

No. 773,608.

PATENTED NOV. 1, 1904.

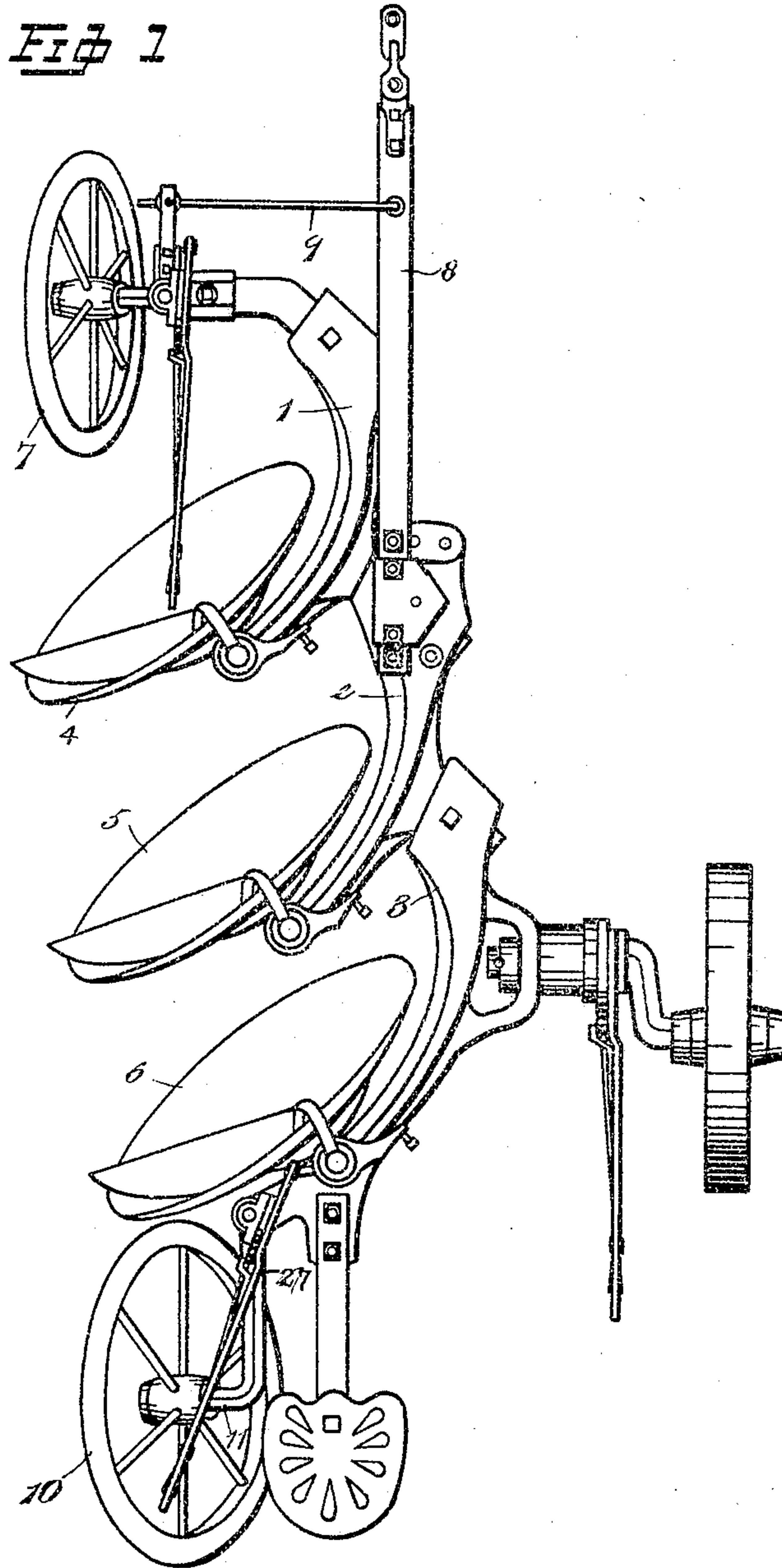
C. WAGNER.

TRAILING FURROW WHEEL ATTACHMENT FOR DISK PLOWS.

APPLICATION FILED JULY 7, 1903.

NO MODEL.

