

No. 736,305.

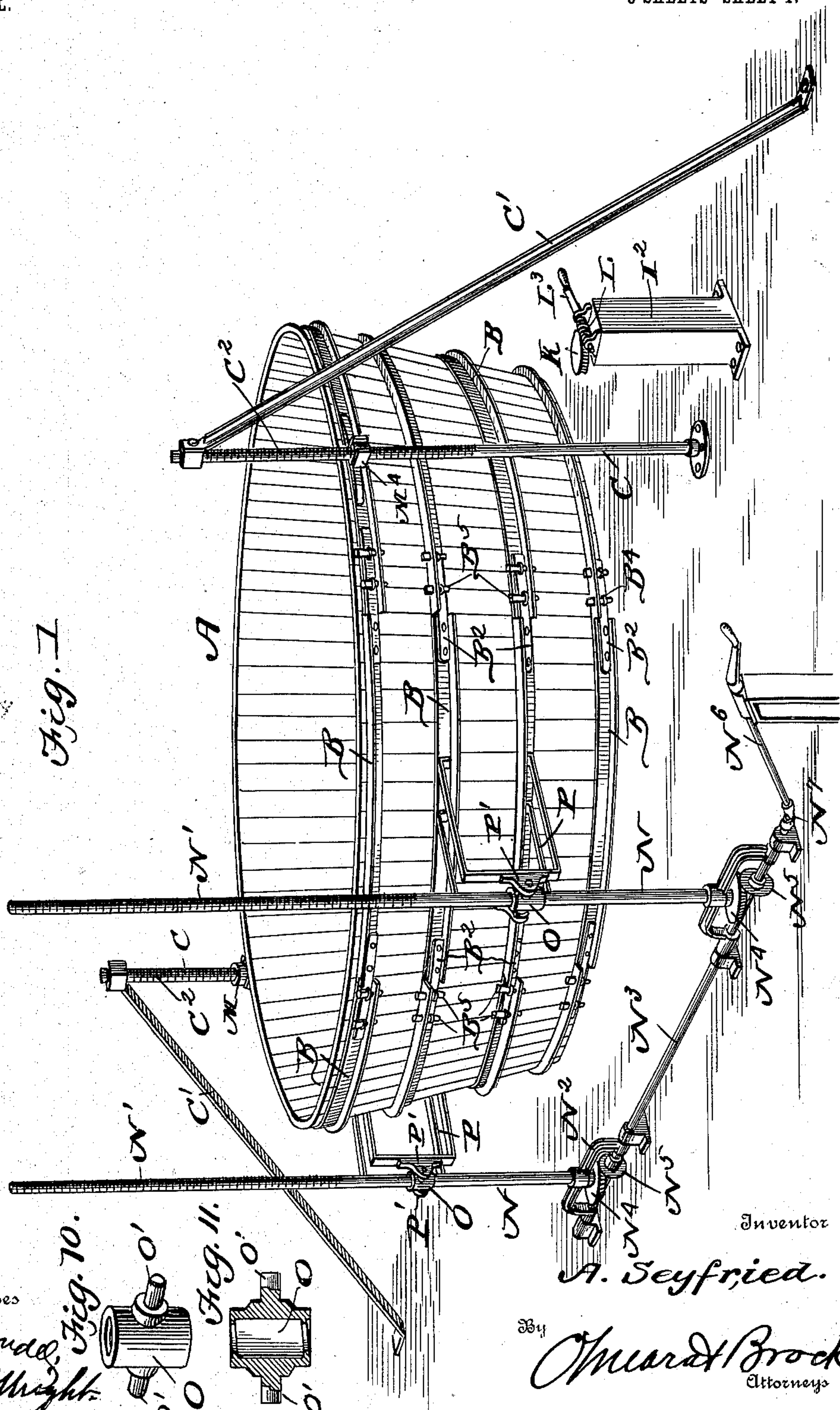
PATENTED AUG. 11, 1903.

A. SEYFRIED.
AMUSEMENT DEVICE.

APPLICATION FILED FEB. 7, 1903.

NO MODEL.

