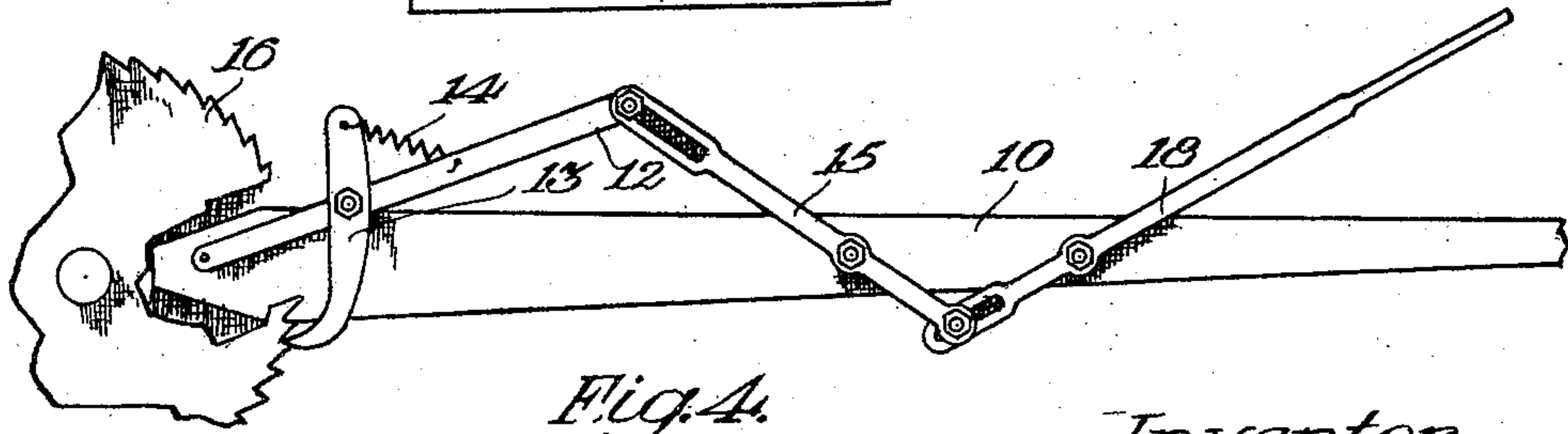
