

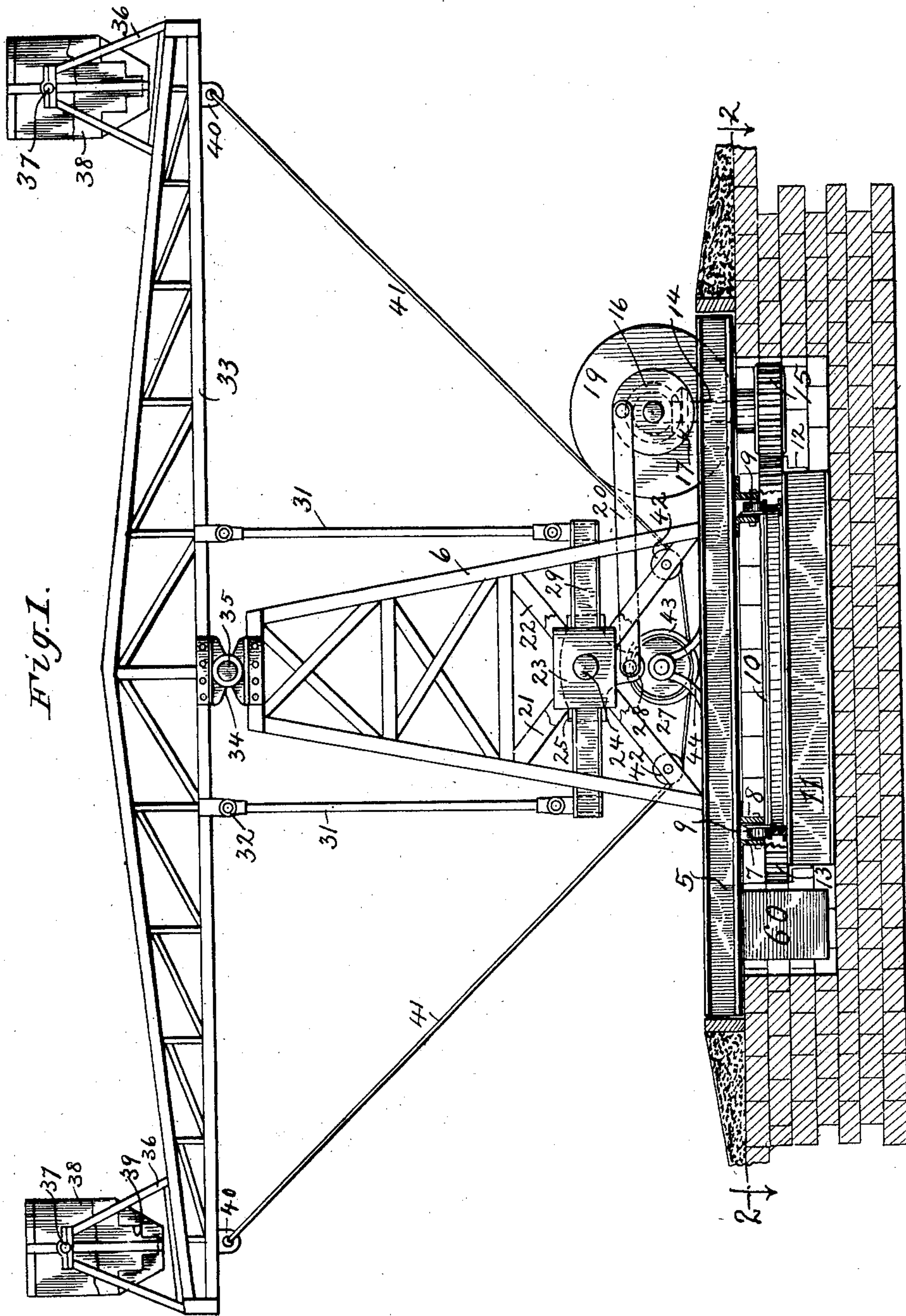
No. 826,682.

PATENTED JULY 24, 1906.

W. J. MORGAN.
SEESAW.

APPLICATION FILED JAN. 4, 1906.