3 SHEETS—SHEET 1.



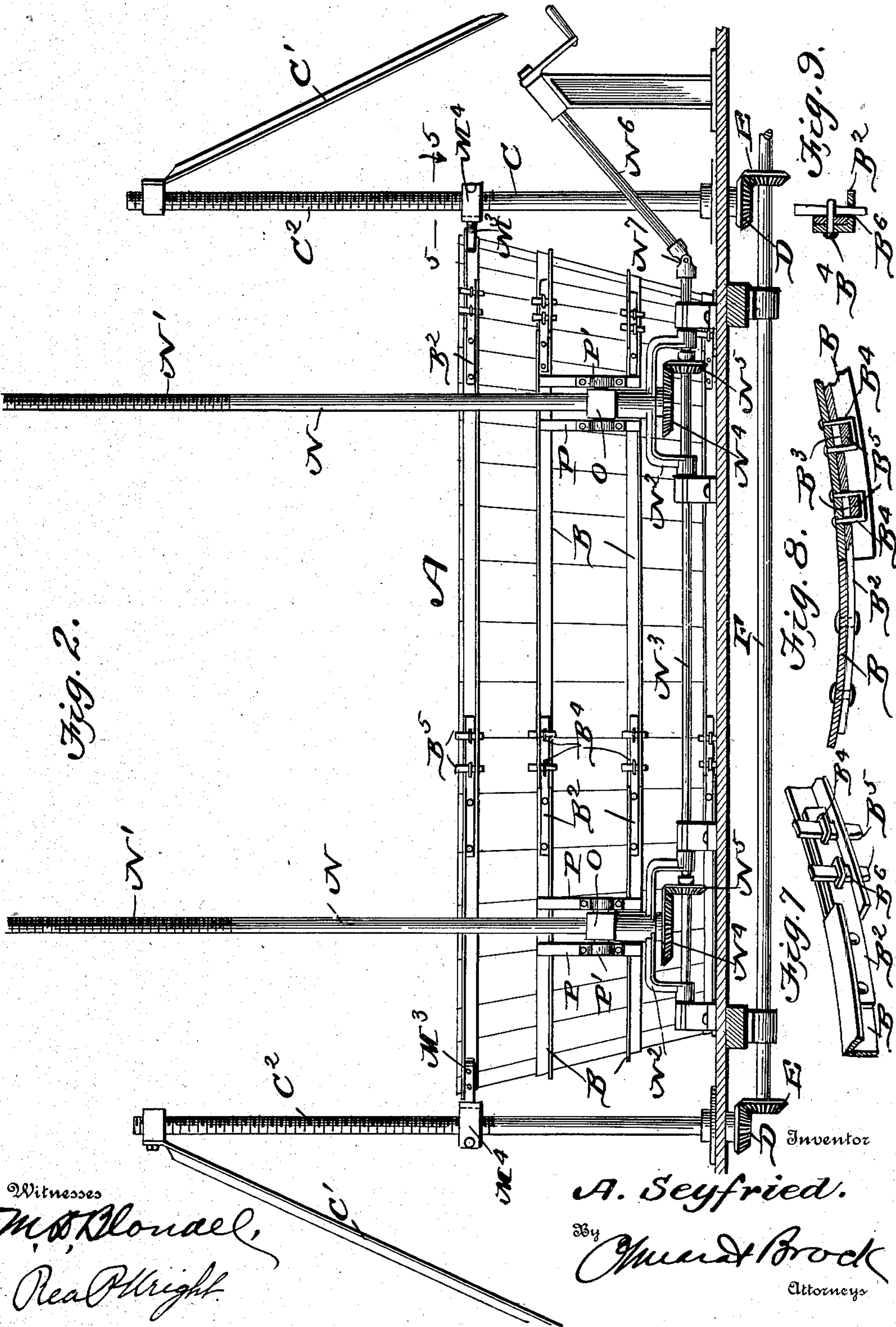