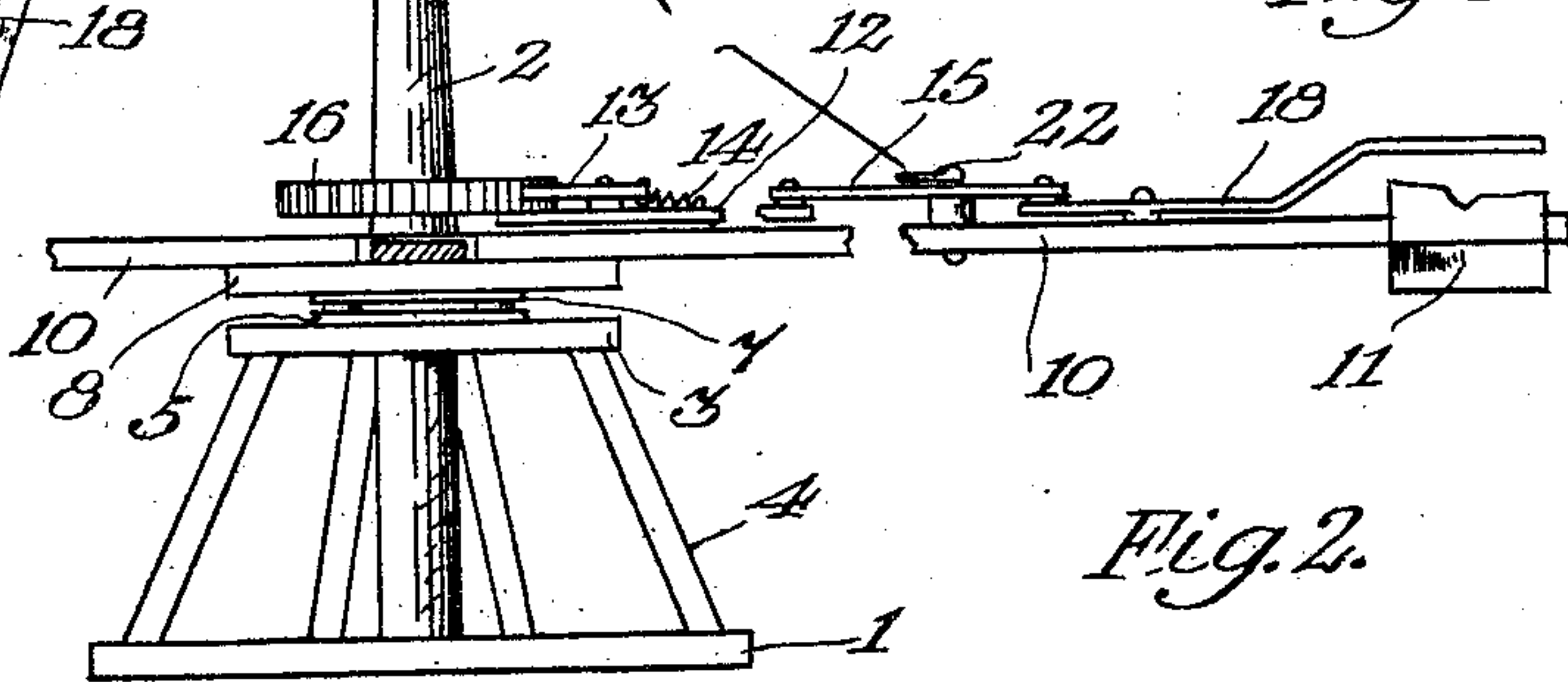
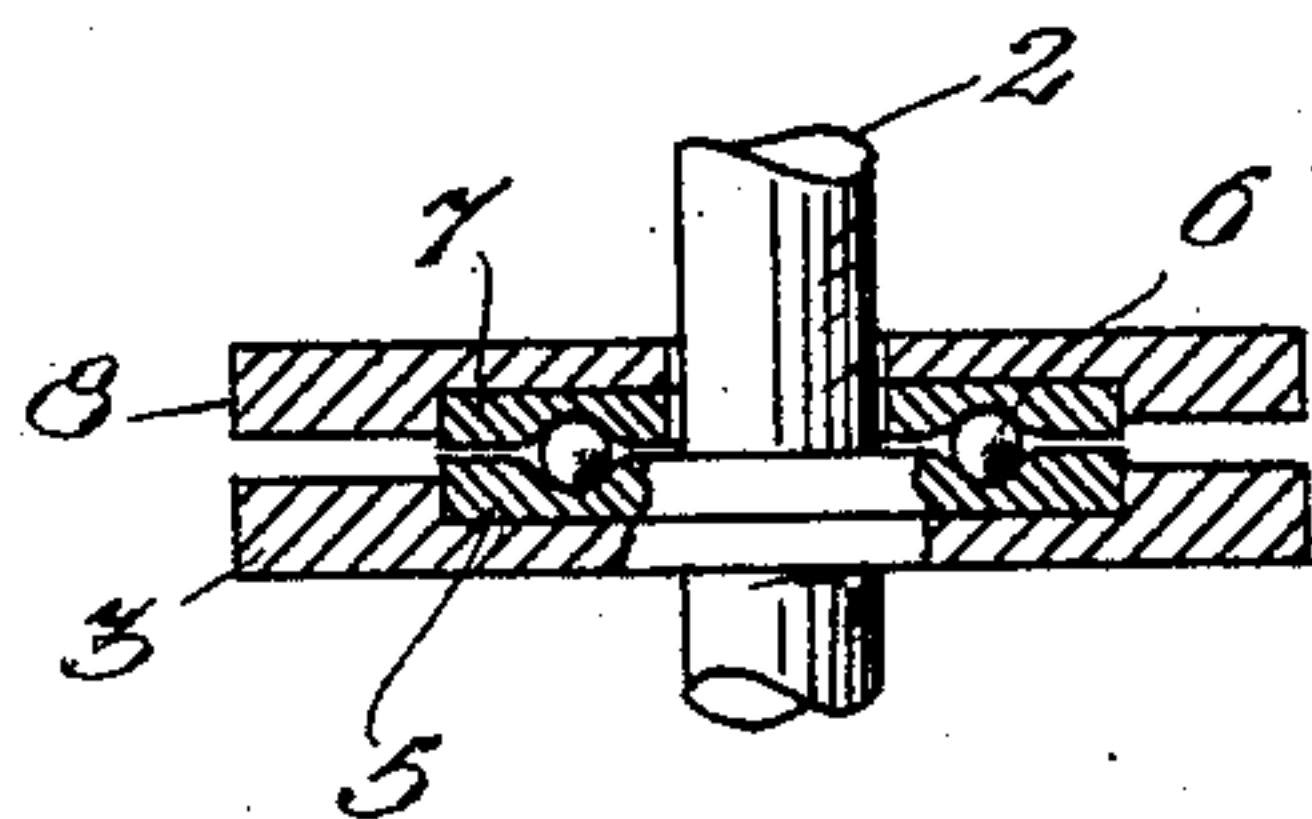
