

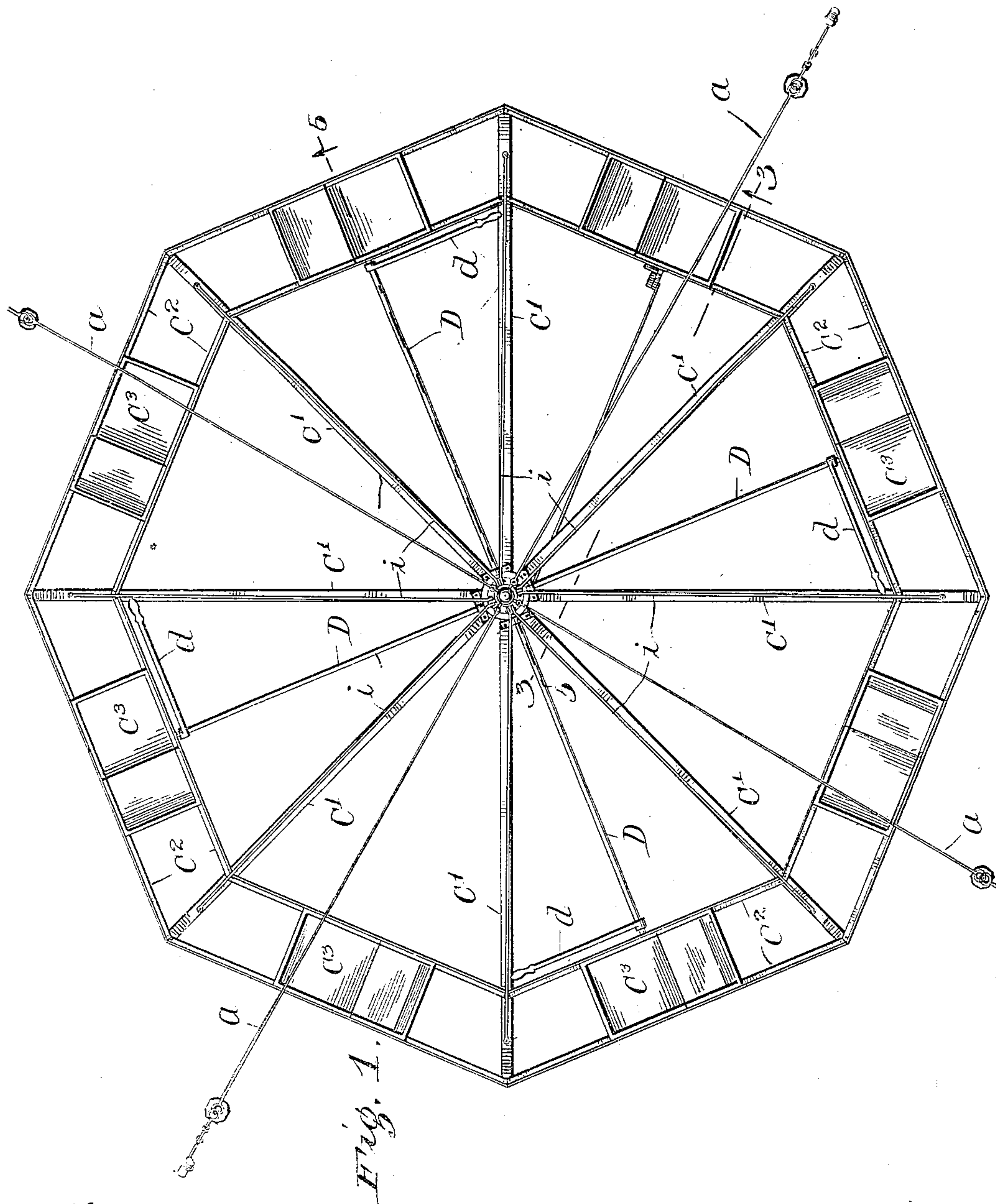
No. 816,689.

PATENTED APR. 3, 1906.