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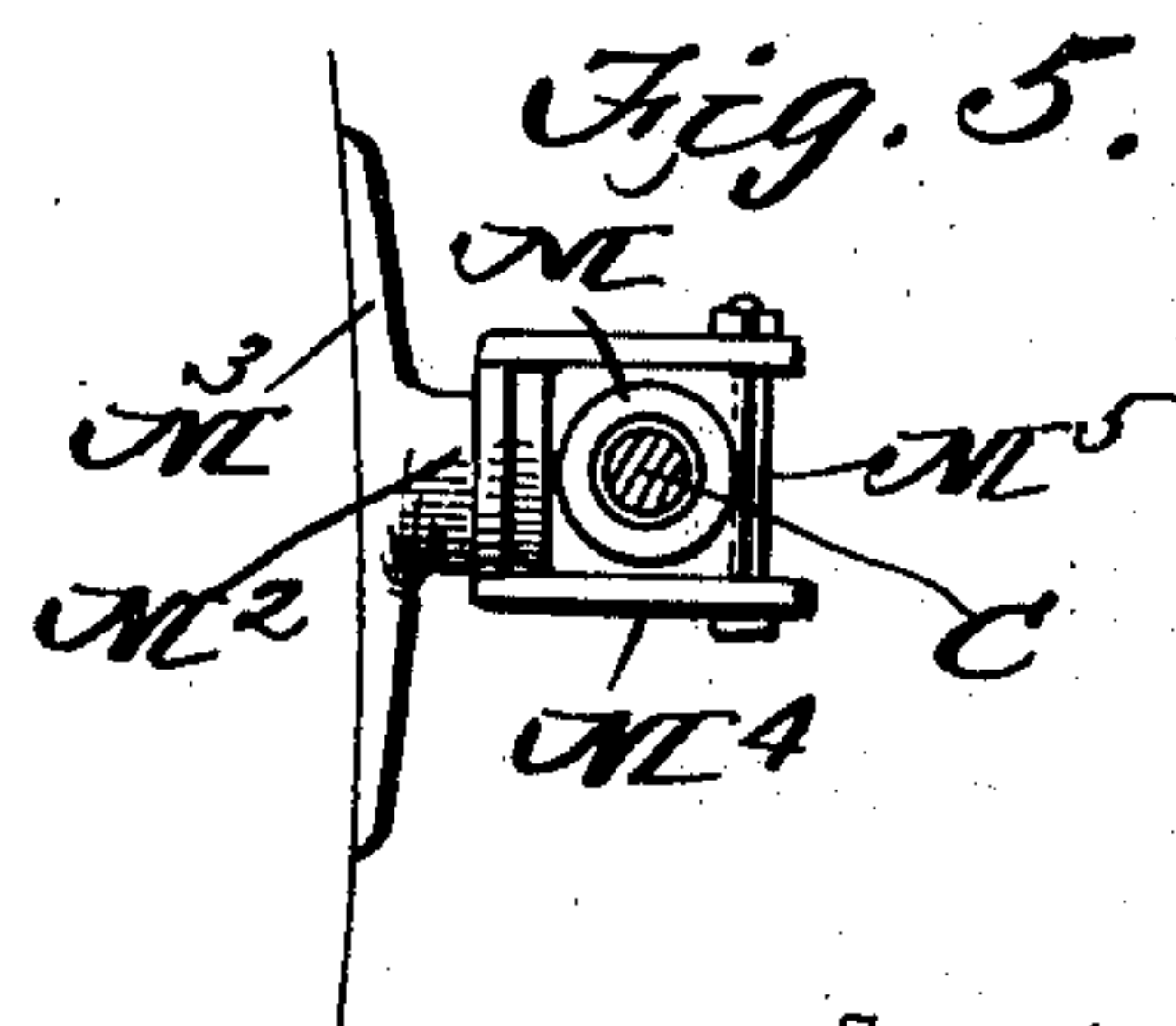
