OFFICE.

HENRY HEER, OF OGDEN, KANSAS.

PLOW.

1,014,470.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed May 25, 1910. Serial No. 563,456.

*To all whom it may concern:*

Be it known that I, HENRY HEER, a citizen of the United States, residing at Ogden, in the county of Riley and State of Kansas, have invented new and useful Improvements in Plows, of which the following is a specification.

This invention relates to sulky plows, and it has for its object to provide simple and efficient means, whereby a very minute and accurate vertical adjustment of the plow frame may be obtained, relative to the supporting wheels, whereby a correspondingly accurate adjustment of the plow may be obtained so as to enable the same to operate precisely at the desired depth in the soil. Heretofore, the desired adjustment has been obtained by means of a hand lever connected by a link with a slide carrying the wheel, said lever being provided with a stop member engaging the teeth of a segment rack, but it has been necessary to adjust the lever at least to the extent of one notch at each adjustment. Under the exigency of modern farming, it is frequently desirable to obtain a much more accurate adjustment and with this object in view, the present invention is devised, said invention consisting in the improved construction and novel arrangement or combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention; it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention, may be resorted to when desired.

In the drawings:—Figure 1 is a side elevation showing a portion of the frame of a sulky plow equipped with the invention. Fig. 2 is a vertical sectional view taken on the plane indicated by the line 2—2, in Fig. 1. Fig. 3 is a sectional elevation, enlarged, taken from the side opposite from that seen in Fig. 1. Fig. 4 is a horizontal sectional detail view taken on the line 4—4, in Fig. 3. Fig. 5 is a vertical sectional view, illustrating a modification.

Corresponding parts in the several views are denoted by the like characters of reference.

The plow frame A is provided with guide

members 1 to accommodate a vertically movable slide 2, which is connected by a link 3 with a hand lever 4, the latter being equipped with the usual stop member, partly shown at 5, and adapted to engage the segment rack 6. The slide 2, in the present instance, consists of a suitably constructed frame, wherein a rack bar 7 is vertically movable, said rack bar carrying the transporting wheel 8. For the purpose of effecting adjustment of the wheel carrying rack bar, there may be provided a pinion 9, engaging said rack bar, said pinion being mounted upon a shaft 10, which is supported for rotation in the frame 2, said shaft 10 equipped with a hand wheel 11 and with a ratchet wheel 12, engaged by a spring actuated pawl 13. It is obvious that by rotating the hand wheel, the wheel carrying rack bar may be very accurately adjusted, thus effecting vertical adjustment of the frame A with reference to the wheel. If a more extensive adjustment is required, it may be effected in the usual manner by means of a hand lever 4.

In Fig. 5 of the drawing, I have illustrated a slight modification under which the wheel carrying rack bar 7 is meshed with a worm 14 upon a vertically disposed shaft 15, which is supported for rotation in the slide or frame 2, said shaft being provided at its upper end with a hand wheel 16. Under this construction, it is obvious that the pawl and ratchet means may be dispensed with.

As will be seen from the foregoing description, taken in connection with the drawing, it is very evident that two separate and independent adjusting means have been provided, the hand lever 4 being capable of effecting a comparatively extensive adjustment of the wheel carrying means, while a more limited, and therefore a more accurate, adjustment may be effected by the means provided for the adjustment of the rack bar upon which the wheel is directly supported.

Having thus described my invention, I claim:—

1. A frame, a suitable supporting slide, lever means to effect vertical adjustment of the slide, and wheel carrying means movable in the slide and vertically adjustable with reference thereto and independently thereof.

2. A frame having guides, a slide verti-

— cally movable upon the guides, a wheel-  
carrying rack bar vertically movable in the  
slide, a hand lever fulcrumed upon the  
frame, a link connecting the lever with the  
5 slide, and means carried by the slide for  
adjusting and supporting the wheel-carry-  
ing rack bar independently of said slide.

In testimony whereof I affix my signature  
in presence of two witnesses.

HENRY HEER.

Witnesses:

IRA N. CHAPMAN,  
JAMES W. WALLER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,  
Washington, D. C."