C. M. STEVENSON.
MERRY-GO-ROUND.

APPLICATION FILED JULY 7, 1904.

3 SHEETS—SHEET 1.



Witnesses:
Chas. O. Shurway,
Russell Miles.

Inventor:
Charles M. Stevenson,
by
H. P. Butler,
Atty.

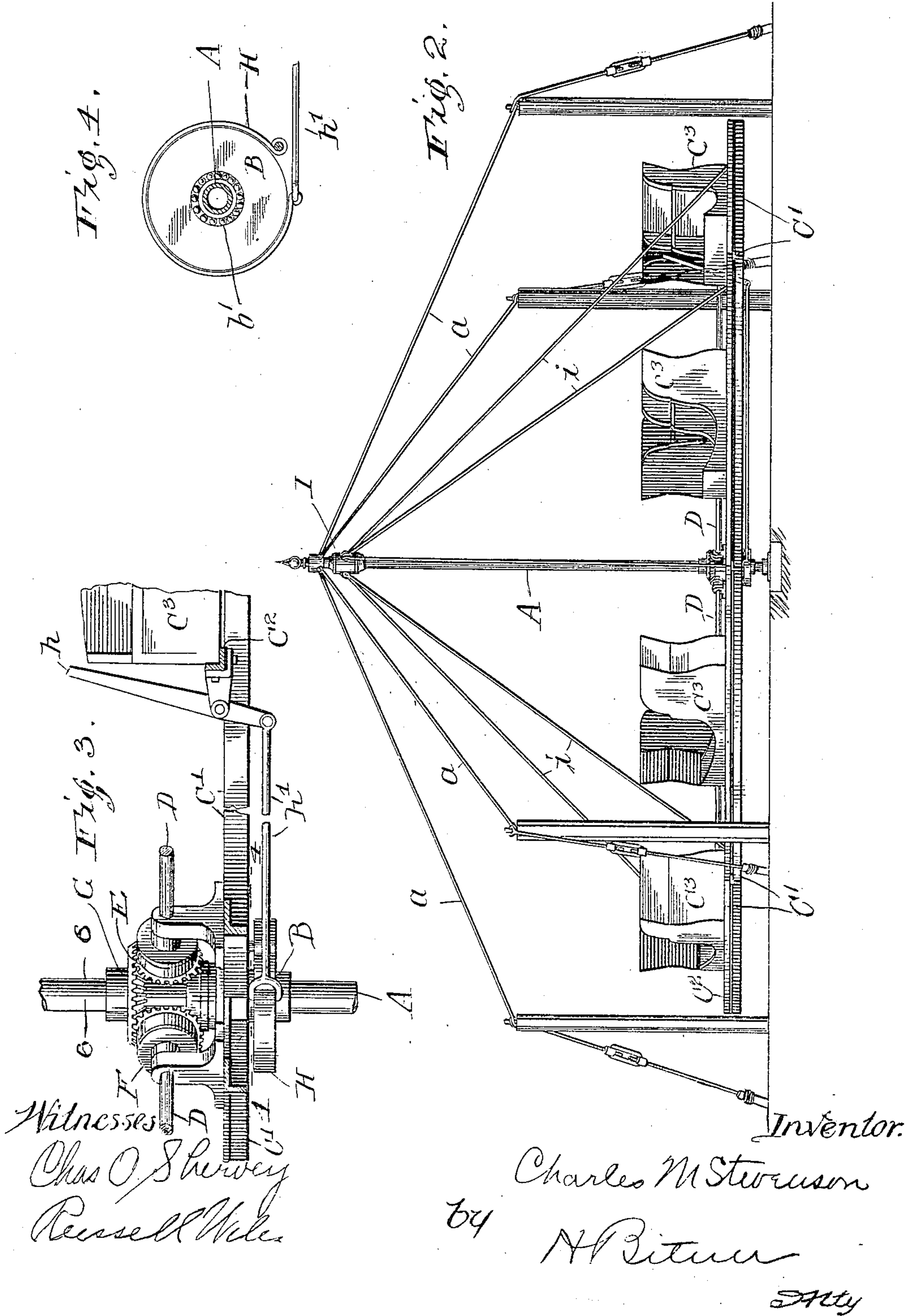
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3 SHEETS—SHEET 2.