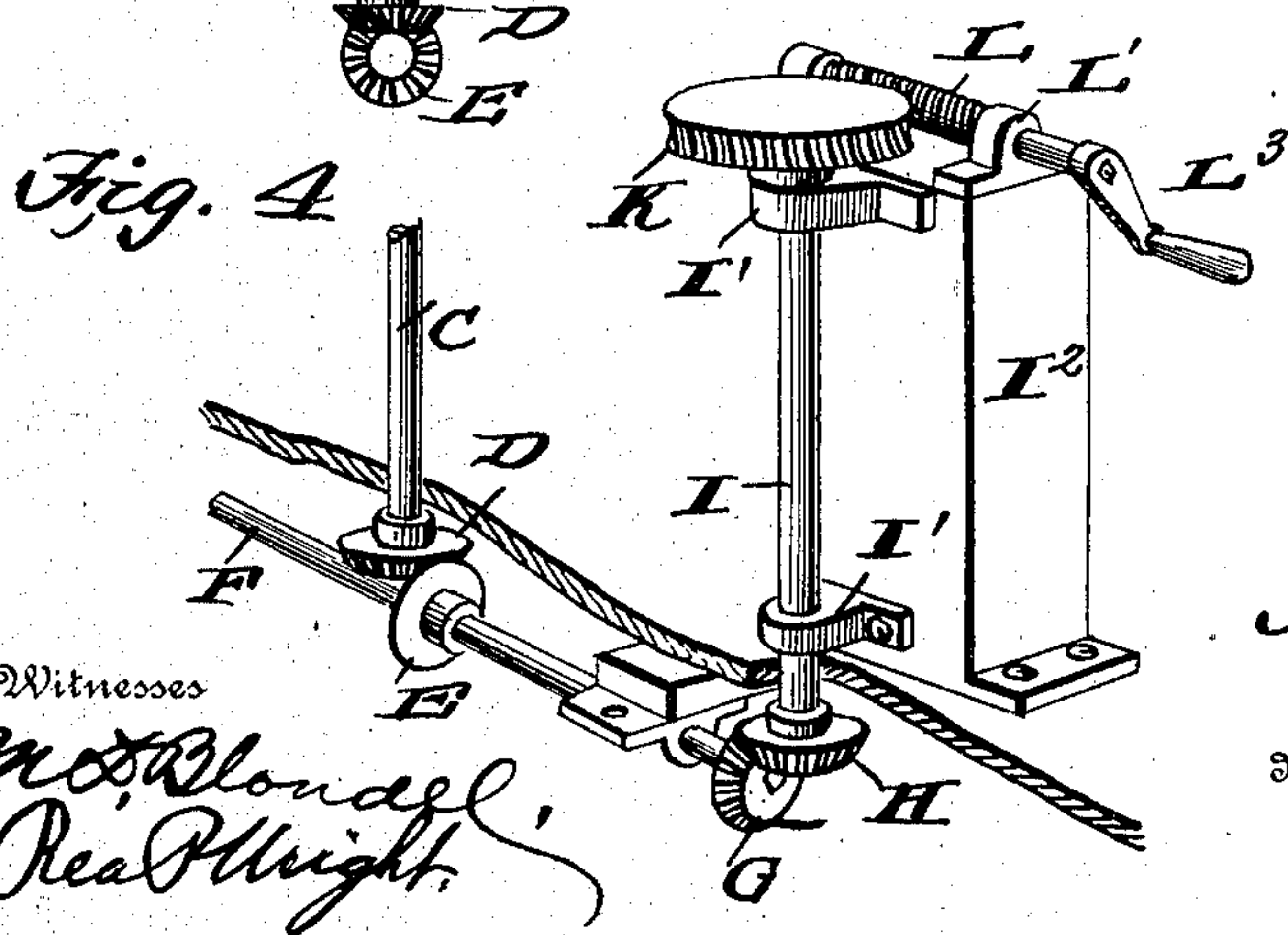
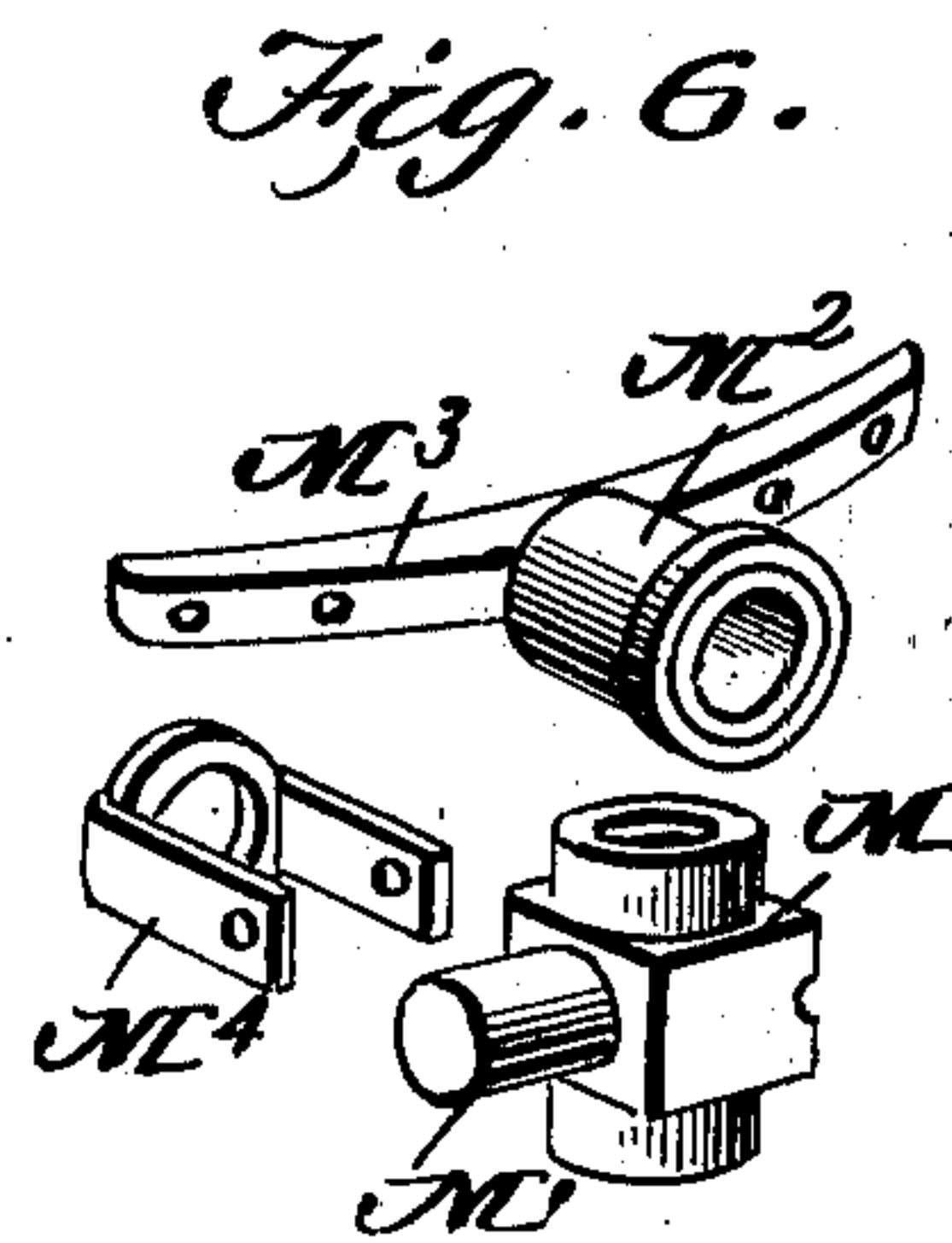
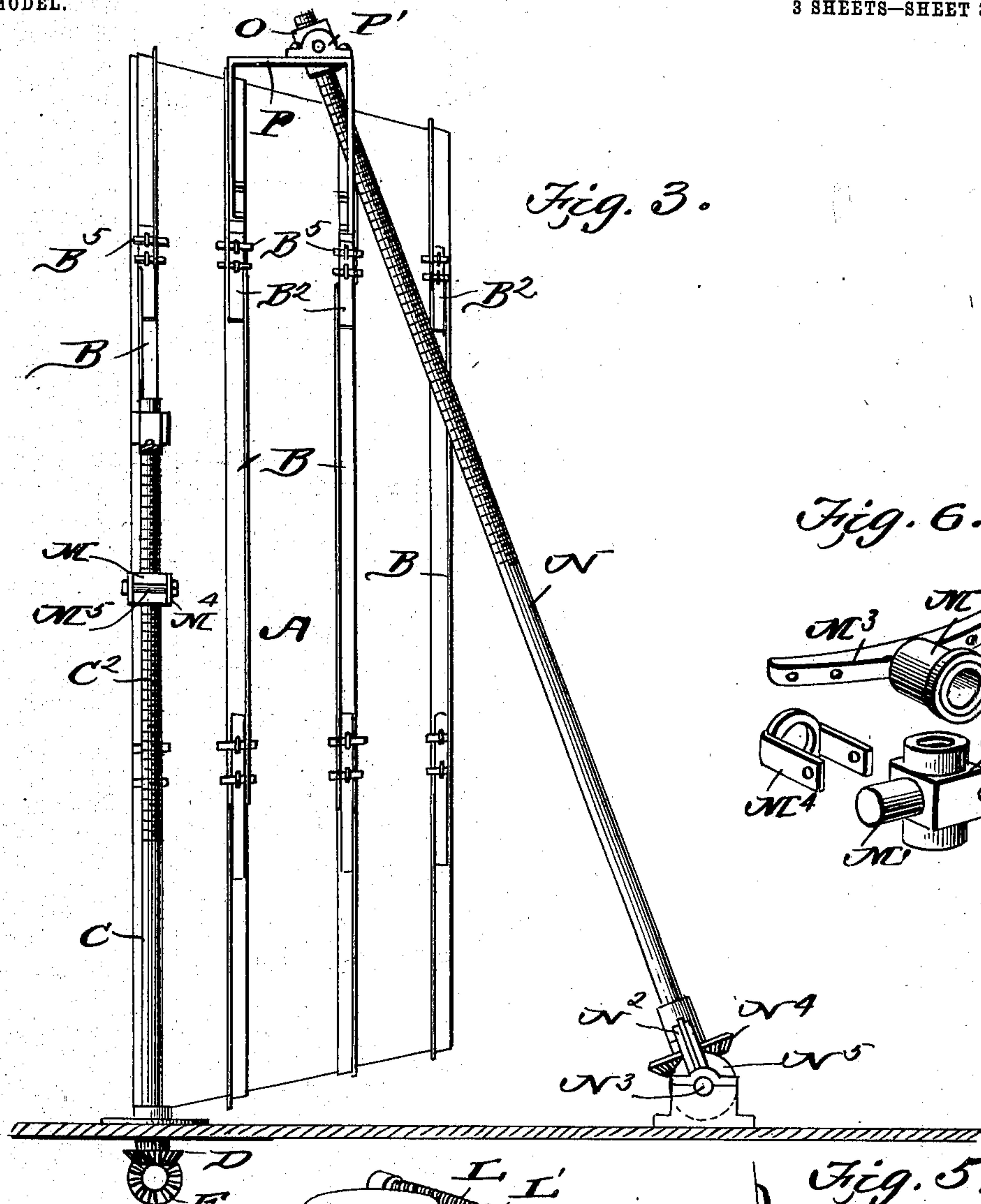
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3 SHEETS—SHEET 3.



