

(No Model.)

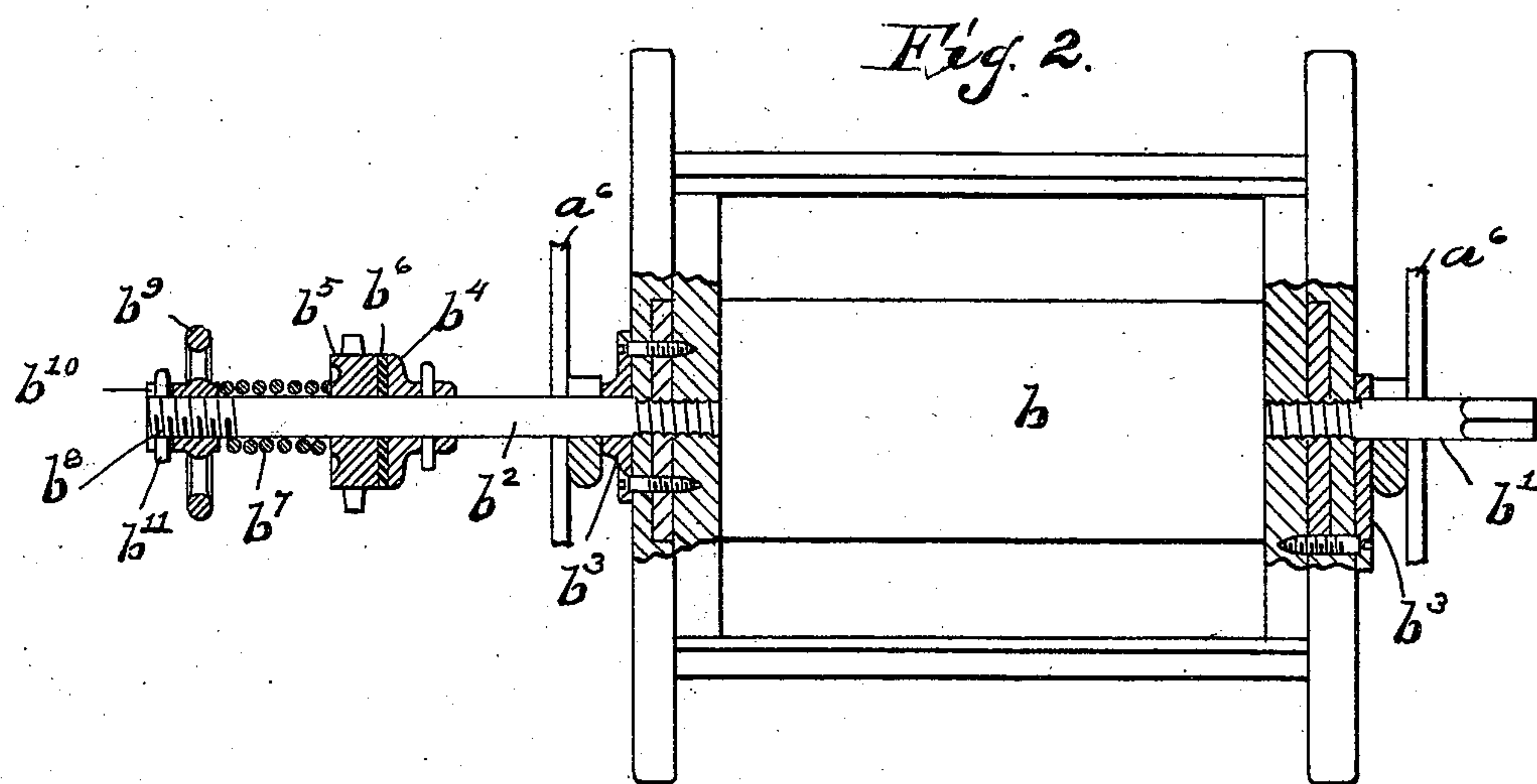
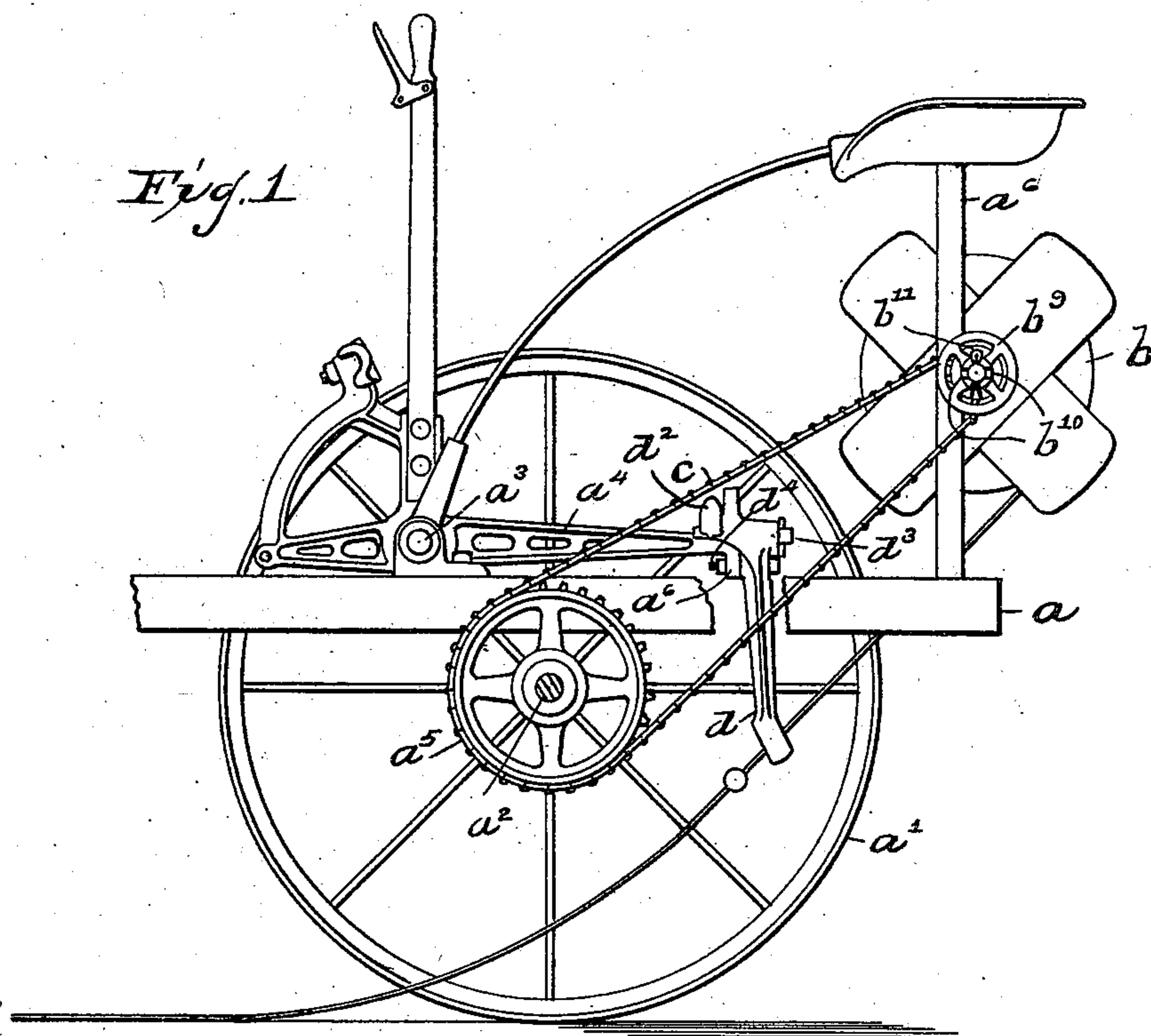
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G. C. JANNEY.

