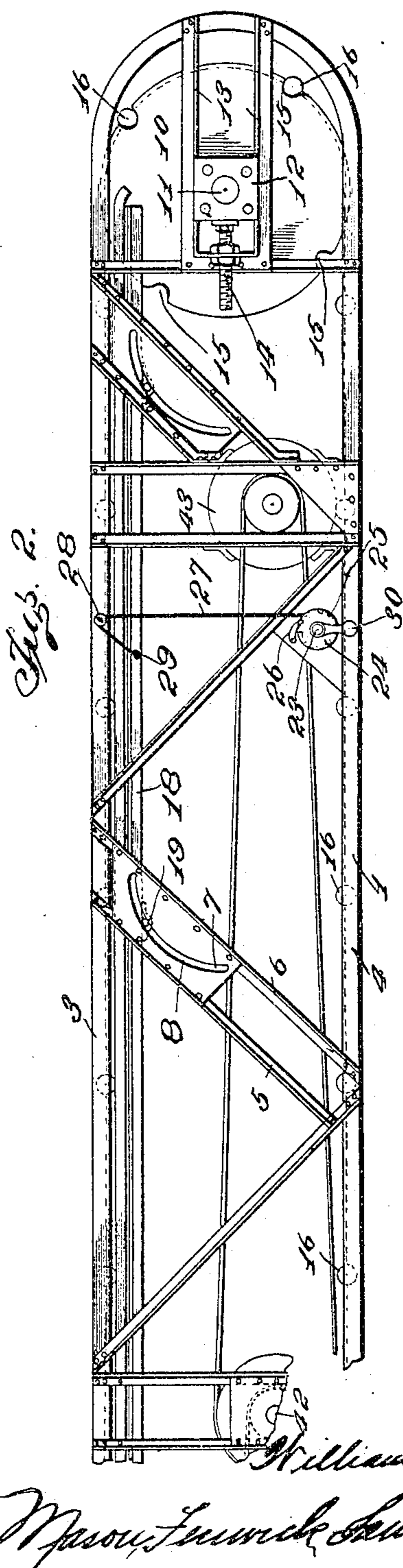
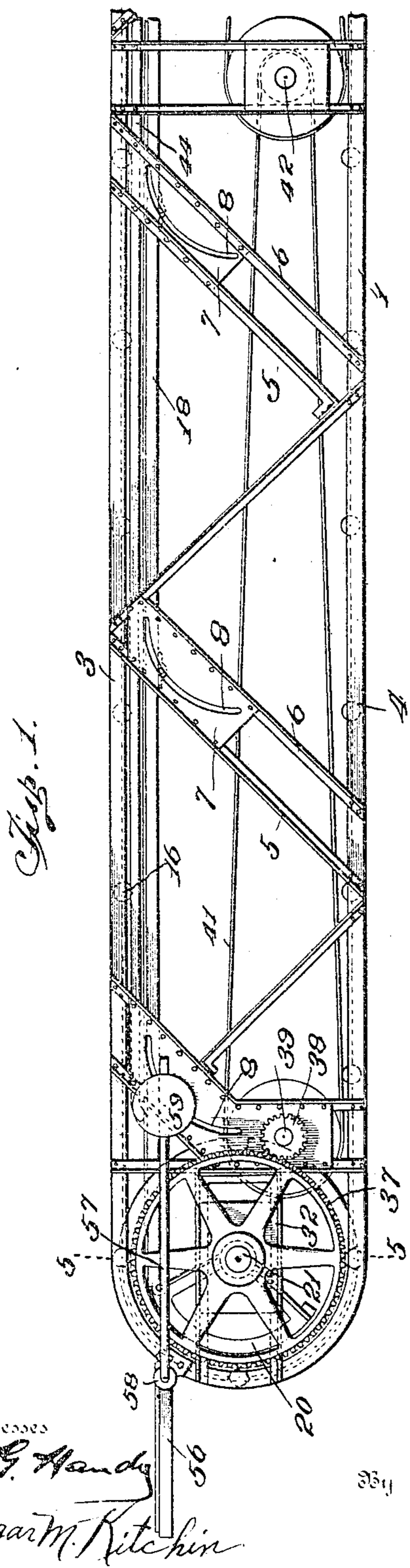


W. L. McCABE.
PORTABLE ENDLESS CONVEYER.

APPLICATION FILED FEB. 25, 1903.

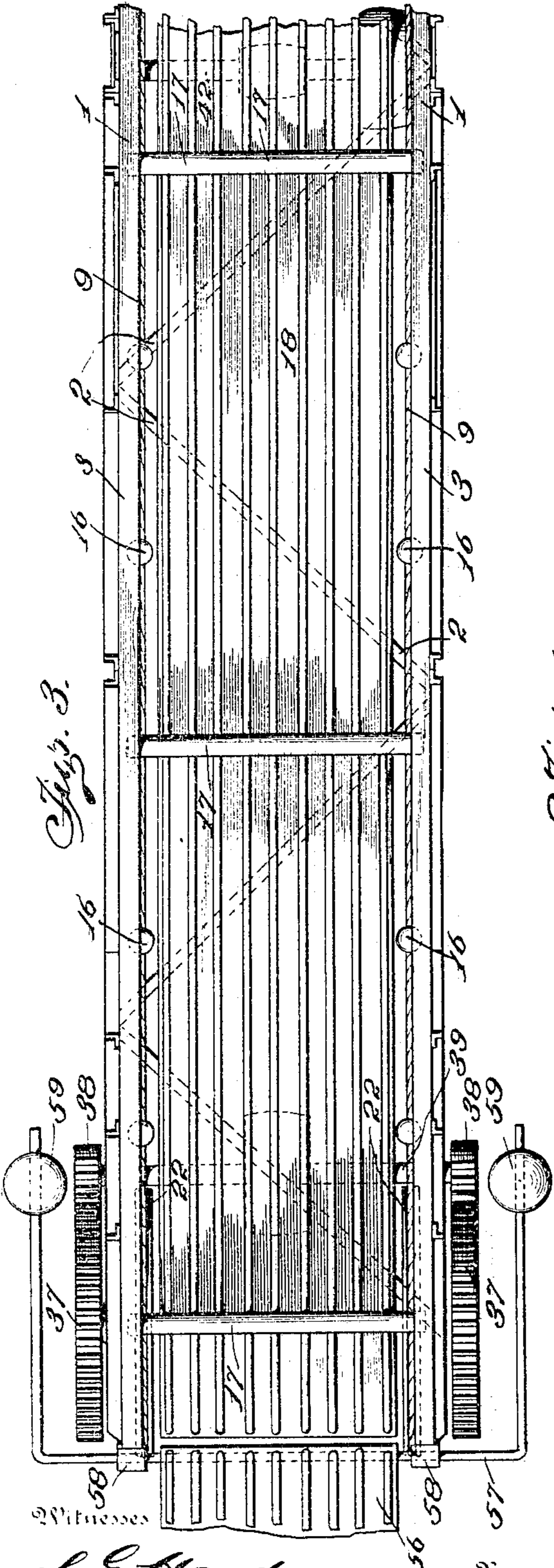
4 SHEETS—SHEET 1.



