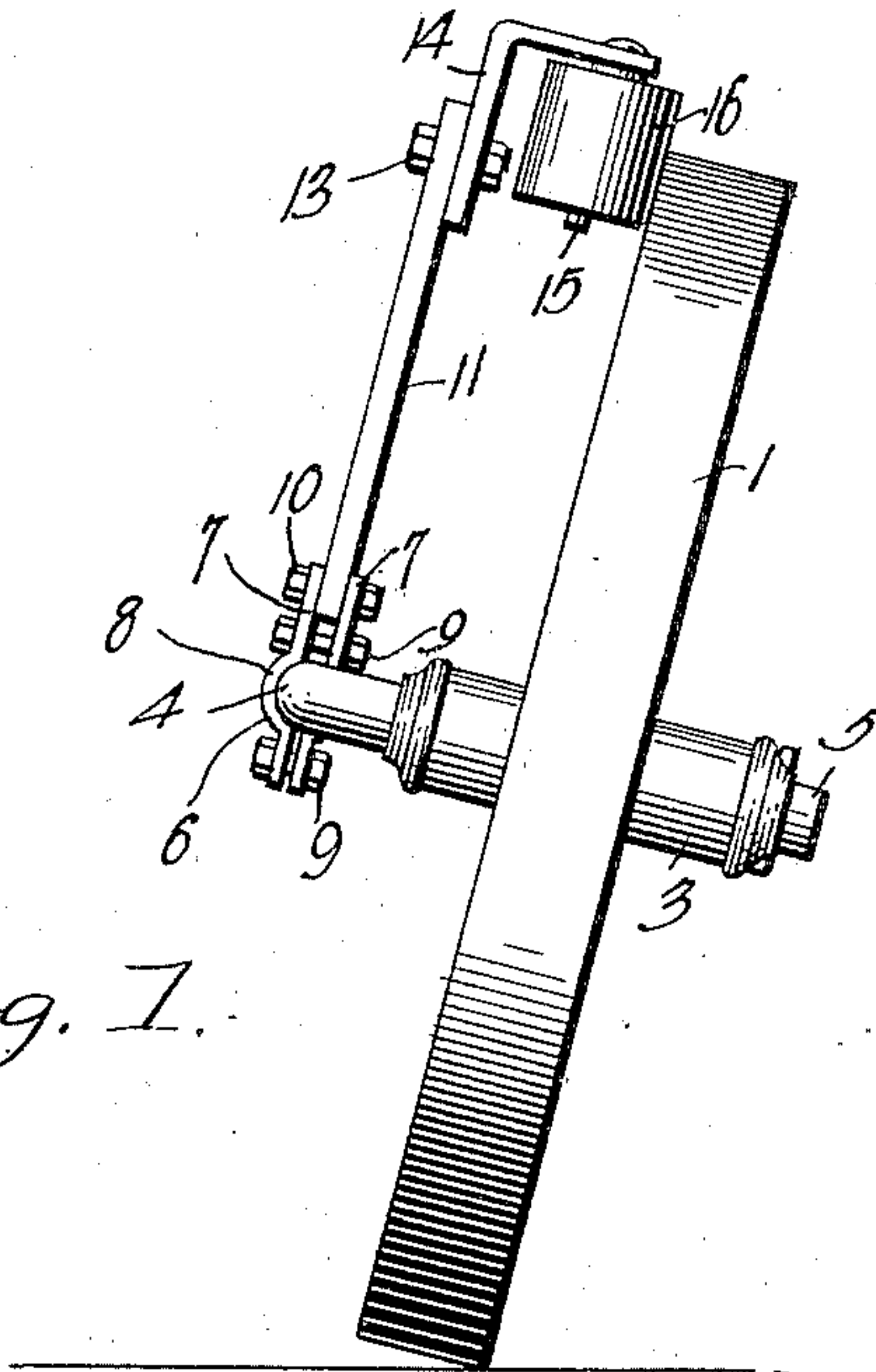


No. 725,241.