CHECK WIRE REEL FOR CORN PLANTERS.

No. 556,268.

Patented Mar. 10, 1896.



WITNESSES:

G. M. Gridley
Chas. J. Welch

INVENTOR

George C. Jamney

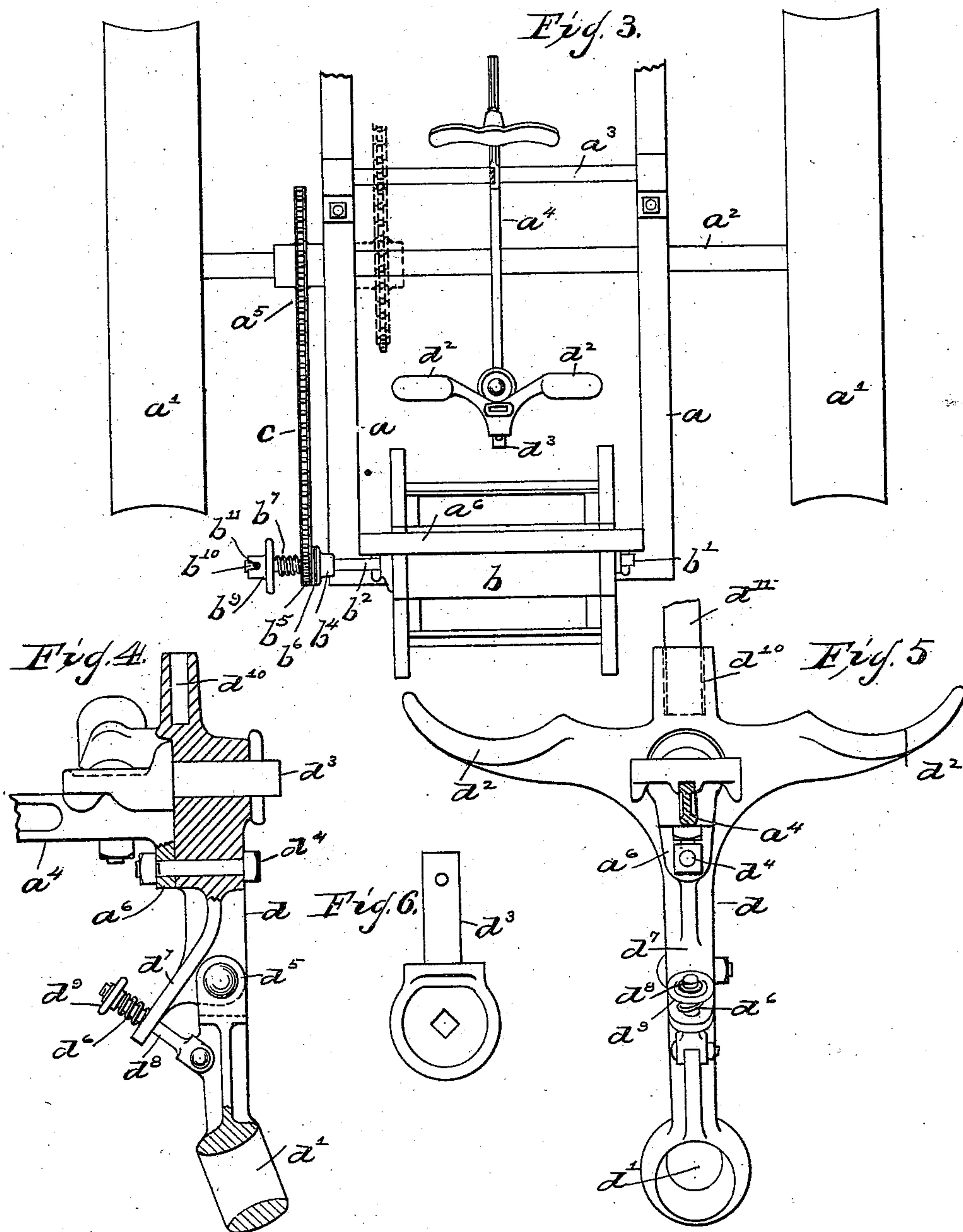
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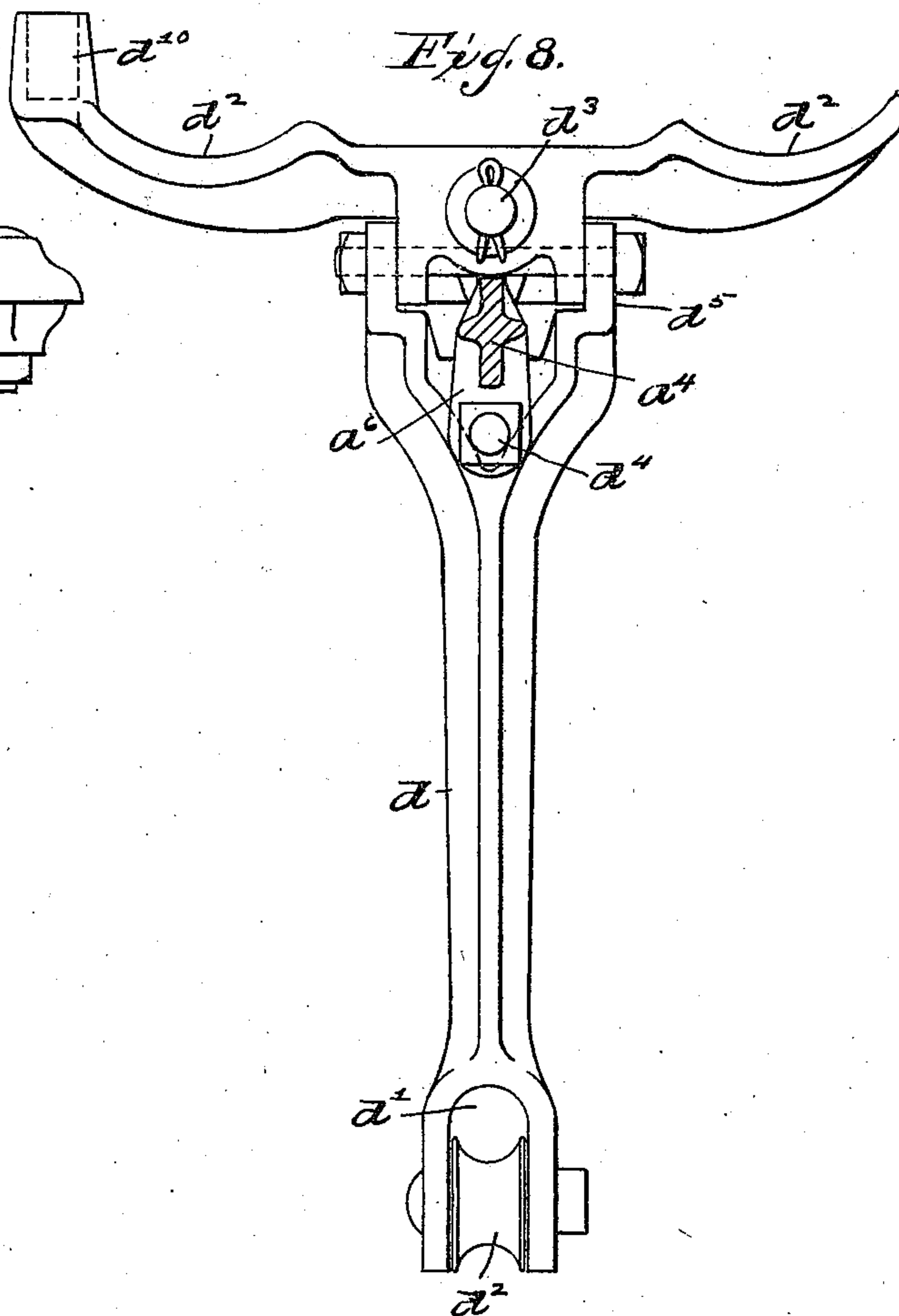