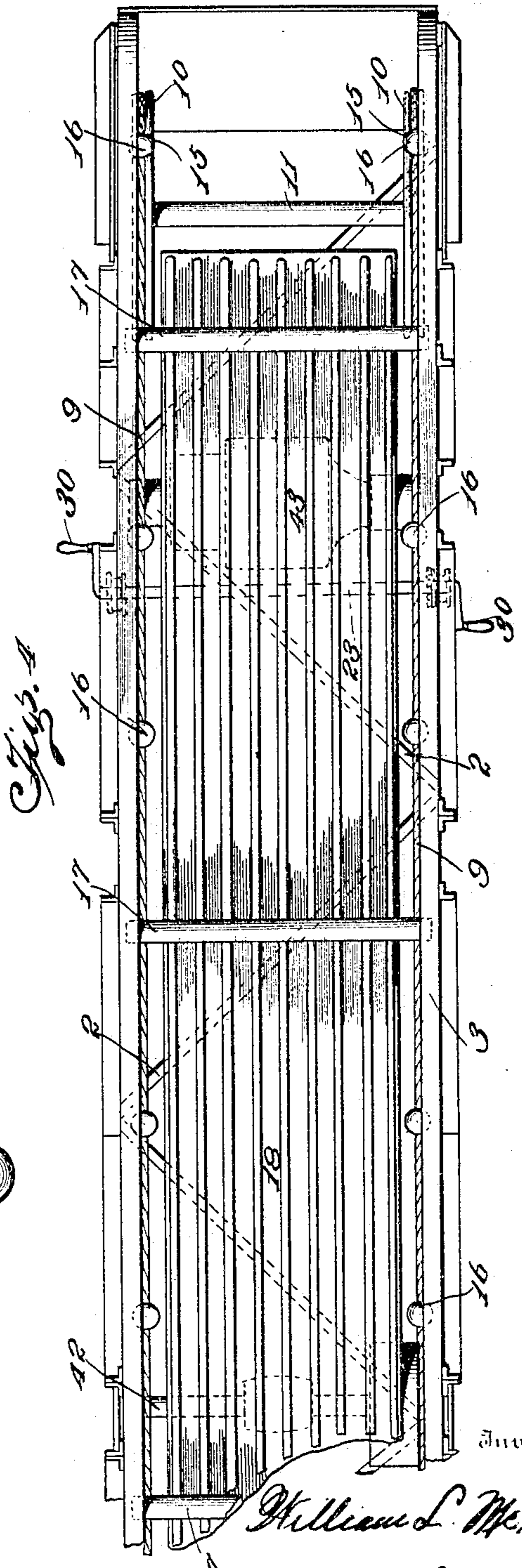
W. L. McCABE.
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4 SHEETS—SHEET 2.