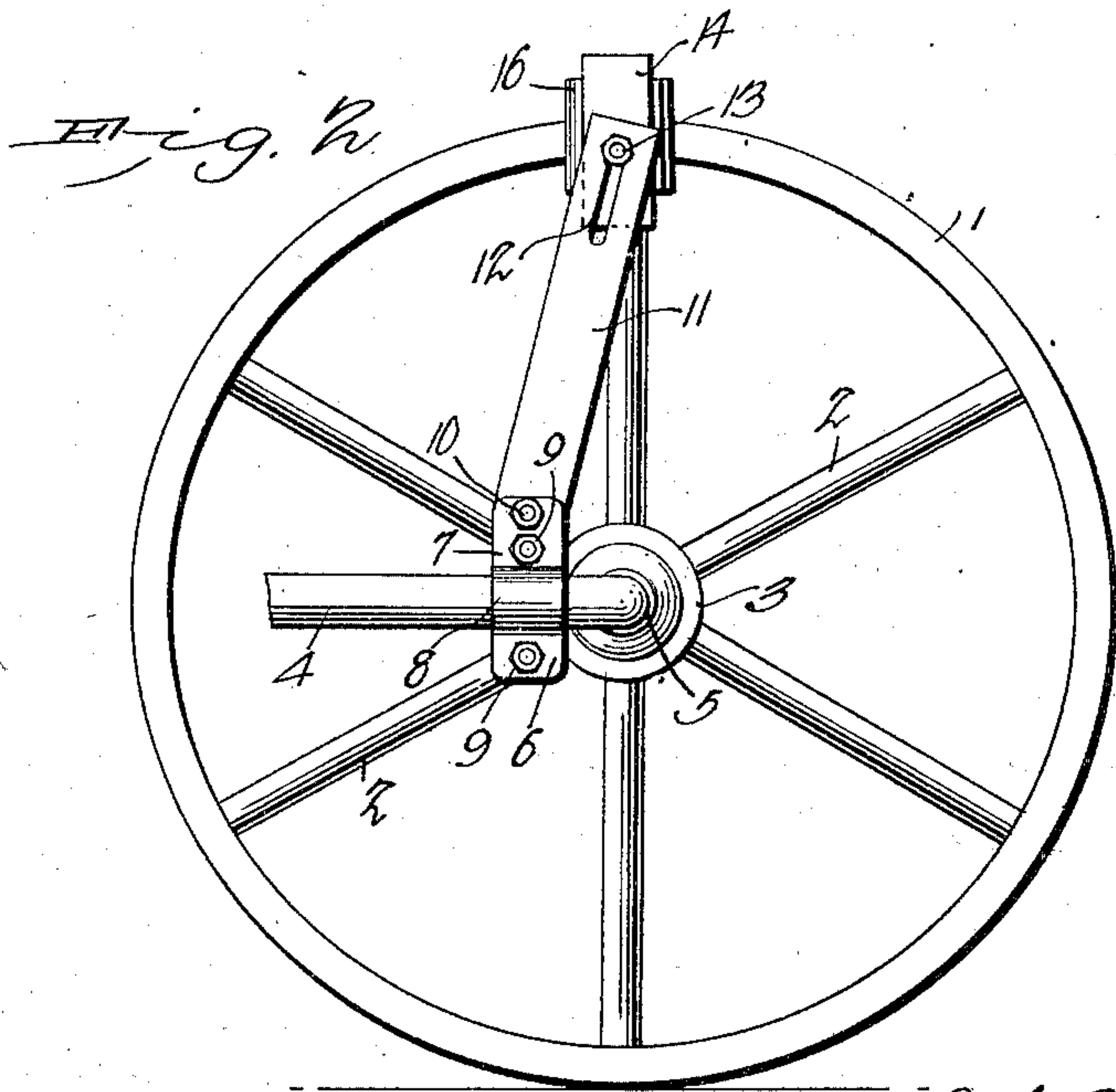
PATENTED APR. 14, 1903.