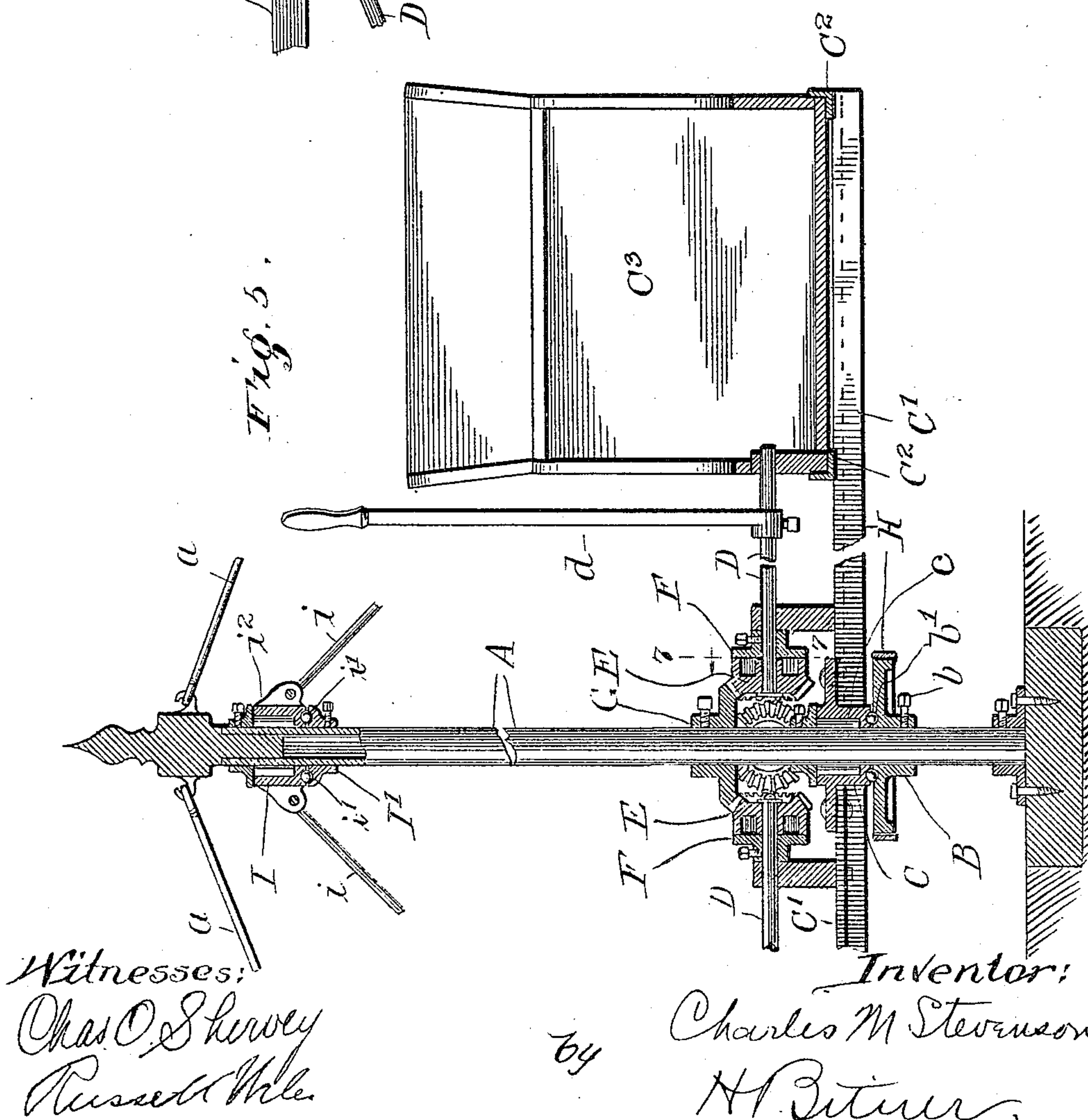
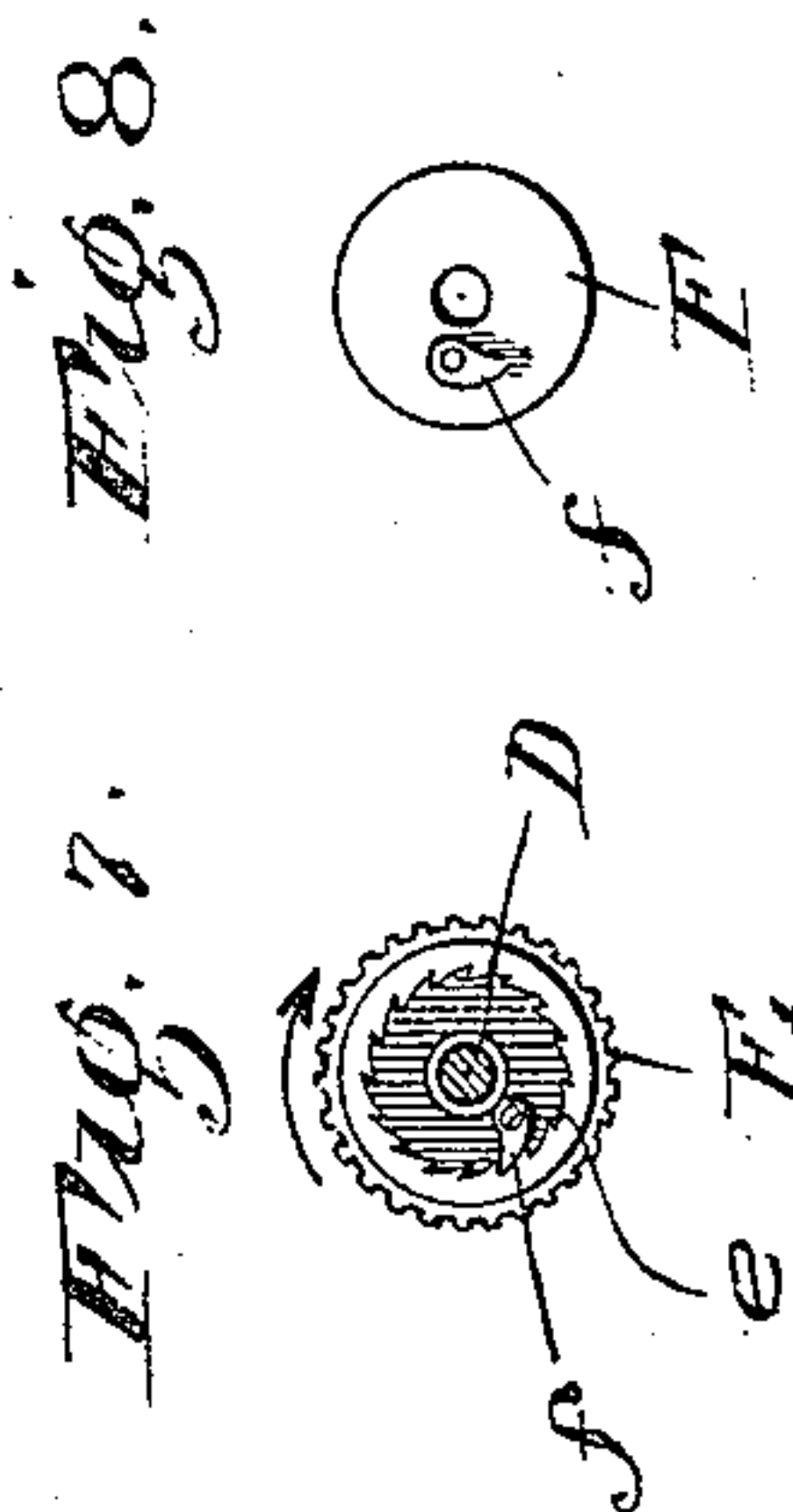