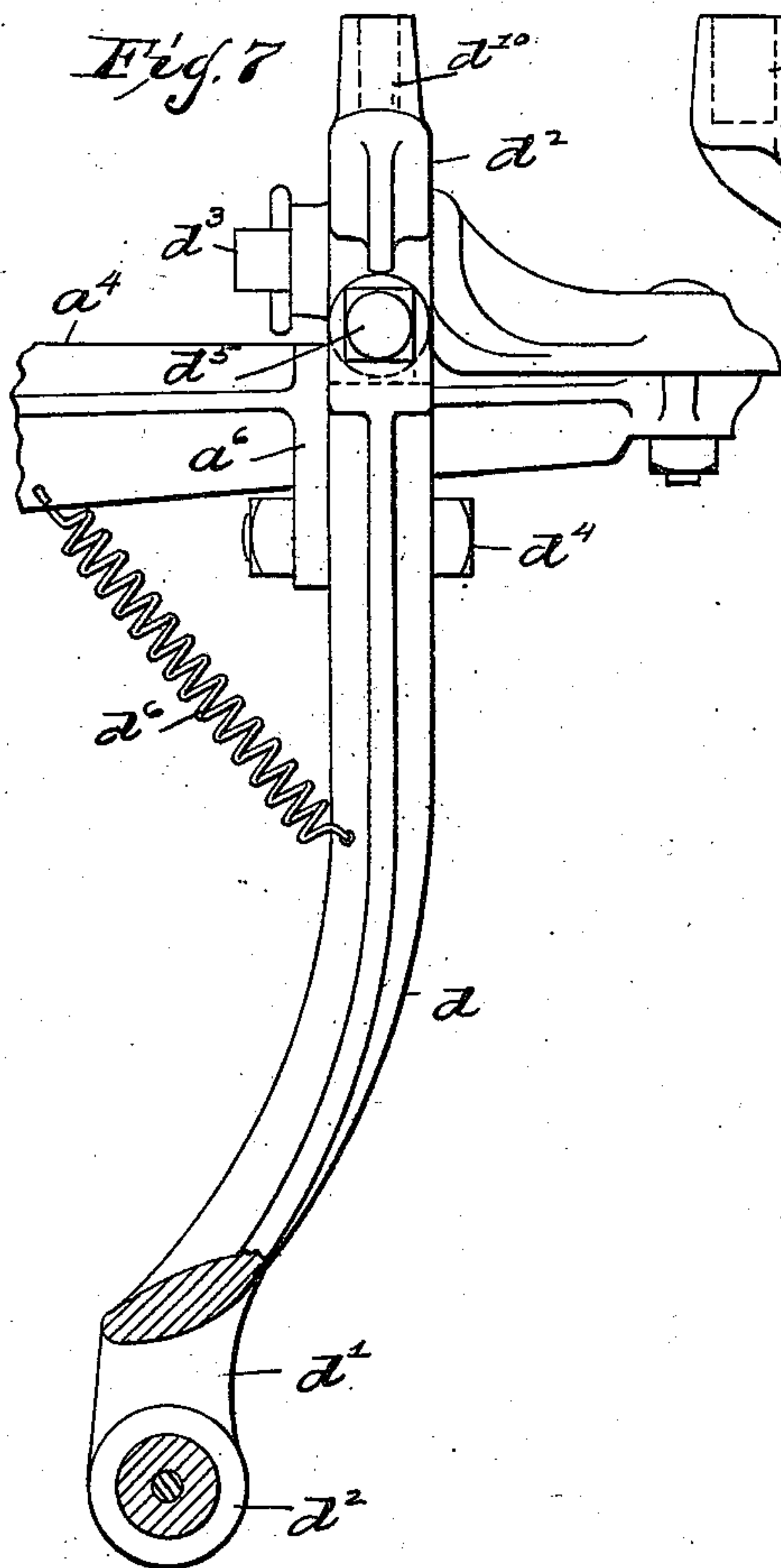
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UNITED STATES PATENT OFFICE.