C. A. GLASS.  
ATTACHMENT FOR WHEELS OF SULKY PLOWS.  
APPLICATION FILED OCT. 11, 1902.

NO MODEL.



*Fig. 1.*



*Fig. 2.*

Witnesses  
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# UNITED STATES PATENT OFFICE.

CHARLES ALEXANDER GLASS, OF GODDARD, KANSAS.

## ATTACHMENT FOR WHEELS OF SULKY-PLOWS.

SPECIFICATION forming part of Letters Patent No. 725,241, dated April 14, 1903.

Application filed October 11, 1902. Serial No. 126,890. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES ALEXANDER GLASS, a citizen of the United States, residing at Goddard, in the county of Sedgwick and State of Kansas, have invented a new and useful Attachment for Wheels of Sulky-Plows, of which the following is a specification.

This invention relates to an improved attachment for the wheels of sulky-plows whereby when the axle-stubs and the boxes of the wheels become worn the slack may be readily taken up, so that the wheels shall be caused to run steady.

The invention contemplates, furthermore, a device whereby the strain on the wheel caused by the thrust of the plow urging the wheel in the direction of the land side of the furrow shall be balanced by means of a supporting wheel or pulley at the top of the furrow-wheel against such strain, thus preventing the said furrow-wheel from binding in the hub, and hence reducing friction and draft and increasing the life of the box and spindle.

My invention thus may be said to consist in a small wheel, pulley, or revoluble member supported by the frame of the plow structure in such a manner as to have the necessary range of adjustment with relation to the rim of the furrow-wheel. This result may be attained in a number of different ways. Specially-constructed plows may call for specially-devised supporting means for the pulley or revoluble member which is intended to cooperate with and to support the rim of the furrow-wheel. In the manufacture of new plows the said revoluble member in which my invention resides may be built into the frame of the machine, or, in other words, the said frame may be specially constructed with a view to receiving the said revoluble member as a part thereof; but by my present invention I also provide a frame or supporting device for the said revoluble member which shall be capable of being attached to practically any sulky-plow or riding-plow which at the present time is in general use, my object being to provide a supporting and adjusting device by means of which the revoluble member or pulley which forms the essence of my invention may be properly adjusted with relation to the furrow-wheel of

the plow to which it is attached in such a manner that the main and essential object of my invention shall be easily, simply, and satisfactorily attained.

My invention therefore may be said to consist, specifically, first, in the combination, with the furrow-wheel of a plow, of a bearing-wheel, pulley, or revoluble member disposed to enable the upper inner edge of the rim of the furrow-wheel to resist the thrust of the plow urging the wheel in the direction of the land side of the furrow; second, in the improved means whereby such pulley or revoluble member may be connected with or attached to the frame of any ordinary sulky-plow in operative position, as will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is an edge view of a wheel and a portion of the axle of the same equipped with my improved attachment. Fig. 2 is a side view of the same.

Corresponding parts in both figures are indicated by similar characters of reference.

1 designates the wheel, which is of ordinary construction, having the spokes 2 and hub 3. The portion of the axle shown at 4 is provided with the usual stub 5, upon which the wheel is journaled, the axle itself being the ordinary crank-axle usually employed in sulky or riding plows.

A clip 6, mounted upon the axle 4 closely adjacent to the stub 5, is composed of two members 7 7, each having a rounded portion 8, whereby the said members are fitted to embrace the axle and to be firmly secured thereon by means of connecting-bolts 9. An additional bolt or connecting member 10 near the upper end of the clip serves for the attachment of an arm 11, which may be tilted to various points of adjustment, as will be readily understood. The outer end of the arm 11 is provided with a slot 12 for the reception of a bolt 13, carrying a frame or bracket 14, having suitable means, such as a pin or spindle 15, whereby a pulley or revoluble member 16 is journaled to said frame. In the accompanying drawings the frame 14 has been illustrated as being simply an L-shaped bracket; but I desire it to be understood that any other suitable and convenient form of frame may be used.