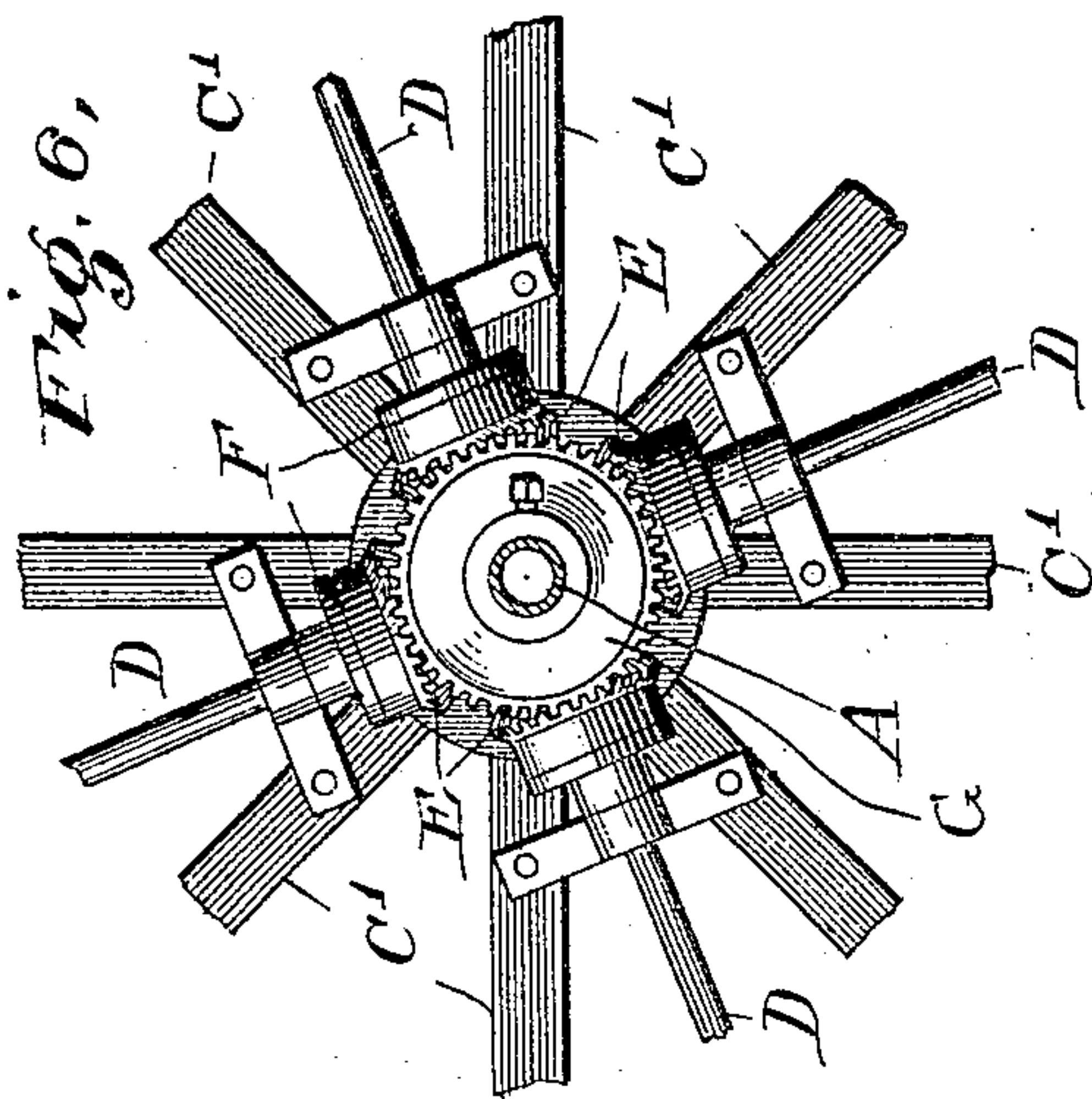
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3 SHEETS—SHEET 3.