GEORGE CAMPBELL JANNEY, OF MUNCIE, INDIANA.

CHECK-WIRE REEL FOR CORN-PLANTERS.

SPECIFICATION forming part of Letters Patent No. 556,268, dated March 10, 1896.

Application filed April 27, 1895. Serial No. 547,312. (No model.)

To all whom it may concern:

Be it known that I, GEORGE CAMPBELL JANNEY, a citizen of the United States, residing at Muncie, in the county of Delaware and State of Indiana, have invented certain new and useful Improvements in Check-Wire Reels for Corn-Planters, of which the following is a specification.

My invention relates to improvements in devices for reeling up check-wire on corn-planters as the machine is drawn forward; and my invention consists in the constructions and combinations of parts hereinafter described and set forth in the claims.

In the accompanying drawings, Figure 1 is a side elevation of the rear portion of a corn-planter to which my invention has been applied. Fig. 2 is a sectional view of the reel. Fig. 3 is a plan view of the devices shown in Fig. 1. Figs. 4 and 5 are respectively a partial sectional and a rear elevation of the actuating devices for the check-wire. Fig. 6 is a detail of the same. Figs. 7 and 8 are detail views showing modifications.

Like parts are represented by similar letters of reference in the several views.

In the said drawings, a a represent the frame of the rear part of the planter, generally called the "wheel-frame." a' a' are the wheels, and a^2 the axle supporting the same. Extending across the frame a a is a shaft a^3 , on which is the usual treadle or lever a^4 , which forms a part of the raising and lowering devices now in general use on corn-planters. The axle a^2 is supplied with a sprocket-wheel a^5 , such as is now quite generally employed for driving the feeding devices of the planter.

At the rear of the axle a^2 , and supported in suitable standards a^6 from the frame a a , is a reel b , upon which the check-row wire is wound, the constructions thus far described being common in planters now in use. This reel b , I supply with trunnions b' b^2 , which are adapted to be supported in the usual bearings in the standards a^6 . These trunnions are each screw-threaded on their inner ends and adapted to screw into the wooded portions of the ordinary wire-reel b , suitable metallic collars or washers b^3 being preferably secured to the ends of said reel to form a substantial bearing for said trunnions, the trunnions being thus removably secured in

said reel. On one of the trunnions b^2 I provide an adjustable friction device, which consists essentially of a collar b^4 , secured to the said trunnion, and a sprocket-wheel b^5 loose on the trunnion. The opposing faces of this sprocket-wheel and collar are preferably separated by a washer b^6 , of leather or other suitable material, and a spring b^7 on the trunnion b^2 is adapted to press the sprocket-wheel against the washer and collar, so as to form a frictional driving connection between the sprocket-wheel and said trunnion. The end of the trunnion b^2 is also preferably screw-threaded, as shown at b^8 , and a screw-threaded hand-wheel b^9 placed thereon, which presses against the spring b^7 and furnishes the means for adjusting the tension of said spring by turning said hand-wheel on the screw-threaded portion. This hand-wheel or adjusting device is preferably provided at one end with notches b^{10} , into which may be fitted a pin b^{11} , extended through the shaft or trunnion b^2 to hold said hand-wheel in different positions of adjustment.

A driving-chain c connects the sprocket-wheel b^5 with the driving-sprocket a^5 , the distance between the respective sprockets being preferably such that the same driving-chain c which is used for driving the reel may also be employed for driving the feeding devices from the sprocket-wheel a^5 in the usual manner.

To provide for picking up the wire and distributing it evenly on the reel, I employ a vibrating arm d , having at the bottom a suitable opening d' with a flaring mouth, or, if desired, provided with a roller d^2 , as shown in Figs. 7 and 8. This vibrating arm d is preferably supported on the lever or treadle a^4 , which forms a part of the lifting device, as described, and is supported thereon in such manner that it is capable of a lateral vibration to cause the lower portion of said arm to vibrate in front of and below the reel, and thus carry the wire which passes through the lower end of said arm to different portions of said reel and distribute it evenly thereon. The vibrating arm d is provided at the top with laterally-projecting foot-supports d^2 , which may, if desired, be formed integral with said arm, thus making the arm substantially T-shaped. A trunnion d^3 , connected to the treadle or lever a^4 , is adapted to form a bearing for said

arm d , on which it oscillates. This trunnion d^3 may be secured to the lever or treadle a^4 in any suitable manner. Means are preferably provided, however, by which the arm d and lever a^4 may be connected together to prevent the oscillation of said arm—as, for instance, by constructing a projection a^6 on said lever adapted to receive a pin or bolt d^4 , which extends through said arm and through said projection. Means are preferably provided for allowing the arm to yield in the direction of the reel to prevent or lessen the shock of vibrations produced by the knots on the check-wire passing through the lower end of the arm. This I preferably accomplish by constructing the arm in two parts, the lower part being hinged, as shown at d^5 , in a plane at right angles to the hinge or trunnion d^3 , said lower portion being held in its normal position by a spring d^6 . In Figs. 4 and 5 I have shown the upper portion of the arm provided with a projection d^7 , through which passes a link d^8 pivoted to the lower part of the arm, said link having at the outer end an adjustable nut d^9 , the spring d^6 being placed between the projection d^7 and the nut d^9 , so that the lower portion of the arm is held yielding in its normal position. The upper part of the arm is also provided with a socket d^{10} , into which a hand-lever d^{11} may be inserted, if desired. This socket d^{10} may be placed immediately over the trunnion d^3 , as shown in Figs. 4 and 5, or at one end of one of the treadles d^2 , as shown in Figs. 7 and 8.