Witnesses
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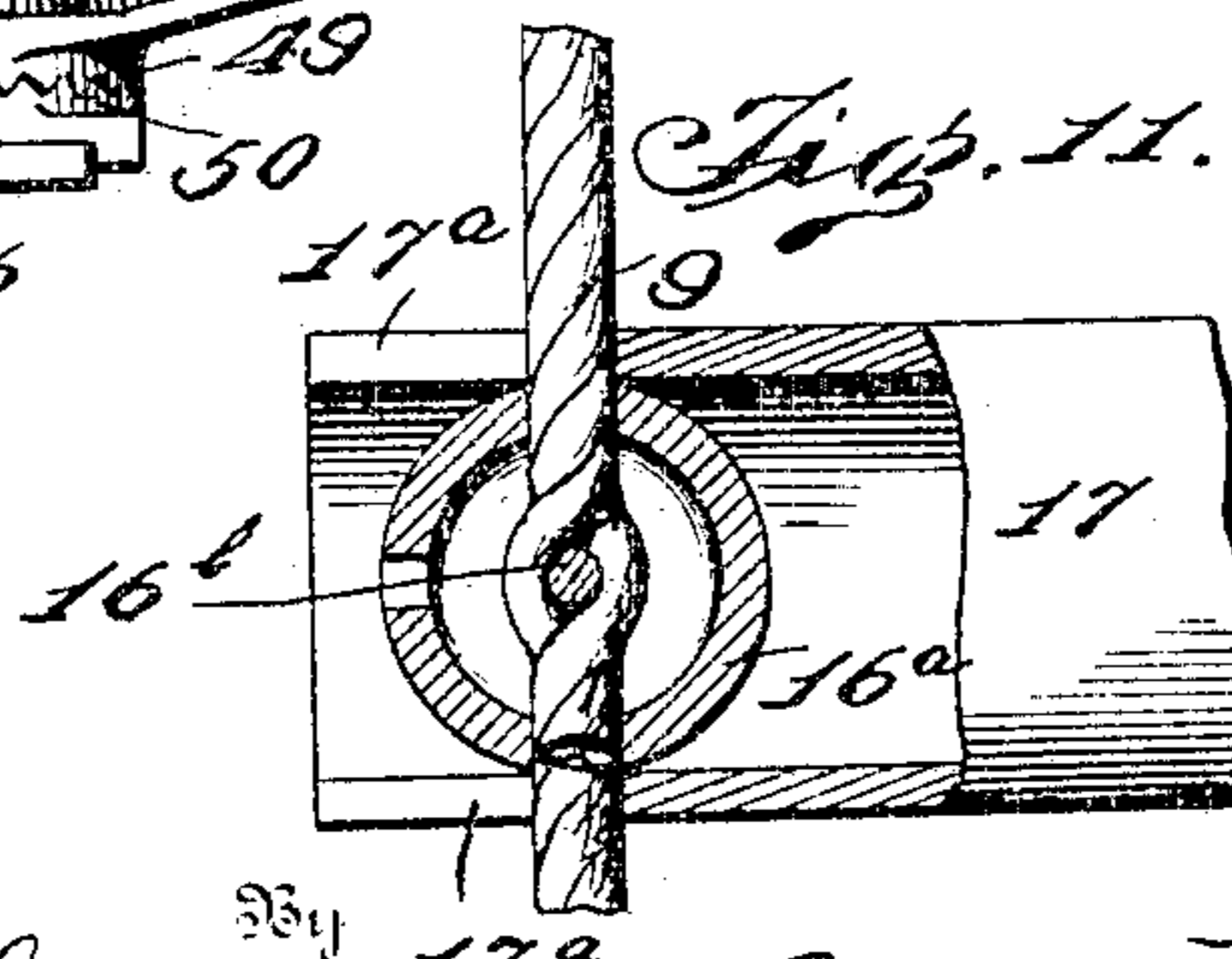