Witnesses:
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Russell W. Hale

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UNITED STATES PATENT OFFICE.

CHARLES M. STEVENSON, OF HARVARD, ILLINOIS.

MERRY-GO-ROUND.

No. 816,689.

Specification of Letters Patent.

Patented April 3, 1906.

Application filed July 7, 1904. Serial No. 215,585.

To all whom it may concern:

Be it known that I, CHARLES M. STEVENSON, a citizen of the United States of America, residing at Harvard, in the county of Mc-Henry and State of Illinois, have invented certain new and useful Improvements in Merry-Go-Rounds, of which the following is a specification.

My invention relates to certain new and useful improvements in merry-go-rounds; and its object is to produce a device of this class which shall have certain advantages which will appear more fully and at large in the course of this specification.

To this end my invention consists in certain novel features which are clearly illustrated in the accompanying drawings and described herein.

In the aforesaid drawings, Figure 1 is a plan view of my improved device. Fig. 2 is a side elevation thereof. Fig. 3 is a section in the line 3 3 of Fig. 1. Fig. 4 is a horizontal section in the line 4 4 of Fig. 3. Fig. 5 is a section in the line 5 5 of Fig. 1 looking in the direction of the arrow. Fig. 6 is a horizontal section in the line 6 6 of Fig. 3 looking downward. Fig. 7 is a section in the line 7 7 of Fig. 5 looking in the direction of the arrow and showing the pawl in a position occupied when the operating-lever has been rotated about one hundred and thirty-five degrees from its position of rest, and Fig. 8 is a face view of one of the driving-pawls in the position it occupies when the operating-lever is in its position of rest.

Referring to the drawings, A is a center pole supported on a suitable foundation and held in a vertical position by guy-rods *a*. Near the lower end of this center pole is a vertically-movable collar B, (see Fig. 5,) adapted to be clamped in any vertical position by a set-screw *b*. This collar is provided at its upper surface with a ball-race in which runs a set of balls *b'*, which support a sleeve C, rotatable about the center pole. This sleeve is countersunk, as illustrated in Fig. 5, and antifriction-rollers *c* occupy the countersunk space to give the sleeve C the greatest freedom of rotation about the center pole A. The sleeve C forms a central support for a plurality of radial bars *C'*, which together with the sleeve form a spider. This spider in the form herein illustrated is octagonal, and the ends of the bars are connected by parallel bars *C²*, arranged in pairs. The structure just described forms a platform

which supports eight seats *C³*; but it will be obvious that by increasing or decreasing its diameter and the number of radial bars the number of seats can be varied as desired.

In the machine herein illustrated radial shafts D extend from the alternate seats toward the center of the machine, the same being journaled, as illustrated in Fig. 5, at one end to the framework of the seats and at the other end in journal-boxes supported by the radial bars *C'*. The number of these shafts can evidently be varied as desired. The outer end of each of these shafts bears a handlever *d* in position to be grasped by the hand of the person occupying the corresponding seat, the said lever being adapted to rock the shaft D. On the inner end of each shaft is loosely mounted a beveled pinion E, the same being constructed with a hollow interior, Fig. 7, the wall of which is provided with ratchet-teeth *e*. Immediately outside each of these beveled pinions is a plate F, having a pawl *f* pivoted to it, non-rotatable on the shaft and in engagement with the ratchet-teeth *e* on the adjacent pinion. Upon the center pole A is a beveled pinion G, which engages with all the pinions E.