3 SHEETS—SHEET 1



Inventor

Witnesses

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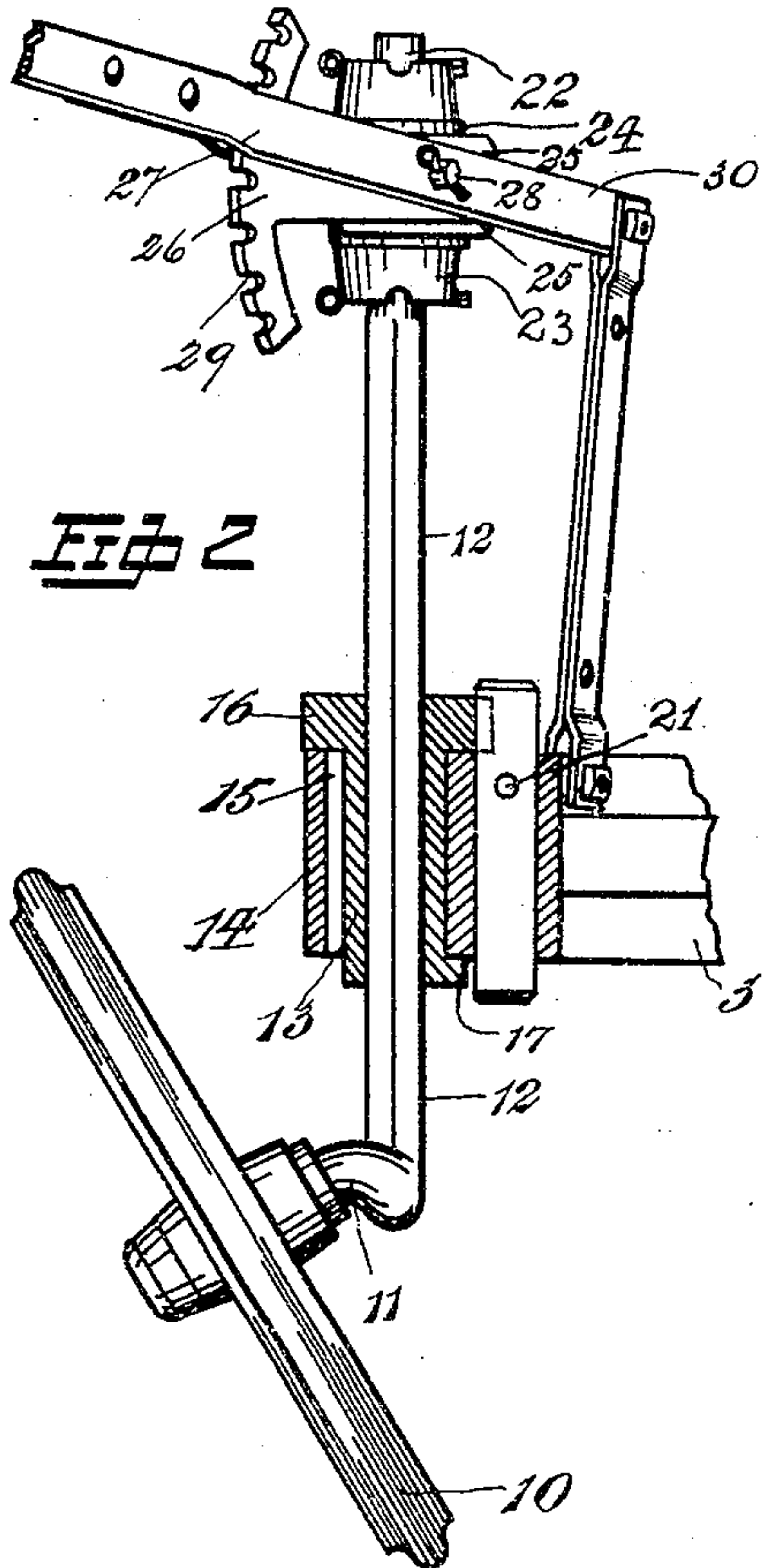