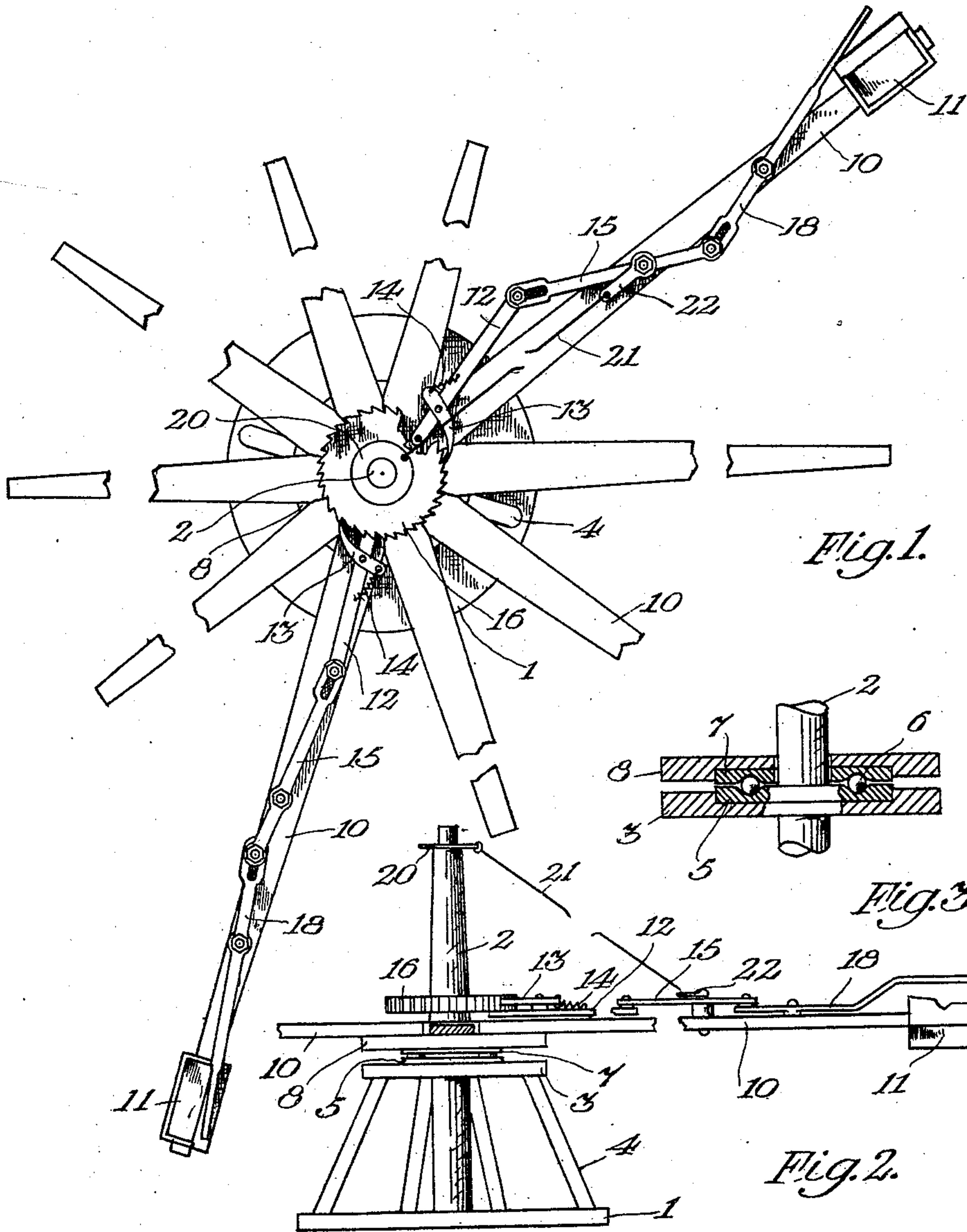