In Figs. 7 and 8 I have shown some modifications in the construction. The arm d , instead of being hinged below the treadle or lever a^4 , as shown in Figs. 4 and 5, is hinged above the treadle, the lower portion being bifurcated to straddle said treadle. The trunnion d^3 in this case, instead of being connected to the arm or treadle a^4 , so as to project from the end thereof, extends forward, with the bifurcated or open portion of the arm embracing said lever or treadle. In this case the projection d^7 on the upper portion of the arm is dispensed with, and a spring d^6 is connected directly from the lower part of the arm d to the treadle a^4 , or to any other suitable portion of the machine or frame.

In the normal position for operation the driving-chain c is placed on the sprocket-wheels $a^5 b^5$. The lever d is loose on its supporting-trunnion so as to vibrate from side to side. The operator, with his foot on the treadles d^2 , vibrates the arm alternately as the machine is drawn forward, the forward movement of the machine causing the reel to revolve through the driving connections described and the friction devices on the reel-trunnion. By adjusting the tension of the spring b^7 any desired amount of tension may be placed on the wire as it is wound on the reel, the slipping of the parts of the friction device preventing any possible breakage of the wire. By vibrating the arm d the operator causes the wire to be wound uniformly

on the reel, operating the same through the medium of the foot-treadles for this purpose. If desired, however, the hand-lever d^{11} may be placed in the socket d^{10} , so that the arm may be operated by hand instead of by foot.

When not in use for operating the reel, the sprocket-wheel a^5 and chain c may be used for driving the feeding devices if they are in the proper position. If the ordinary feeding driving-sprockets should be within the frame, as shown in Fig. 3, then an additional sprocket may be provided on the main axle for driving the reel. When the reeling device is not in use, the foot-treadles d^2 , forming the upper part of the vibrating lever, may be secured rigidly to the lifting-lever a^4 by the bolt or pin d^4 , so as to form part of said lever and take the place of the usual foot-treadles employed for operating the lifting devices. In this case the lower hinged portion of the arm may be dispensed with.

It will be seen from the above description that I provide a very simple and effective device for reeling up check-wire. The constructions are such that they may be applied to machines already in use without change in the construction of said machines, the parts of the reeling device being modified to suit the special constructions of the machine to which it is to be applied.

Having thus described my invention, I claim—

1. The combination with a check-wire reel and its driving devices, of a vibrating arm having foot-treadles as described, said arm being hinged in a plane at right angles to the line of vibration, and a yielding connection for the hinged portion of said arm, substantially as specified.

2. The combination with a reel and driving devices therefor, and a vibrating arm having laterally-projecting foot-treadles, said arm being connected to the lifting-lever of the planter, and means for connecting said vibrating arm to said lever whereby the vibrations of said arm are prevented and the foot-treadles connected to said lever so as to operate the same, substantially as specified.

3. The combination with a check-row reel and its driving devices, and a vibrating arm journaled on a suitable trunnion secured to the lifting arm or lever of a corn-planter, said vibrating arm being provided at its lower end with a roller over which the wire is adapted to pass, substantially as specified.

4. The combination with a check-wire reel and its driving devices, of a vibrating lever arranged in front of and below said reel, said vibrating lever being journaled on a trunnion forming a part of the lifting devices of said corn-planter, projecting foot-treadles on said arm, and means for connecting said arm to said lifting devices whereby the foot-treadles may be employed for operating the lifting devices or vibrating said arm, substantially as specified.

5. The combination with a reel and its

driving devices, of a vibrating arm arranged in front of and below said reel, said vibrating arm being formed of two parts hinged together, one of said parts having a projecting portion, and a spring connection between the hinged portion and the projecting portion, substantially as specified.

6. The combination with a reel, of a pivoted vibrating arm, said arm being formed in two parts hinged together as described,

the lower part being provided with a guide for the wire, and a spring connected to said lower hinged part, substantially as specified.

In testimony whereof I have hereunto set my hand this 22d day of April, A. D. 1895.

GEORGE CAMPBELL JANNEY.

Witnesses:

P. R. JANNEY,

ADDIE HATHAWAY.