Witnesses
M. J. Blonell,
Rea Wright.

Inventor
A. Seyfried.

By Mead Brock
Attorneys

UNITED STATES PATENT OFFICE.

AUGUST SEYFRIED, OF SAN FRANCISCO, CALIFORNIA.

AMUSEMENT DEVICE.

SPECIFICATION forming part of Letters Patent No. 736,305, dated August 11, 1903.

Application filed February 7, 1903. Serial No. 142,354. (No model.)

To all whom it may concern:

Be it known that I, AUGUST SEYFRIED, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Amusement Device, of which the following is a specification.

This invention relates generally to an amusement device known as the "cycle-maze," and more particularly to certain improvements upon the device shown and described in the application filed by August Seyfried and F. W. Sheelor August 9, 1902, Serial No. 119,050.

The object of the present invention is to provide improved means for raising and lowering and also for tilting the bowl-shaped track while in an elevated position.

With these objects in view the invention consists in the novel features of construction, combination, and arrangement, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a perspective view illustrating the bowl-shaped track provided with my improved means for elevating and tilting the same, the said track being slightly elevated upon the stage or other support. Fig. 2 is a side elevation of the said bowl-shaped track and means for raising and tilting the same. Fig. 3 is an edge view of said bowl-shaped track in its elevated and tilted position. Fig. 4 is a detail perspective view showing the improved mechanism for tilting the threaded shafts which raise and lower the bowl-shaped track. Fig. 5 is a detail sectional view on the line 5 5 of Fig. 2 and illustrating the pivotal connection between the bowl-shaped track and the threaded standards upon which and by which the said bowl-shaped track is elevated. Fig. 6 is a view illustrating in detail the parts comprising said pivotal connection. Figs. 7, 8, and 9 are detail views illustrating the manner of connecting the ends of the bands encircling the bowl-shaped track. Figs. 10 and 11 are detail views illustrating the pivotal connection between the bowl-shaped track and threaded rods for supporting the same after the said bowl-shaped track has been elevated.