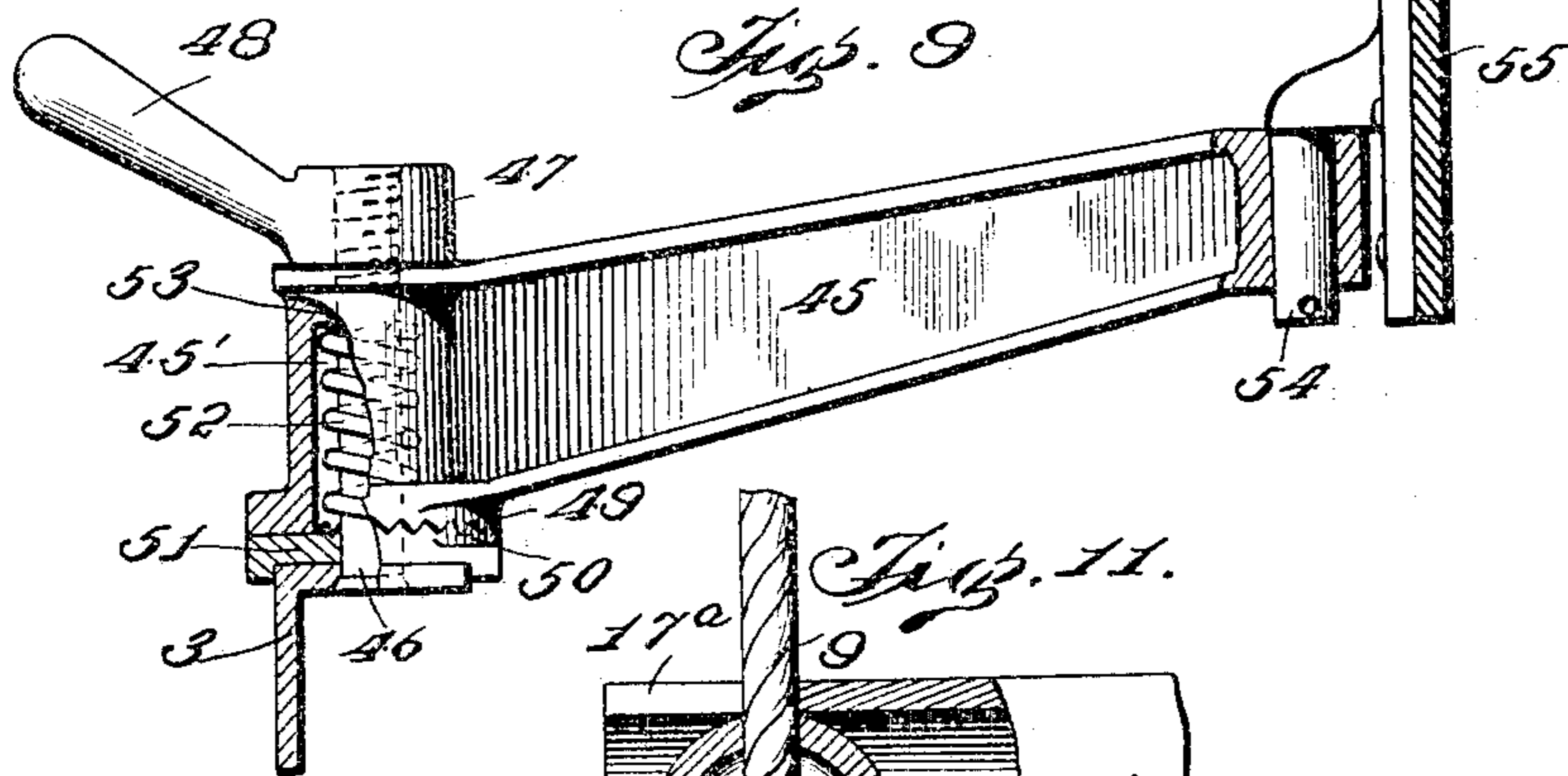
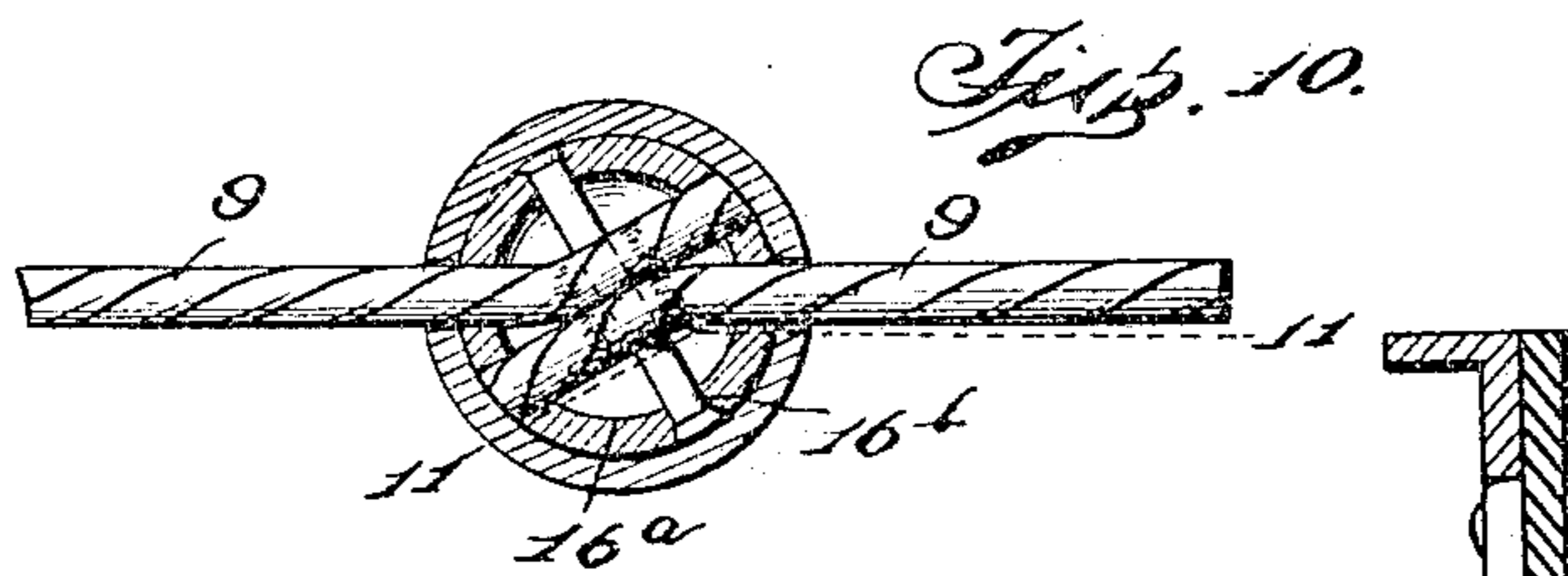
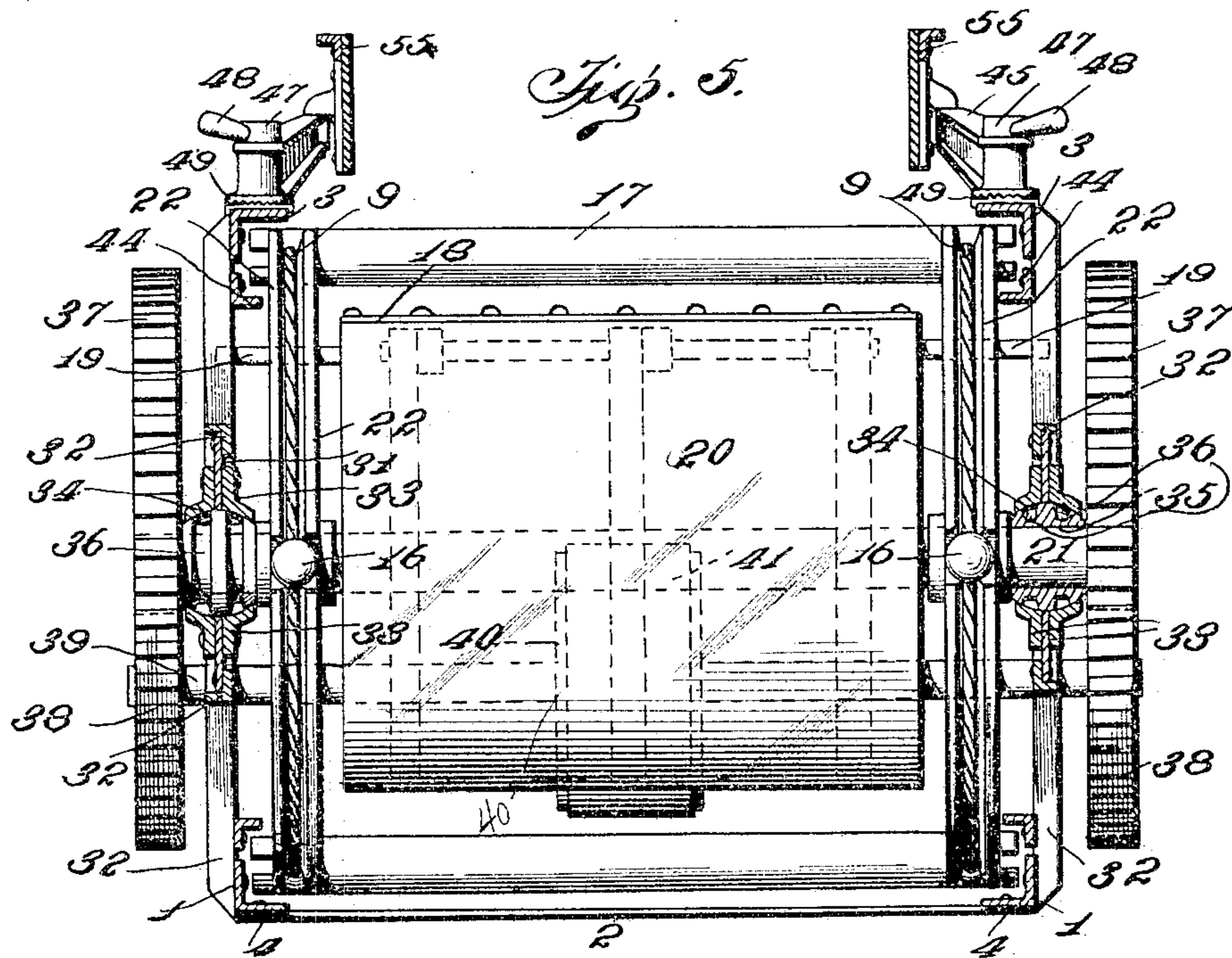
No. 781,614.