A. A. WALRATH.
MERRY-GO-ROUND.
APPLICATION FILED MAY 13, 1908.

929,523.

Patented July 27, 1909.



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UNITED STATES PATENT OFFICE.

ALTON A. WALRATH, OF FORT PLAIN, NEW YORK.

MERRY-GO-ROUND.

No. 929,523.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed May 13, 1908. Serial No. 432,567.

To all whom it may concern:

Be it known that I, ALTON A. WALRATH, a citizen of the United States, residing at Fort Plain, in the county of Montgomery and State of New York, have invented certain new and useful Improvements in Merry-Go-Rounds, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to an improved merry-go-round, and I declare the following is a full, clear, concise and exact description thereof, sufficient to enable one skilled in the art to make and use the same, reference being had to the accompanying drawings in which like reference characters refer to like parts throughout.

The invention is illustrated in one form in the accompanying drawings wherein is shown a fixed base construction, including a mast therewith, and a movable portion revolubly mounted on the fixed base and means therewith for imparting motion to such parts.

Particular features of the invention are found in the means for causing this motion, which, with the other parts of the device, form a simple, inexpensive and durable construction.

In the drawings Figure 1 is a top or plan view of the device, certain parts being cut out. Fig. 2 is a side view, certain of the projecting parts being cut out. Fig. 3 is a detail in cross-section, and Fig. 4 is a view of the actuating mechanism.

Referring to the figures in detail, 1 is a base and 2 a mast fixed upright, 3 being a plate supported on base 1 by bars 4. On plate 3 is a rack 5, shown in Fig. 3 as let into plate 3, adapted to receive the bearing-balls 6. A counterpart rack 7 is shown as likewise let into plate 8, which with rack 7 revolves about the mast 2, supporting the other revolving parts. Fixedly mounted on the plate 8, and at a suitable distance from the center, are the arms 10, of which ten are shown, each of which has a seat 11 at the outer end. Fixed to the mast 2 is ratchet-wheel 16 with teeth, as shown in Figs. 1 and 4. On the revolving structure, for instance, at the inner end of each arm 10 is pivoted a lever 12 which carries a pawl 13, held by spring 14 (extending from the pawl to lever 12) in contact with wheel 16. On the arm 10 is pivoted lever 15, one end of which connects with the outer end of lever 12 by a slotted connection. At 18 is another lever

pivoted on the arm 10 and having slotted connection at one end with the adjacent end of lever 15, the other end of lever 18 extending into a handle for the rider to grasp.

In Figs. 1 and 2 the levers are shown in somewhat different positions, indicating the method of operation of the device. The rider swings the handle of lever 18 to and fro, reciprocating the other levers, which are proportioned to give ample leverage, the pawl engaging the wheel and providing a fulcrum on which to revolve the arms, the fulcrum changing with each reciprocation to a new position on the ratchet when the operation is repeated. It is understood that there is such a system of levers on each arm, whence it will be seen that the power applied at different points rapidly rotates the arms, the natural inequality of movement of the operators supplying a practically constant force to rotate the machine.