Fig 2

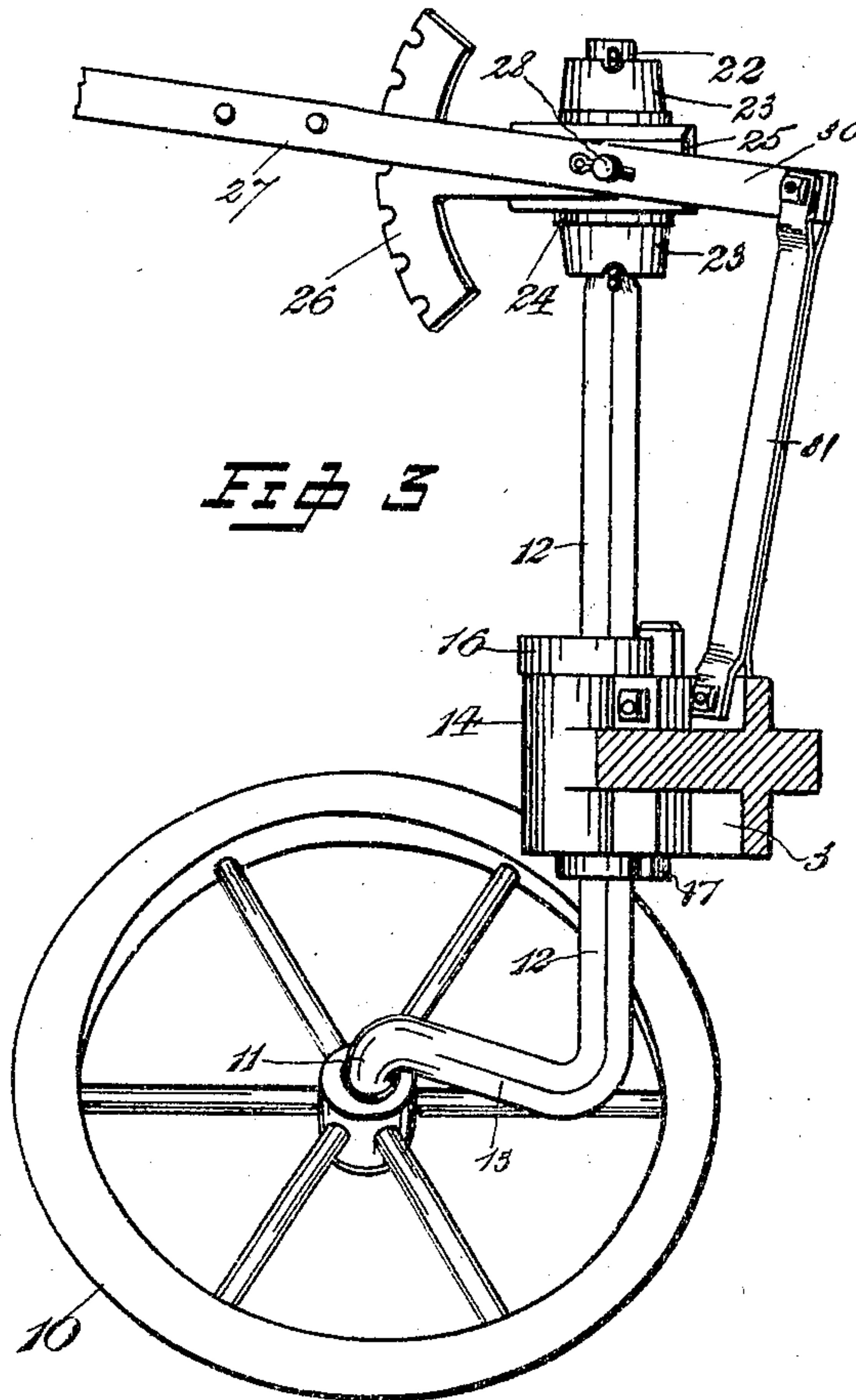
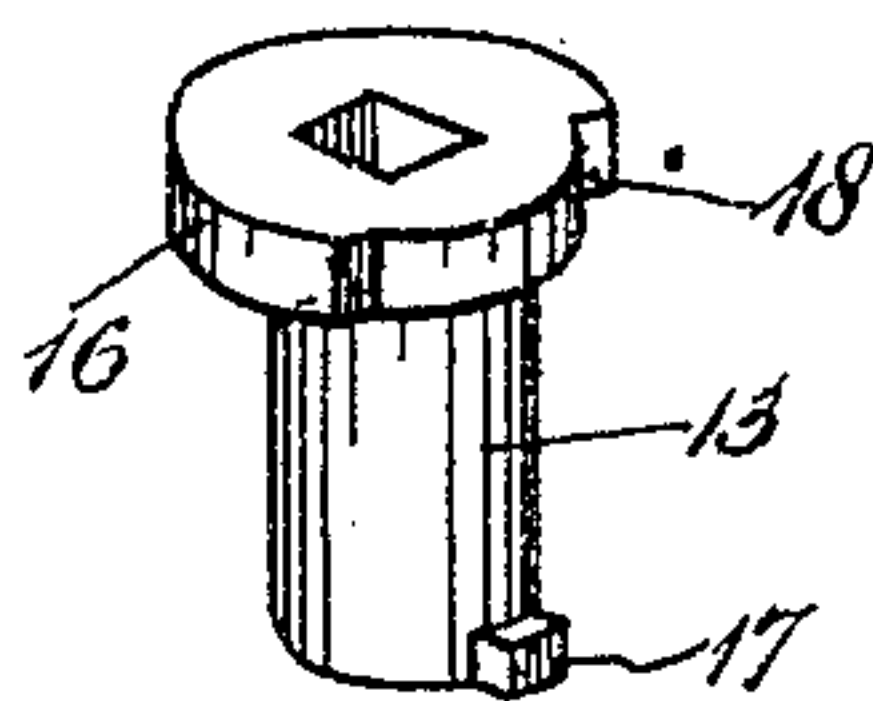