PATENTED JAN. 31, 1905.

W. L. McCABE.
PORTABLE ENDLESS CONVEYER.

APPLICATION FILED FEB. 25, 1903.

4 SHEETS—SHEET 3.



Witnesses

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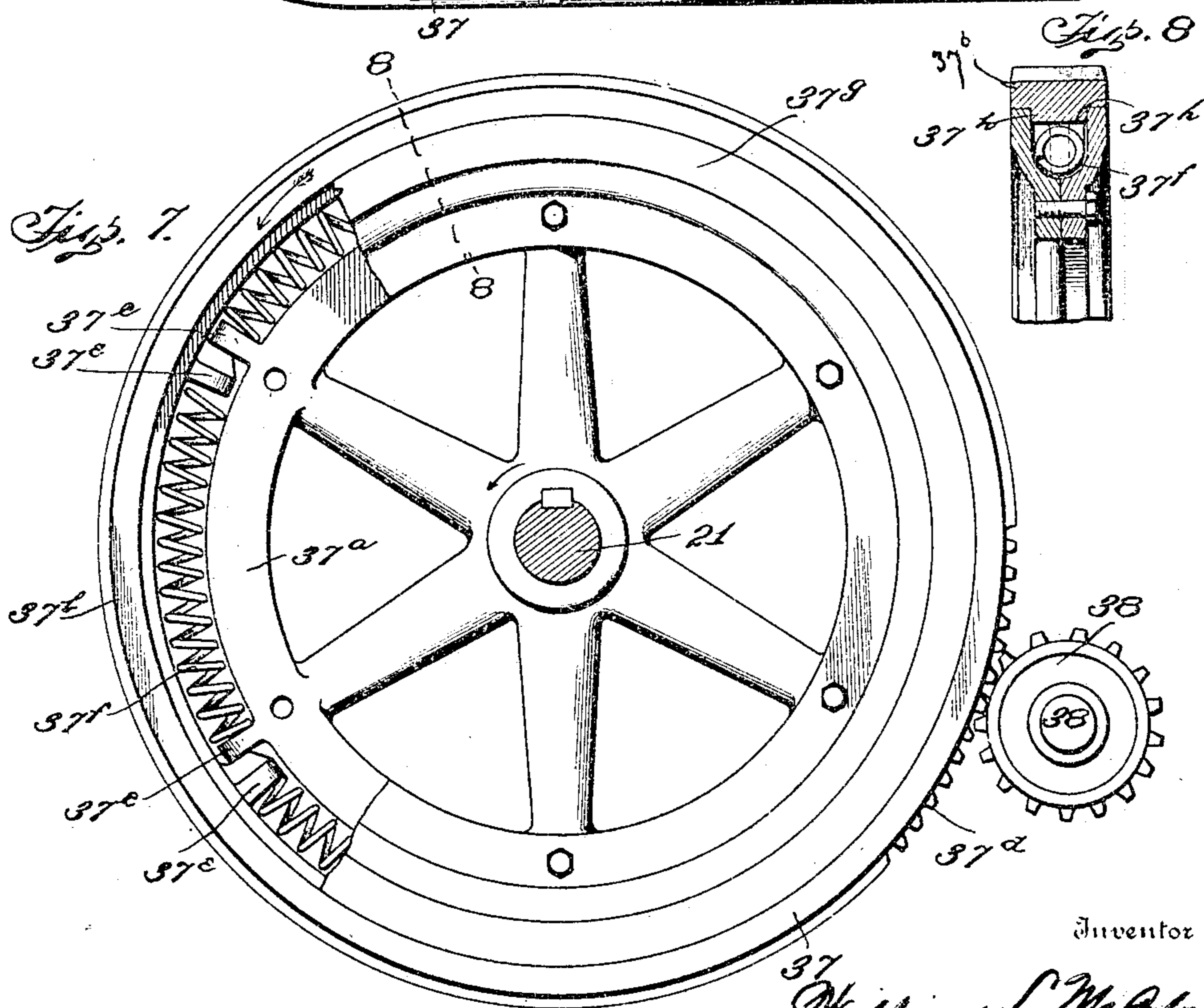
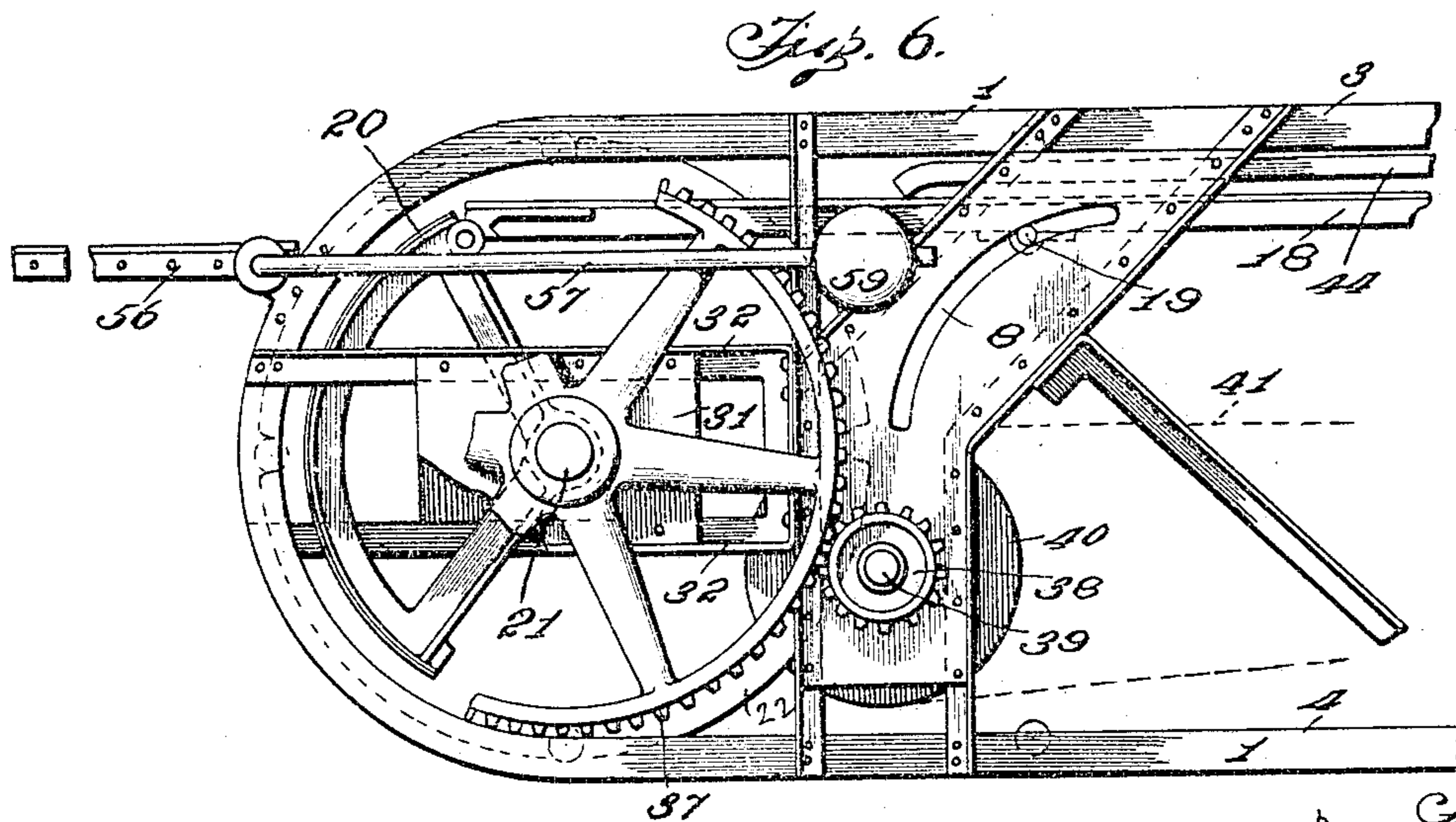
No. 781,614.