At the top of the mast is a loosely mounted plate or ring 20 from which guys 21 extend to clips 22 mounted on the arms for supporting the same.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A device of the character described having a fixed base, revolving members mounted thereon, ball-bearing mounting of the latter on the former, the revolving members comprising arms, lever members mounted thereon, a ratchet-wheel mounted on the base and a pawl mounted at one end of one of the lever members and connected with the wheel, the end of the pawl carrying lever members adjacent the ratchet wheel being pivotally mounted on the arm eccentric to the center of the ratchet wheel, substantially as described.

2. In a device of the character described, the combination with rotating members mounted on a fixed structure, of means for rotating the former relatively to the latter, the same comprising a series of bars connected to form a compound lever, the bars having a sliding connection at their adjacent ends, the outer end of the outer bar of said lever consisting of a handle by the swinging of which to operate the lever, and the inner end being pivotally mounted on the rotating members eccentric to the center of rotation thereof, substantially as described.

3. In a device of the character described, a fixed mast, a plate revolubly mounted

thereto, arms fixed at one end to the said plate and provided with a seat at the other end, a ratchet-wheel fixed to the mast above the arm, a pawl-carrying lever mounted at the inner end to swing on a point outside the center of the ratchet-wheel, a hand lever at the outer end and an intermediate lever pivoted to the arm and to the other levers to rotate the arms by the reciprocation of the said levers, substantially as described.

4. In a device of the character described, the combination with a fixed structure and revolving members thereon, of a compound lever with means engaging the fixed structure whereby to revolve the revolving members, the said lever consisting of a plurality of parts with slotted connection therebetween and mounted at one end on the revolving structure at one side of the center whereby to exert the force of the leverage to turn the revolving members relative to the fixed structure, substantially as described.

5. In a device of the character described, a fixed mast, a plate revolubly mounted thereon, arms fixed at one end to the said plate and provided with a seat at the other end, a ratchet-wheel fixed to the mast, a pawl-carrying lever near the inner end of the arm at a point eccentric to the center of the revoluble plate, a hand-lever at the outer end and an intermediate lever pivoted to the arm and to the other levers whereby upon reciprocation of the said levers power is applied to the arms at a point adjacent the center of their revolution, substantially as described.

6. In a device of the character described, a fixed central structure with a ratchet-wheel thereon, a revoluble structure mounted on the fixed structure and comprising seat-carrying arms, a series of lever members pivotally mounted on the arms, the outer end of the series being a handle to operate the levers and the inner end being mounted on the arm eccentric to the axis of the mast, a

pawl mounted on the inner member of the lever series to engage the ratchet-wheel whereby to provide a fulcrum for the inner member of the series whereby the leverage of the inner member is applied to the revolving structure eccentric of the center thereof to rotate the same at a speed greater than the travel of the pawl on the ratchet-wheel, substantially as described.

7. A device of the character described comprising rotatable arms, a series of levers mounted thereon extending substantially the length of each arm, the inner member of said levers being pivoted on the arm adjacent to the axis of the rotation of the arm but eccentric thereto, and means between said pivotal bearing of said lever member and the outer end of said lever member whereby to hold the lever against back movement and whereby power, when applied to the series of levers at the outer end, is transmitted to and applied at a point on the arm adjacent to but eccentric of its pivotal mounting whereby to swing the outer end of the arm by action of the levers carried thereby, substantially as described.

8. A device of the character described comprising rotatable arms, a series of levers mounted on each of said arms, one end of the series being pivoted on the arm eccentric to the axis on which the arms rotate, and means between said pivotal point and the outer end of the arm to provide a movable fulcrum for the said lever member whereby power applied to the outer end of the lever members is applied to the arm adjacent to but eccentric of the pivotal mounting of the arm whereby to swing the outer end of the arm, substantially as described.

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

ALTON A. WALRATH.

Witnesses:

E. T. DE GIORGI,
HENRY M. LOVE.