Fig 3

Fig 4



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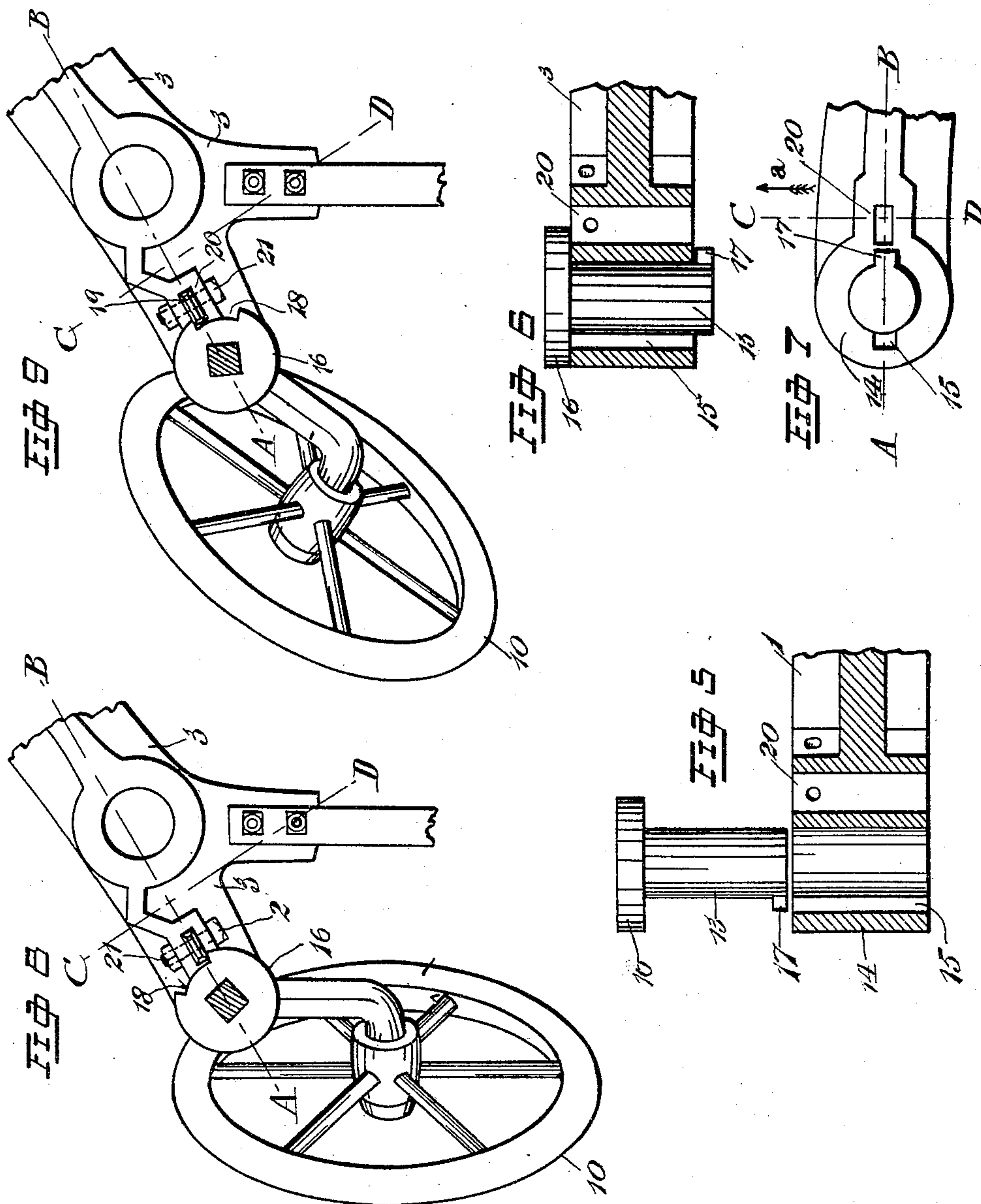
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