PATENTED JAN. 31, 1905.

W. L. McCABE.
PORTABLE ENDLESS CONVEYER.

APPLICATION FILED FEB. 26, 1903.

4 SHEETS—SHEET 4.



Witnesses

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WILLIAM L. McCABE, OF SEATTLE, WASHINGTON.

PORTABLE ENDLESS CONVEYER.

SPECIFICATION forming part of Letters Patent No. 781,614, dated January 31, 1905.

Application filed February 25, 1903. Serial No. 145,055.

To all whom it may concern:

Be it known that I, WILLIAM L. McCABE, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Portable Endless Conveyers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in portable endless conveyers, and particularly to adjustable devices therefor for the handling of articles of various sizes.

The object in view is the provision of means for conveying articles and preventing their receiving shocks or jars during transit.

A further object of the invention is the provision of means for adjusting the parts for accommodating packages of different widths and thicknesses.

With this and other objects in view the invention consists, in combination with a suitable framework, of a longitudinally-arranged platform pivotally mounted at one end and means for raising said platform relative to the framework.

It also consists, in combination with a suitable conveyer, of a driving-wheel therefor comprising sections, means for supplying power to one of the sections of the wheel, and cushions for imparting motion from said section to the other section thereof.

It further consists in certain other novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 represents a view in side elevation of a portion of a conveyer embodying the features of the present invention. Fig. 2 represents a view in side elevation of the remaining portion thereof. Figs. 3 and 4 represent top plan views of the portions of the conveyer shown in Figs. 1 and 2, respectively. Fig. 5 represents an enlarged transverse sectional view taken on the plane of line 5 5 of Fig. 1, parts being shown in elevation. Fig. 6 represents an enlarged view, in side elevation, of the dis-

charge end of the conveyer, parts being broken away. Fig. 7 represents an enlarged detail view, in side elevation, of the power-transmitting pulley or wheel, parts being broken away. Fig. 8 represents an enlarged detail fragmentary view, in transverse section, on line 8 8 of Fig. 7. Fig. 9 represents an enlarged detail view, partially in section, of one of the guide-rail-supporting brackets. Fig. 10 represents an enlarged detail fragmentary sectional view through one of the balls and conveyer-bars. Fig. 11 represents a sectional view on the plane of line 11 11 of Fig. 10.

In the present art it has been found desirable to provide, in combination with a conveyer framework, means for guiding and retaining an article being conveyed, and during the transit I find that in the conveyance of easily-breakable articles it is desirable to provide means for preventing the same being jarred or roughly shaken, and in order to accomplish this, together with other beneficial results, I employ the elements disclosed in the accompanying drawings, in which—

1 1 represent the side frames of a conveyer-framework connected together by any suitable transverse bars 2, each of said side frames comprising upper and lower rails 3 and 4, connected by any suitable struts and at intervals by diagonal braces 5 and 6, spaced apart and connected together by a suitable web or cam-plate 7, formed with a segmental slot 8 for purposes hereinafter mentioned. Any number of the slotted webs may be employed and are arranged in pairs—that is, each web on one of the side frames 1 has a corresponding web arranged on the opposite side frame.