2 SHEETS--SHEET 1.



WITNESSES

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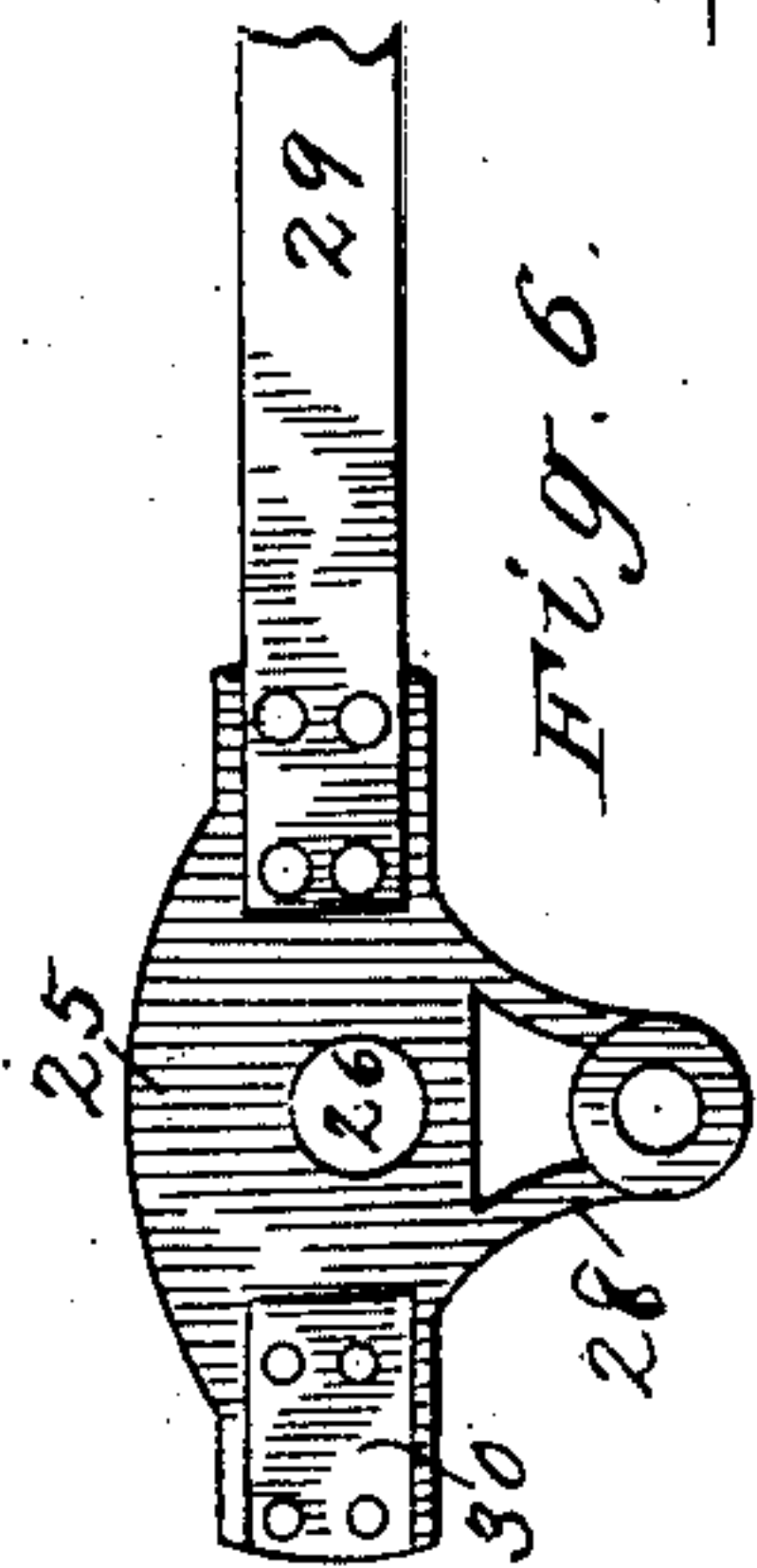
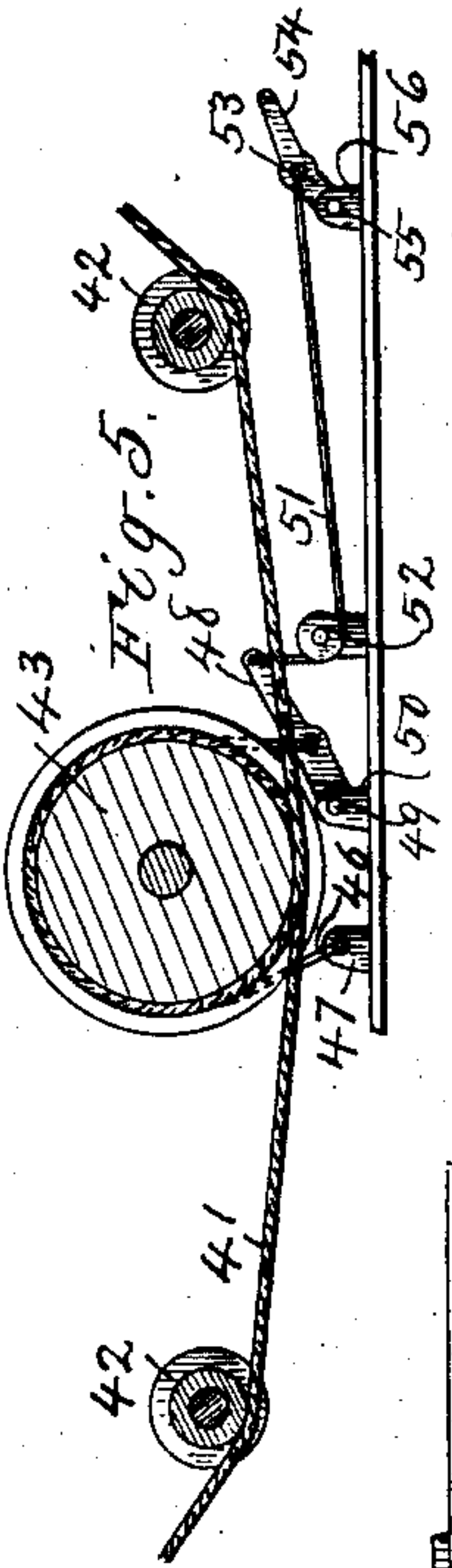