It will be seen from the foregoing that the clip 6 is adjustable with relation to the axle 4; but the arm 11 is capable of being adjusted laterally with relation to the clip, its normal disposition being practically parallel to the wheel, although, as already stated, by adjusting the clip 6 it may be tilted in the direction of the wheel. Finally the bracket 14, carrying the revoluble member 16, is adjustable not only radially with relation to the wheel, but also pivotally to its point of attachment, so that it may be conveniently and very easily adjusted to support the edge of the rim of the wheel at any point of said rim and in either a radial or in an approximately tangential relation to said rim should it be desired to so adjust it.

The operation of the invention will be very readily understood. When the plow, of which the furrow-wheel 1 is a member, is in operation, the strain or thrust exercised upon the wheel in the direction of the land side of the furrow will be counteracted by the revoluble member 16, which is adjusted to support the opposite edge of the rim at the diametrically opposite side of the wheel, as will be very obvious by reference to the drawings. Excessive strain and wear upon the hub and axle are thereby avoided, and the plow is consequently caused to run more smoothly and with lighter draft.

By the employment of this improved device frictional wear upon the hub and axle becomes very much reduced and the draft required to operate the plow proportionately lightened. Such slack as may be occasioned by wear previous to the attachment of my invention may be taken up and compensated for and a wheel already considerably worn will be enabled to run with a steadiness which cannot be attained by the use of washers for the purpose of taking up the wear.

I have described in the foregoing a very simple and therefore a preferable form of my invention; but I would desire it to be understood that I do not limit myself to the exact structural details herein shown, but reserve to myself the right to any changes, alterations, and modifications which may be resorted to without departing from the spirit and scope of my invention or detracting from the utility thereof.

It will also be understood that the device herein specifically described is capable of being attached to and used in connection with practically any riding-plow in existence, the range of adjustment of the pulley or revoluble member 16 with relation to the fur-

row-wheel being sufficiently extensive to enable the device to be used in connection with frame structures of widely-varying patterns. When the device is applied to plows newly constructed, it will be possible to greatly simplify the supporting means of the pulley without departing in any degree from the spirit of my invention.

Having thus fully described my invention, what I claim is—

1. A device of the class described, comprising a wheel, a revoluble member, supporting means for the latter, and means for adjusting the same radially with relation to the wheel.

2. A device of the class described, comprising a wheel, a revoluble member, means for supporting said revoluble member, and means for adjusting said revoluble member radially and tangentially with relation to the wheel.

3. A device of the class described, comprising a wheel, a revoluble member and a supporting-frame for said revoluble member having pivotal and slidable adjustment.

4. A device of the class described, comprising a wheel, a crank-axle, a clip upon the latter, and an arm connected pivotally with said clip and supporting a revoluble member adapted to engage the edge of the rim of the wheel.

5. A device of the class described, comprising a wheel, a crank-axle, an arm supporting a revoluble member adapted to engage the edge of the rim of the wheel, and means for connecting said arm with the axle, adjustably, to regulate the position of the revoluble member, with relation to the rim of the wheel.

6. A device of the class described, comprising a wheel, a crank-axle, a clip upon said axle, an arm mounted between the members of said clip upon a single bolt upon which it may have pivotal adjustment, and a revoluble member supported by said arm and adapted to engage the edge of the rim of the wheel.

7. A device of the class described, comprising a wheel, a crank-axle, a clip upon said axle, an arm connected adjustably with said clip, a frame having pivotal and slidable connection with said arm, and a revoluble member journaled in said frame and adapted to engage the edge of the rim of the wheel.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHARLES ALEXANDER GLASS.

Witnesses:

H. C. LEINEBEN,  
W. W. GRAVES.