In carrying out my invention I employ a

bowl-shaped track A, having a plurality of flanged iron bands B encircling the same, said bands having their flanges arranged alternately upon their upper and lower edges, as most clearly shown in Fig. 7. The ends of these bands are united by spliced plates or bars B², one end of which is fastened to one end of one band, the opposite end overlapping the adjacent end of the other band and having apertures B³, through which project staples B⁴, carried by the other band, and wedge-shaped keys B⁵ are passed through the said standards and also through openings B⁶, produced in the flange of the band carrying the standards. This construction enables me to securely attach the bands to the bowl-shaped track, thereby holding the stays or sections of said track thoroughly tight. For the purpose of elevating the track I employ two standards C, arranged upon opposite sides of the track and adjacent thereto, said standards being braced by suitable rods C', which are connected to the standards adjacent to their upper end and extending obliquely downward to the stage or floor and to which they are securely bolted.

The standards are threaded, as shown at C², for the greater portion of their height or length, said threads extending from the upper end downwardly, as most clearly shown in Figs. 1 and 2. These standards pass through the floor or stage and are provided with suitable journals to hold them in their proper positions. Each standard has a bevel-gear D, mounted upon the lower end thereof, each gear meshing with a bevel-gear E, mounted upon the horizontal shaft F, journaled in suitable bearings arranged beneath the floor or stage, said shaft having a bevel-gear G upon one end thereof, which meshes with another bevel-gear H, carried upon the lower end of the shaft I, which is journaled in suitable bearings I', arranged upon the side of the standard I², mounted upon the floor or stage.

The shaft I passes downwardly through the floor or stage, and the intermeshing gears G and H are both arranged beneath said floor. A worm-gear K is mounted upon the upper end of the shaft I and has a worm-shaft L meshing therewith, said worm-shaft being journaled in suitable bearings L', arranged upon the upper end of the standard I² and

provided with a suitable crank L^3 or other means for rotating the said worm-shaft.

Each threaded standard C has a nut M arranged thereon, which nuts are raised or lowered upon the threaded shaft C, according to the direction of rotation of said shafts. Each nut M carries a trunnion M' , upon which fits a tubular bearing M^2 , which is connected to the side of the track by suitable fastenings M^3 .

M^4 indicates a yoke, which is adapted to encircle the shoulder-bearing M^2 , straddling the nut M, and is securely fastened thereto by means of a bolt M^5 , thereby connecting the track and means for elevating the same. Thus it will be noted that by turning the crank-handle and operating the worm-shaft the worm-gear is rotated, imparting motion to the horizontal shaft F, which in turn rotates their upright standards, and as the nuts M are arranged upon these standards the nuts will be moved up or down upon said standards, and as the tubular bearings are rigidly connected to the bowl-shaped track upon opposite sides it is obvious that the said track will be moved up or down, according to the direction the crank-handle is moved. After the track has been raised or lowered to a definite height the said track is tilted or turned until it assumes a practically vertical or perpendicular position, and in order to accomplish this upright or turning movement I employ two shafts N, which are threaded for the greater portion of their length, as shown at N' , the lower ends of said shafts being journaled in brackets N^2 , which turn freely upon a horizontal shaft N^3 .

Bevel-gears N^4 are arranged upon the lower ends of the shafts N, and these gears mesh with bevel-gears N^5 , mounted upon the shaft N^3 , said shaft N^3 being operated by means of a crank-shaft N^6 , which is connected to the shaft N^3 by means of a universal joint N^7 . Each shaft N has a nut O moving thereon, each nut having oppositely-disposed trunnions O' , to which are connected the ears or lugs P' of the brackets P, said brackets being connected to the bowl-shaped track by connecting the inner ends of the same in any suitable manner to the straps or bands encircling the said track. After the track has been elevated a proper distance the shafts N are rotated, causing the nuts O to be moved upwardly, and this upward movement of the nuts serves to tilt or turn the track through the medium of the brackets, and during such upward movement of the nuts the shafts N are tilted by rocking the brackets N^2 upon the shaft N^3 , as most clearly shown in Fig. 3.