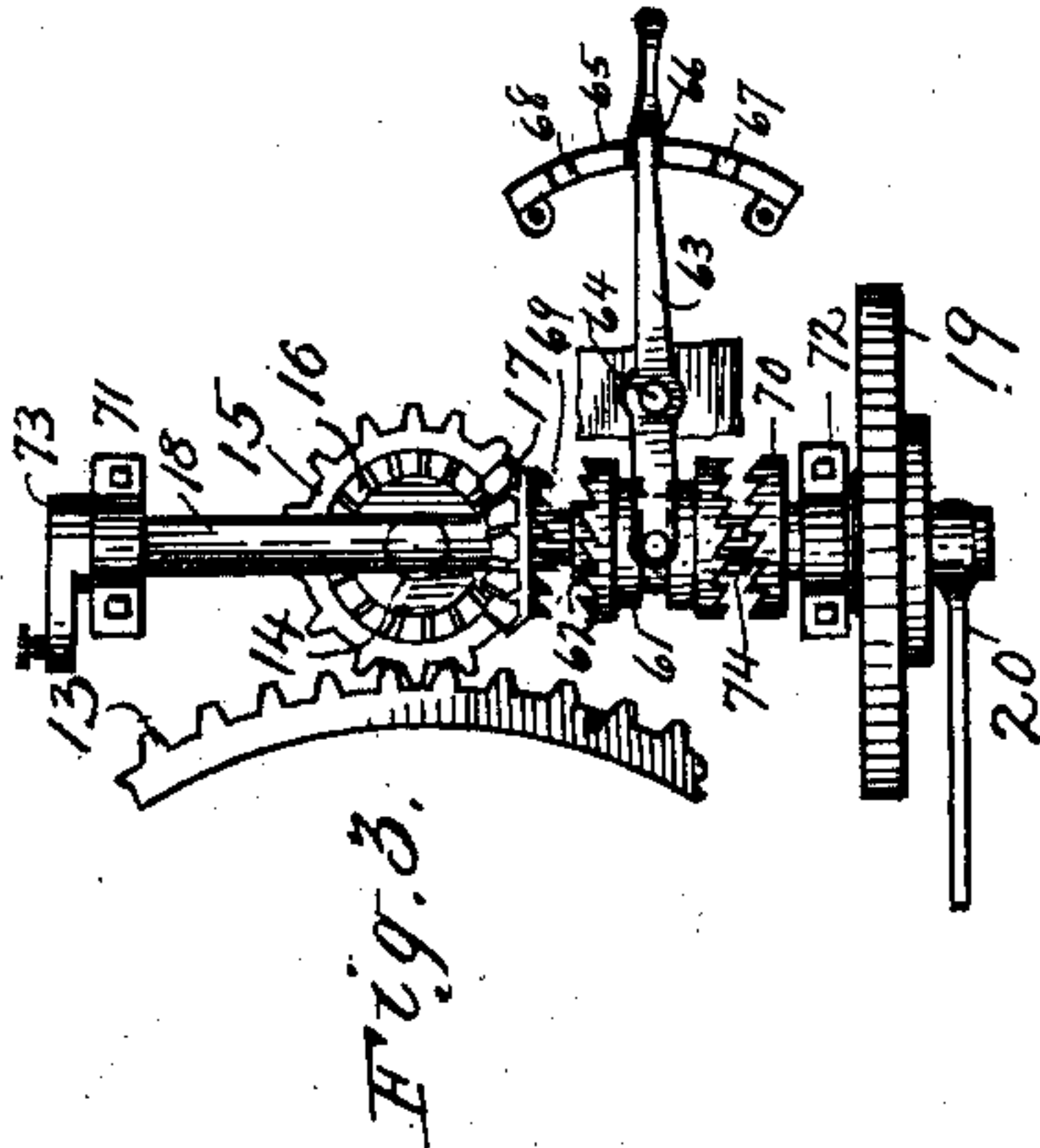
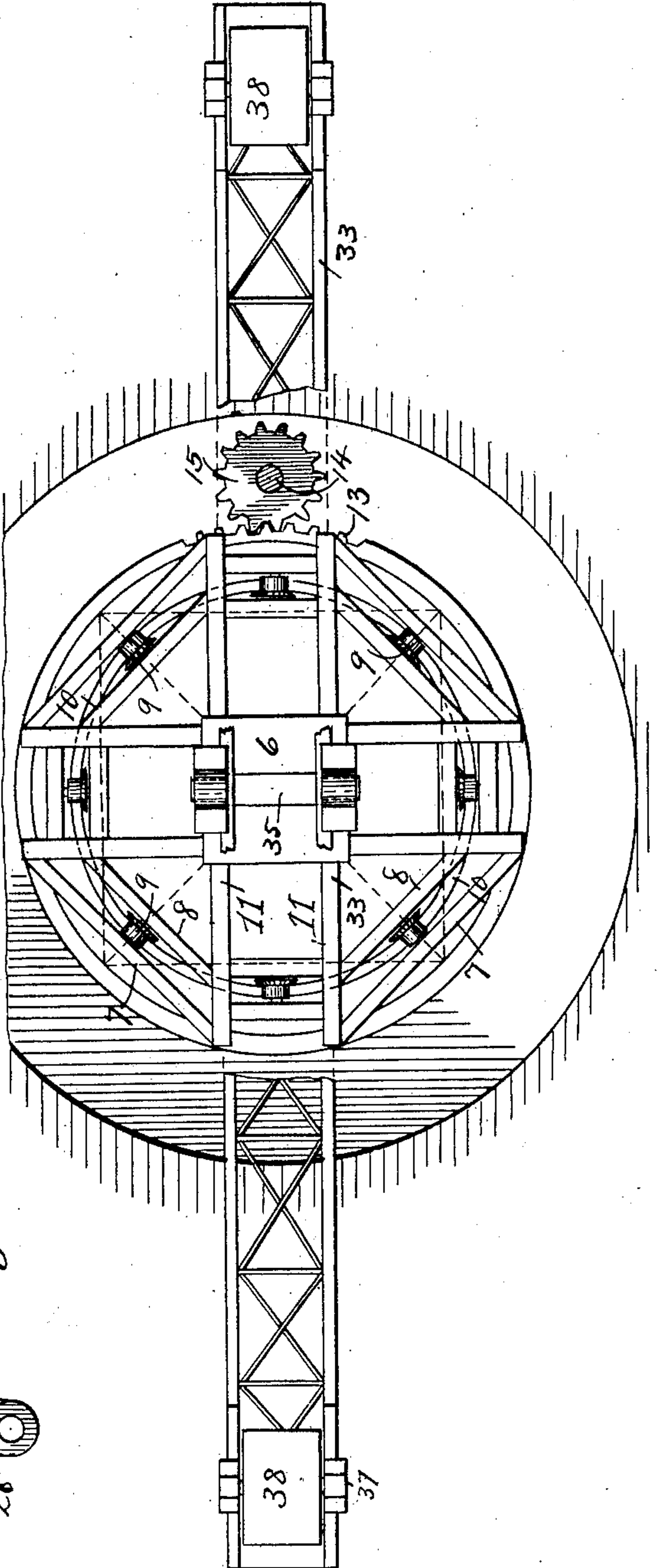