The conveying-belt consists of endless cables 9 9, traveling at each side of the framework and passing over pulleys 10 10, arranged at the receiving end of the conveyer and mounted upon a common shaft 11, extending across the framework and finding bearings in a suitable bearing-box 12 at each end, mounted to slide in suitable longitudinally-arranged guides 13 and provided with adjusting mechanism 14, of any preferred type, whereby the pulleys 10 may be moved bodily longitudinally of the framework for governing the tension of the conveyer-belt. Each of the pul-

leys 10 is grooved circumferentially on its periphery for the reception of its respective cable 9 and is provided with a series of notches 15, spaced apart on its periphery and adapted to receive metallic balls 16, arranged at intervals along the length of the respective cables 9, such balls being spaced apart a distance equal to the distance on the periphery of the respective pulleys 10 between the notches 15, so that each of the said pulleys acts as a sprocket. Extending transversely of the framework and connecting the respective cables 9 and spaced apart any suitable distance are conveyer cross-bars 17 17, which engage the respective cables 9 at a distance from the preceding and succeeding balls 16 thereof equal to the distance between two of said balls, the diameter of each of the bars 17 being approximately the same as that of one of the balls 16, whereby the projecting ends of said bars fit within the notches 15. By reference to Figs. 10 and 11 the manner of connecting the ends of the bars 17 to the cables 9 will be observed, which consists in overlapping the ends of the sections of cables 9 within a ball 16^a, passing a bolt 16^b through said ball and through the sections of cable and preferably filling the space within the ball with Babbitt metal, said ball 16^a being hollow. The end of the bar 17 is longitudinally notched at diametrically opposite points, as at 17^a, and the cables 9 passed through said notches, with the ball 16^a positioned within said bar 17, the bar 17 being hollow and of sufficient diameter for snugly inclosing the ball 16^a. Each of the balls 16 is constructed and secured to the respective cables 9 exactly similarly to the construction and attachment of balls 16^a, the only difference being that of diameter, the balls 16 being substantially of the same diameter as the bar 17.

The conveyer-belt of the present device consists of the cables 9 and cross-bars 17, and mounted between the carrier and return portion thereof within the framework is an adjustable platform 18, composed, preferably, of slats suitably secured together and extending throughout the length of the conveyer. Each side of the platform 18 is provided with a plurality of guiding-travelers 19, extending through the respective slots 8. The said platform 18 at the discharge end of the conveyer is hinged to a suitable segment 20, loosely carried by a rotatably-mounted shaft 21, such shaft also carrying pulleys 22, which are fixed thereto, one being spaced from each end of the segment 20, the pulleys 22 being constructed and operating exactly like pulleys 10. Near the receiving end of the conveyer is arranged a transversely-mounted rotary shaft 23, provided with a ratchet-wheel 24 at each end or only at one end, as may be desired, and a drum 25 at each end, a suitable detent 26 engaging the ratchet 24. A cable 27 extends upwardly from each drum

25 about a pulley 28 and along the conveyer a short distance and is fixed, as at 29, to the platform 18. A crank or other operating mechanism 30 engages the shaft 23 for purposes of rotation, whereby the cables 27 may be taken up or paid out, and as such cables are taken up the platform 18 is drawn forwardly and upwardly, so that its travelers 19 move in slots 8, guiding and steadying said platform, and the segment 20 swings upon the shaft 21, such segment being rotatably mounted thereon.

The shaft 21 projects through the side frames 1 and is formed with a bearing in each of said side frames, which is composed of a plate 31, secured to supporting-bars 32 32 and carrying a ring 33 upon each side thereof and each formed with an internal concave surface 34, registering with a suitable aperture formed in the plate 31, whereby a partially-spherical bearing is provided for a ball 35, which ball is bored for the reception of the journal of shaft 21. The ball 35 may be provided with circumferential grooves 36 36 for reducing the weight of the same or may be made solid, as desired. By this arrangement it will be observed that with a thin plate connected to one of the side frames a comparatively wide bearing may be formed and the shaft 21 may be rotated within the balls 35 without excessive wear, whereby a minimum of weight is necessitated, and yet sufficient strength is obtained for all practical purposes. On each of the projecting ends of shaft 21 is mounted a gear-wheel 37, meshing with a pinion 38, the pinion 38 being mounted upon the projecting ends of a shaft 39, arranged transversely of the framework and extending beyond the side frames in a parallel plane to the shaft 21, a driving-drum 40 being mounted centrally upon the shaft 38 and receiving power through any suitable belting 41 from a pulley carried by a counter-shaft 42, suitably arranged in the framework, said shaft in operation receiving its power from a suitably-arranged dynamo 43, also mounted in the framework. Of course other power-supply means may be employed without departing in the least from the present invention.

During the travel of the bars 17 throughout the length of the framework the cables 9 ordinarily might sag sufficiently for permitting such bars to drop out of operative position, and to overcome this difficulty I provide longitudinal rails, preferably angle-bars 44, extending beneath the plane of travel of the ends of said bars 17, whereby if the cables sag and the bars are permitted to drop they will be limited against contact with platform 18 and held against too great lowering and will have their ends supported by the said bars 44.

Arranged at suitable intervals on each of the rails 3 are inwardly-projecting brackets 45 45, the outer end of each of said brackets being bored transversely, as at 45', for receiving

ing and retaining bolt 46, as best seen in Fig. 9, said bolt passing through the end of the bracket and being threaded at its upper end into a retaining-nut 47. The nut 47 is ordinarily provided with an operating-handle 48 for facilitating its rotation. Although I have illustrated a threaded bolt with the nut 47 threaded onto the same, it will of course be seen that a cam may be substituted for the nut 47 as may be desired. The under portion of the outer end of bracket 45 is serrated, as at 49, for engaging serrations 50 in a plate 51, secured onto the respective rail 3. The said serrations normally lock the brackets 45 against lateral movement; but a spring 52 is mounted within the bore 45' and coiled about the bolt 46, with its lower end resting upon plate 51 and its upper end engaging an annular shoulder 53, partially closing said bore, whereby a tendency is given to the bracket 45 to lift for releasing the engagement of serrations 49 and 50. The nut 47 normally prevents such disengagement; but when desired said nut may be rotated by means of handle 48 and the bracket 45 thereby be left free to swing laterally. The inner end of bracket 45 is apertured suitably for receiving a pintle 54, carried by a guard-rail 55, extending throughout the length of the respective side frame 1 and serving in operation to prevent lateral displacement of the articles being conveyed.