CHAPIN WAGNER, OF INDIANAPOLIS, INDIANA.

TRAILING FURROW-WHEEL ATTACHMENT FOR DISK PLOWS.

SPECIFICATION forming part of Letters Patent No. 773,608, dated November 1, 1904.

Application filed July 7, 1903. Serial No. 164,575. (No model.)

To all whom it may concern:

Be it known that I, CHAPIN WAGNER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Trailing Furrow-Wheel Attachments for Disk Plows, of which the following is a specification.

My invention relates to certain new and useful improvements in caster or trailing furrow-wheels for disk plows; and it consists in a new arrangement of parts hereinafter more fully described, and particularly pointed out in the claims.

The object of this invention is to provide a simple, durable, and effective means of swiveling the rear furrow-wheel to form a pivotal or caster wheel of said furrow-wheel, and which mechanism is designed with the special view of not only being durable, but also for simplicity in construction and effective operation; also, to provide means whereby the horizontal swing of the caster or trailing furrow-wheel will be limited in extent or to a certain fixed swing. I attain these objects by means of the mechanism illustrated in the accompanying drawings, in which similar numerals of reference designate like parts throughout the several views.

Figure 1 is a plan view of a disk plow, showing my invention of a trailing furrow-wheel or caster applied thereto. Fig. 2 is an elevational view of the bearing and the pivotal sleeve of the standard of the rear furrow-wheel or caster-wheel, taken through the line A B. (See Figs. 7, 8, and 9.) Fig. 3 is a side elevational view of the same. Fig. 4 is a detail perspective view of the sleeve. Fig. 5 is a sectional view of the sleeve-bearing, taken through the line C D (see Figs. 7, 8, and 9) and showing the manner of applying the sleeve to said bearing to enter the latter. Fig. 6 is a similar enlarged detail view showing said sleeve applied thereto and turned into position to be locked or secured in said bearing. Fig. 7 is an inverted plan view of the same looking in the direction of the arrow *a*. (See Fig. 6.) Fig. 8 is a plan view of the rear end of the disk-plow frame, showing the caster in

its normal position, or the position it assumes when the plow is in operation; and Fig. 9 is a similar view showing the plow-frame after having been pivoted or swung on the said caster its full range, at which time when it is required to turn the frame a still further amount said frame will turn the caster-wheel around with it, or said frame and caster will as an entirety pivot on the peripheral bottom edge or tread of said caster-wheel.

The main plow-frame may be constructed of one integral piece, or it may be composed of several sections, as 1, 2, and 3, which latter construction is preferable, and said sections are adjustably and removably secured together, and each of which frame-sections is arranged to carry a single plow-disk, as the plow-disks 4, 5, and 6, carried by the sections 1, 2, and 3. The forward or leading furrow-wheel 7 is preferably connected to the draft-beam 8 by an adjustable connecting-rod 9, so that the said furrow-wheel 7 will turn in unison with the draft-beam 8 when the latter is deflected. The rear furrow-wheel or caster-wheel 10 is pivoted on the journal end of the downwardly-inclined bend 11 of the standard 12. The bottom end portion of the standard 12 has a bent or cranked rearward portion 13, situated between the bottom end portion of the standard 12 and the downwardly-inclined portion 11 thereof, and the said standard is so cranked for the purpose of causing the said caster or trailing furrow-wheel to always tend to move into its natural or normal position, which it readily will do, since the journal portion of said furrow-wheel is to the rear of the pivotal center or vertical axis of the standard 12. The standard 12 is adapted to fit and to slide longitudinally in its standard-sleeves 13. The standard-sleeve 13 is adapted to fit and to turn in its bearing 14, formed integral on the rear portion of the frame or section 3. The bearing 14 is provided with the vertically-extending slot 15, and the object and purpose of which I will hereinafter proceed to describe.