When the merry-go-round is at rest, the levers *d* are laid down on the frame, as seen in Fig. 1. The pivots of the pawls upon their supporting-plates are so located that when the levers are laid down upon the frame the pawls by their own gravity will swing away from the ratchet-teeth and hang down and out of engagement therewith, (see Fig. 8,) thereby permitting the merry-go-round to be rotated in a reverse direction to the proper one without danger of injury to the gearing or other parts connected therewith. As soon as the lever *d* is partly raised the pawl falls into engagement with the ratchet-teeth, and the further movement of the lever rotates the pinion connected with the pawl, thereby moving the platform of the merry-go-round. The engagement and disengagement of the pawls from the ratchets is thus accomplished without the aid of additional contrivances, which might lead to confusion in the operation of the device. This arrangement for throwing the device in and out of gear is very simple, but extremely important in a device of this class, as it avoids the danger of injury to the gearing.

It will be evident that as the levers adjacent to the seats on the spider are reciprocated they will rotate the pinions E when

drawn backward and will have no such effect when pushed forward. This rotation of the pinions in one direction will of course by engagement with the pinion G cause the spider
5 to rotate about the center pole. The spider is provided at its center with a brake H, which engages with the collar B and is adapted to be tightened by a lever *h*, mounted adjacent to one of the seats and connected with
10 the ends of the band-brake by a link *h'*.

The spider is maintained in a horizontal position by guy-rods *i*, running from a sleeve I near the top of the center pole. This sleeve I is, like the sleeve C, mounted upon balls *i'*,
15 resting on a collar I', and is countersunk to receive roller-bearings *i*².

My improved device is advantageous for many reasons, and particularly for its cheapness and simplicity of construction, which
20 adapt it for use where the ordinary merry-go-round with a complicated and expensive power apparatus is undesirable.

It will be noticed that all the bearings are made adjustable in height, so that no particular leveling of the ground is necessary before setting up the device, it being possible to
25 raise the entire spider, together with its bearings, until the structure clears the ground.

I realize that considerable variation is possible in the details of this construction without departing from the spirit of the invention, and I therefore do not intend to limit myself to the specific form herein shown and described.
30

I claim as new and desire to secure by Letters Patent—

1. In a device of the class described, the combination with a center pole, a platform rotatable thereon and seats on the platform,
40 of a stationary pinion on the center pole, a radial rock-shaft journaled on the platform, a pinion loose on the end of said shaft in engagement with the stationary pinion, ratchet-teeth on the loose pinion, a hand-lever adjacent to one of the seats and having a limited
45 oscillatory movement, and a pawl carried by said shaft and adapted for engagement with

the ratchet-teeth on said loose pinion, but so arranged that when the hand-lever is at one of its limits of movement it will be automatically thrown out of engagement with the
50 ratchet-teeth.

2. In a device of the class described, the combination with a center pole, a platform rotatable thereon and seats on the platform,
55 of a stationary pinion on the center pole, a radial rock-shaft journaled on the platform, a pinion loose on the end of said shaft in engagement with the stationary pinion, said loose pinion being hollow and provided with
60 internal ratchet-teeth, a hand-lever adjacent to one of the seats and having a limited oscillatory movement, and a pawl carried by said shaft and adapted for engagement with the ratchet-teeth on said loose pinion, but so arranged that when the hand-lever is at one of its limits of movement it will be automatically thrown out of engagement with the
65 ratchet-teeth.

3. In a device of the class described, the combination with a center pole, a platform rotatable thereon and seats on the platform,
70 of a stationary pinion on the center pole, a radial rock-shaft journaled on the platform, a pinion loose on the end of said shaft in engagement with the stationary pinion, ratchet-teeth on the loose pinion, a plate fast upon the rock-shaft, a hand-lever adjacent to one of the seats and having a limited oscillatory movement, and a gravity-pawl pivoted upon
75 said plate and adapted for engagement with the ratchet-teeth upon the loose pinion, but arranged to be automatically thrown out of engagement therewith when the hand-lever is at one of its limits of movement.
80

In witness whereof I have signed the above application for Letters Patent, at Harvard, in the county of McHenry and State of Illinois, this 1st day of July, A. D. 1904.
85

CHARLES M. STEVENSON.

Witnesses:

GEO. I. WALKER,
EUGENE STEVENS.