The practical operation of the device is as follows: The bicycle-rider enters the bowl-shaped track and proceeds to ride therein, and while so riding the track is elevated by operating the crank-handle. The rapid motion of the rider causes the rider and machine to assume a position substantially at right angles to the sides of the bowl-shaped track,

and while riding in this position the bowl-shaped track is tilted or turned until the said track assumes a substantially vertical or perpendicular position, and during the entire operation the rider continues to move in a constantly-changing plane, but at all times his position is substantially at right angles to the sides of the bowl-shaped track, and when the said bowl-shaped track has been moved to a perpendicular position the rider will be riding in a substantially vertical plane. As before stated, the bowl-shaped track is tilted or turned by operating the crank-shaft N^6 . The track is brought back to its horizontal position and lowered by reversing the movements of the mechanism just described. It will be noted that the lower ends of the shafts N are smooth and not threaded. This permits the nuts O to slide freely upon the lower portion of these shafts, so that the bowl-shaped track can be elevated to the proper height before the tilting operation begins, and, if desired, the elevating and tilting operation can be carried on simultaneously by having the worm-shaft and crank-shaft operate simultaneously, and it will thus be necessary to elevate the bowl-shaped track a certain distance before the turning operation can begin, thereby preventing the lower edge of the bowl-shaped track contacting with the floor or stage during the turning operation.

It will thus be seen that I provide a simple, safe, and efficient mechanism for raising, lowering, and tilting or turning the bowl-shaped track.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. An amusement device comprising a bowl-shaped track, threaded standards arranged upon opposite sides of said track, nuts movable upon the said threaded standards, the pivotal connections between the bowl-shaped track and the said nuts, means for operating the threaded shafts for the purpose of raising or lowering the bowl-shaped track, together with means for tilting or turning the said track when in an elevated position.

2. An amusement device comprising a bowl-shaped track, upright standards arranged upon opposite sides of said track, means connected with said upright standards for elevating the bowl-shaped track and means for tilting the same when in an elevated position.

3. The combination with a bowl-shaped track and means for supporting the same in an elevated position, the shafts arranged adjacent to one side of the said bowl-shaped track and means movable upon the said shafts and connected with the bowl-shaped track whereby the said track is tilted or turned, as specified.

4. The combination with the bowl-shaped track, of the threaded standards, the nuts movable upon said standards, the pivotal connection between the said nuts and the

bowl-shaped track, means for operating the threaded standards, the threaded shafts having nuts thereon, the pivotal connections between the said nuts and the bowl-shaped track and means for operating the said shafts whereby the nuts thereon are raised or lowered, for the purpose specified.

5 5. The combination with a bowl-shaped track, of the threaded standards, the nuts
10 arranged thereon, said nuts carrying trunnions, the tubular bearings rigidly connected to the bowl-shaped track and means for connecting the tubular bearings to the nuts, means for rotating the threaded shafts simultaneously for the purpose of raising or
15 lowering the bowl-shaped track, the threaded shafts and means for operating the same, the nuts movable upon said threaded shafts, the brackets pivoted to the nuts and rigidly con-

nected to the bowl-shaped track, all of said 20 parts being arranged and adapted to operate substantially as shown and described.

6. In a device of the kind described a bowl-shaped track having a plurality of bands encircling the exterior thereof, said bands being sectional, each section having a flange, said flanges being arranged alternately, the
25 spliced bars rigidly connected to one band, the free end of each spliced bar having one or more openings, the staples carried by the adjacent band and adapted to pass through
30 the openings in the spliced bar and the wormshaft and keys for locking the meeting ends of the bands and spliced bars, as specified.

AUGUST SEYFRIED.

Witnesses:

MICHAEL ANGELO BROOKS,
EARNEST J. SEYFRIED.