The standard-sleeve 13 is provided with the integral collar 16 at its top end, and on the bottom peripheral edge of said sleeve is formed

the retaining-lug 17. When it is required to insert or place said sleeve 13 in its bearing 14, the former is applied to said bearing 14 so that the lug 17 will fall directly over the slot 5 15, and the lug being a loose fit in said slot 15 will permit the sleeve 13 to slide into position in its bearing 14, and when the said sleeve has been inserted into said bearing the same is turned until its retaining-lug 17 is in position shown in Figs. 6 and 7—that is, diametrically opposite the lug-slot 15—by means of which lug said sleeve is retained in its bearing. A segmental portion of the collar 16 is cut away to form a recess 18. A stop-key 19 15 is adapted to fit in the keyway 20, formed in the plow-frame 3 and secured therein by the key-securing bolt 21, and the said key is adapted to project into the recess 18 to form a stop for limiting the extent of the pivotal 20 swing of said sleeve 13. The standard 12, as previously stated, is adapted to slide longitudinally in the bore of said sleeve 13 and to turn therewith. The top portion 22 of said standard 12 is rounded to receive the top and 25 bottom caps or washers 23, between which is situated the standard-block 24, which latter is bored to receive said reduced rounded portion 22 and to permit the said reduced rounded portion to turn or pivot in said standard-block 24. A foot 25 is formed integral on the 30 standard-block 24, and secured to the same is the latch-lever segment 26. The latch-lever 27 is pivoted on the fulcrum-pin 28, secured on the said foot 25 of said standard-block 24, 35 and said latch-lever is provided with a suitable latch which is adapted to engage any of the notches 29 to lock the said lever 27 in any required position. To the free end of the shorter arm 30 of said latch-lever 27 is pivotally 40 connected the top end of the fulcrum connecting-rod 31, and the bottom end of said fulcrum connecting-rod is pivoted to the frame 3, and thus when the latch-lever 27 is moved downwardly the rear end portion of the 45 frame 3 is elevated on the standard 12, and when said lever is moved in the opposite direction of said frame it is consequently dropped or moved downwardly.

The specific construction of the front wheel 50 and draft connection, the disk-beam connections, and the broad construction of the gap or stop collars form the subject-matter of other applications, the serial numbers of which are 164,573, 164,574, 164,576, and 55 164,577.

Having thus fully described this my invention, what I claim as new and useful, and de-

sire to cover by Letters Patent in the United States therefor, is—

1. In a wheel-plow, the combination with 60 a plow-frame, and a wheel-carrying standard, of a vertically-disposed standard-receiving sleeve pivotally mounted in said frame, a collar integral on the top end of said sleeve, said collar mutilated to form a stop-gap, a stop- 65 key removably secured to said frame and situated thereon to engage the gap of said collar.

2. In a wheel-plow, the combination with a plow-frame, and a wheel-carrying standard, of a vertically-disposed sleeve-bearing on said 70 frame and provided with a longitudinally-extending groove, a standard-receiving sleeve, a collar integral on the top end of said sleeve, said collar mutilated to form a stop-gap, a stop-key removably secured to said frame 75 and situated thereon to engage the gap of said collar.

3. In a wheel-plow, the combination with a plow-frame, and a vertically-extending wheel-carrying standard, said standard of 80 quadrangular section, of a vertically-disposed sleeve-bearing on said frame and provided with a longitudinally-extending groove, a standard-receiving sleeve wherein said standard is adapted to slide and with which it turns, 85 means for limiting the rotation of said sleeve and for retaining the same in position in its bearing, a bearing-head pivotally mounted on the end of said standard, a latch-lever fulcrumed on said head, a notched quadrant, and 90 a rod connecting said frame and said latch-lever.

4. In a wheel-plow, the combination with a standard having a rearwardly-extending cranked portion, a downwardly outwardly 95 inclined journal portion on the end of said rearwardly-inclined cranked portion and a furrow-wheel in the end inclined journal portion of said standard, of a sleeve having a longitudinal bore adapted to receive said stand- 100 ard and wherein said standard is adapted to slide longitudinally, and wherewith it is adapted to turn, a retaining-collar provided with a peripheral gap on the top end of said sleeve and a retaining-lug on the bottom edge of 105 said sleeve, and a stop removably secured to said frame and projecting into said gap.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHAPIN WAGNER.

Witnesses:

THOMPSON R. BELL,
NINA WINTERBERG.