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM J. MORGAN, OF KANSAS CITY, MISSOURI.

SEESAW.

No. 826,682.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed January 4, 1906. Serial No. 294,575.

To all whom it may concern:

Be it known that I, WILLIAM J. MORGAN, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Seesaws, of which the following is a specification.

My invention relates to a tilting and revolving amusement device particularly adapted for use at excursion places, public parks, or other places where large numbers of people congregate for amusement or recreation.

The chief object of the invention is the provision of a revolving and tilting device embodying improved means for imparting motion thereto and for readily bringing the device to a stop when desired.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawings, Figure 1 is a side elevation of a seesaw constructed in accordance with the invention, showing the supporting-track mounted in a pit, the walls of said pit being in section and a portion of the framework of the tower being broken away. Fig. 2 is a horizontal section upon line 2 2 of Fig. 1 with the extreme outer ends of the tilting girder indicated in position and with the top of the tower shown in full lines, the remainder of said tower being shown in dotted lines to preserve the clearness of the drawing. Fig. 3 is a detail plan view of a portion of the driving mechanism hereinafter described. Fig. 4 is a detail plan view of the brake-pulley. Fig. 5 is a vertical section of said brake-pulley, showing a brake mechanism, hereinafter described, in side elevation; and Fig. 6 is a detail view of an oscillating bracket hereinafter described.

Like numerals of reference designate corresponding parts in all of the figures of the drawings.

Mounted upon a horizontal frame 5 is a tower 6. Secured to the bottom of frame 5 are parallel beams 7 and 8, between which are flanged wheels or rollers 9, disposed to run upon a circular track 10, said track in turn being mounted upon a base-frame composed of I-beams 11.

Secured to the base-frame 11 by angle-irons 12 and held rigidly in position by said angle-irons is a rack 13. Mounted in frame 5 is a vertical shaft 14, carrying upon its lower end a pinion 15, which meshes with rack 13. Mounted upon the upper end of

the vertical shaft 14 is a bevel-pinion 16, meshing with a second bevel-pinion 17. Pinion 17 is loosely mounted upon a power-shaft 18, to which motion is imparted by a motor, (not shown,) said motor being located upon the rotative frame 5 and moving therewith. Loosely mounted upon the opposite end of power-shaft 18 is a sleeve 74, secured to a crank-disk 19, to which is connected one end of a connecting-rod 20.

Secured at the junction of the diagonal braces 21 and 22, which form a portion of tower 6, are bearing-blocks 23. These bearing-blocks carry trunnions 24, upon which is mounted an oscillatory bracket 25, having an opening 26 formed therein for the reception of said trunnions. One end of the connecting-rod 20 is connected, as at 27, to a depending portion 28 of bracket 25. Arms 29 are secured in recesses 30 of the oscillatory bracket and extend in opposite directions. To the outer ends of these arms are pivoted connecting-rods 31, the upper ends of which are in turn pivoted at 32 to a tilting girder 33, which is trunnioned, as at 34, upon a transverse shaft 35, carried upon the upper portion of tower 6.

Secured upon the outer ends of girder 33 are car-supporting frames 36, in which are trunnioned, as at 37, passenger-carrying cars 38, which are provided with seats 39. Upon the lower face of girder 33 and near the outer ends thereof are ears or lugs 40, to which are secured the ends of a cable 41, which passes over idler-rolls 42, carried by frame 5, and is given one full turn about a brake wheel or band 43, as is clearly illustrated in Fig. 5. Brake-wheel 43 is rotatively mounted in a bracket 44, carried by frame 5.

A brake-band 46, secured to an ear 47, passes around a portion of the brake-wheel and is secured to a lever 48. One end of this lever is pivoted, as at 49, to an ear 50. Secured to the outer end of the lever is a cable 51, which passes over a roller 52 and is connected at 53 to a foot-lever 54, the inner end of which is pivoted, as at 55, to an ear 56.

From the foregoing description it will be seen that when the operator presses down upon the outer and free end of lever 54 the outer end of lever 48 will be drawn down to thereby apply a brake to the brake-wheel 43.

Splined to shaft 18 is a clutch 61, having toothed faces 62 and 74, adapted to engage either teeth 69 or 70, formed upon gear-wheel 17 and sleeve 19, respectively. Pivoted at

64 is a lever 63, one end of which engages the clutch 61 and the other end of which is provided with a handle. The outer end of the lever is adapted to engage notches 66, 5 67, and 68, formed in a curved plate 65, whereby said lever will be held against accidental displacement. A crank 73 indicates the point at which power is applied to shaft 18, said shaft being rotatively mounted in 10 bearings 71 and 72.

The operation of the device is as follows: In loading the cars the disk 19 is clutched to shaft 18 by clutch 61 and the girder is tilted until one end thereof reaches its limit of 15 movement toward the ground. The passengers for the car carried by that end of the girder then take their places in said car, after which the girder is tilted to its opposite limit of movement until the car carried by the 20 other end of said girder reaches its limit of movement toward the ground. The passengers for the second car then take their places in said second car.

When the operator applies power to the de- 25 vice through power-shaft 18 and the pinion 16 is clutched to shaft 18, the frame 5 and the tower carried thereby, together with the tilting girder, will rotate bodily owing to the engagement of pinion 15 with fixed rack 13. 30 When the clutch is shifted to clutch disk 19 to shaft 18, oscillatory movement is imparted to the girder through disk 19, connecting-rod 20, arms 29, and connecting-rods 31, as will be readily understood by referring 35 to Fig. 1.

When it is desired to bring the device to a stop, the brake mechanism (shown in Fig. 5) provides means for readily accomplishing this object.

40 A counterbalancing-weight 60, carried by the under side of frame 5, counterbalances the weight of the motor and the driving mechanism (shown in Fig. 3) and causes the device to run smoothly and evenly.

45 From the foregoing description it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention; but while the elements described are well adapted to serve the purposes 50 for which they are intended it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be

made within the scope of the appended claims. 55

Having thus described my invention, what I claim is—

1. In a device of the character described the combination with a rotative frame, of a tower mounted upon said frame, an oscilla- 60 tory car-carrying member trunnioned upon said tower, an oscillatory member pivoted in said tower, and connecting-rods which connect the outer ends of said oscillatory member with the car-carrying member. 65

2. In a device of the character described, the combination with a base comprising a circular track, of a revolving base mounted upon said track, a tower mounted upon said base, a tilting car-carrying member trun- 70 nioned upon said tower, an oscillatory member trunnioned in said tower, connecting-rods connecting the outer ends of said oscillatory member with the tilting car-carrying member, and means carried by the base for im- 75 parting movement to the oscillatory member which is mounted in the tower.

3. In a device of the character described, the combination with a base comprising a circular track, of a rotative base mounted 80 upon said track, a pinion carried by the rotative base, a fixed rack with which said pinion meshes, driving mechanism carried upon the base for imparting movement to said pinion, a tower mounted upon the base, a tilting 85 car-carrying member trunnioned upon said tower, an oscillatory member trunnioned in said tower, connecting-rods connecting the outer ends of said oscillatory member with the car-carrying member, means carried by 90 the revolving base for imparting oscillatory movement to the member trunnioned in the tower, a cable, the ends of which are secured adjacent the ends of the car-carrying member, a brake-wheel over which the bight of 95 said cable passes, and a counterbalancing-weight carried by the revolving base and counterbalancing the weight of the driving mechanism.

In testimony whereof I affix my signature 100 in presence of two witnesses.

WILLIAM J. MORGAN.

Witnesses:

HAL H. COOK,
JAMES E. TROGDON.