I have disclosed two driving-gears 37, which two are employed for evenness of movement; but of course a single gear may be employed without deviation from the invention. Each of the gears 37 is composed of an inner section 37^a and an outer section 37^b. The inner section consists of a suitable ring carried by spokes or a web fixed to shaft 21, and the said ring is provided at intervals with radially-projecting lugs 37^c 37^c. The outer section 37^b consists of a ring surrounding the section 37^a and provided on its outer surface with gear-teeth 37^d, which mesh with the respective pinion 38. Extending inwardly from the inner surface of the section 37^b are suitable lugs 37^e 37^e, spaced apart approximately the same distance as the distance between the lugs 37^c. The lugs 37^c project beyond the plane of the lugs 37^e, so that said lugs overlap, and a spring 37^f or other suitable cushion is interposed between each of the lugs 37^e and 37^c in the direction of movement of the shaft 21, as indicated by the direction of the arrow in Fig. 7. During operation the pinions 38, meshing with the teeth 37^d, rotate the section 37^b, whereby the springs or cushions 37^f are pressed against the lugs 37^c and drive forward the inner section 37^a, and with it the shaft 21, whereby the pulleys 22 are rotated for driving the carrier-belt. Of course means must be provided for preventing lateral displacement of the section 37^b relative to section 37^a, and in order to keep said sections in line I secure a flange 37^g onto or formed integral with each side of the

ring of section 37^a, such flanges extending beyond annular shoulders 37^h 37^h on the section 37^b, a housing being thus formed for the springs or cushions 37^f.

A discharge-platform 56 is supported at the discharge end of the conveyer by a transversely-mounted rod 57, extending through bearings 58, formed on the side frames 1, said rod being bent and having its ends projecting in parallel planes parallel to the conveyer. A suitable weight 59 is adjustably mounted on each end of said rod 57, and the rod being fixed to the platform 56 is designed to support the same in any given or desired angle by an adjustment of the weights 59 longitudinally of the parallel portions of said rod 57.

In operation the carrier-belt is driven as described and the articles to be conveyed are placed on the platform 18, which platform has previously been positioned at the desired distance vertically from the cross-bars 17, so that such cross-bars engage the articles on the said platform and convey them to the discharge end of the conveyer. If comparatively wide packages are being conveyed, the brackets 45 are swung outwardly for moving the guide-rails 55 as far apart as may be desired, and if comparatively narrow packages are being conveyed the said brackets are swung inwardly, so that the guide-rails 55 are brought sufficiently close together for preventing the lateral displacement of such packages. As the package to be conveyed is deposited on the platform 18 one of the cross-bars 17 approaches and comes in contact with the same with necessarily more or less of a jar; but such contact is cushioned by the action of the springs 37^f, such springs giving for any sudden retardation in the movement of the conveyer-belt and preventing any pronounced shocks being given to the packages being conveyed, whereby even the most delicate articles may be transferred by my improved conveyer without danger of breaking. Upon reaching the discharge end of the conveyer the package is automatically deposited from the platform 18 onto the platform 56, which is poised in air, being balanced in the position desired by means of weights 59, and upon receiving a package from the conveyer automatically lowers into contact with any support beneath it in position for the discharge of the package which has just been delivered. The weights 59 are usually positioned for resisting a given amount of pressure on the platform 56, whereby when a package is deposited thereon it is gently lowered without danger of injury.

Although I have set forth in detail the particular features of a complete operative structure, yet it will be understood that I may deviate therefrom with respect to size, shape, and minor elements without departing in the least from the spirit and scope of the present invention.

I am not claiming under the present application the specific construction of cushioned driving-gear and the particular bearing disclosed, but propose to reserve the same as the subject-matter of separate and independent applications, the right of divisional application being hereby expressly reserved.

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

1. In a conveyer, the combination with a framework and conveyer means, of a pivotally-mounted platform within said framework, and a cam for guiding the platform in its pivotal movement.

2. In a conveyer, the combination with a suitable framework and conveyer means, of a pivotally-mounted platform extending longitudinally of said framework, and a cam at each side thereof for guiding the platform in its pivotal movement.

3. In a conveyer, the combination with a suitable framework and conveyer means, of a pivotally-mounted platform extending longitudinally of the framework within the same, a slotted cam-plate at each side of said framework, and travelers extending from said platform into the slots of said plates.

4. In a conveyer, the combination with a suitable framework and conveyer means, of a rotatably-mounted support, a platform extending longitudinally of said framework and pivotally connected at one end to said support.

5. In a conveyer, the combination with a suitable framework and carrier means, of a rotatably-mounted segment, and a platform connected thereto.

6. In a conveyer, the combination with a suitable framework and conveyer means, of a rotatably-mounted segment, and a platform pivotally connected thereto and extending longitudinally of the framework.

7. In a conveyer, the combination with a suitable framework and carrier means, of a pivotally-mounted platform extending longitudinally of the same, a guiding-cam for said platform and means for supporting said platform at various points of adjustment along the length of said cam.

8. In a conveyer, the combination with a suitable framework, constructed of side frames and a conveying means, of a pivotally-mounted platform arranged between said side frames and extending longitudinally thereof.

9. In a conveyer, the combination with a framework having side frames and carrier means, of a pivotally-mounted platform extending throughout the length of the framework between said side frames, and adjustable on its pivot relative to said carrier means.

10. In a conveyer, the combination with a suitable framework and carrier means, of a vertically-movable pivotally-mounted platform extending longitudinally of the framework.

11. In a conveyer, the combination with a suitable framework and conveyer means, of a segment rotatably mounted at one end thereof, and a platform pivoted to said segment.

12. In a conveyer, the combination with a suitable framework and conveyer means, of a segment rotatably mounted near one end thereof, and a platform pivoted at one end to said segment.

13. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a segment rotatably mounted near one end of the framework, a platform connected with the said segment, and means for adjusting said platform laterally.

14. In a mechanism of the class described, the combination of a suitable framework and conveyer means, of a rotatably-mounted segment, a platform connected with said segment, and supported thereby, and means for adjusting said platform toward and away from the longitudinal axis of said framework.

15. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a segment rotatably mounted near one end of said framework, a platform connected to and supported by said segment and extending longitudinally of the framework, and means at the end of said platform for supporting the same.

16. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a platform pivotally mounted within the framework, and means adjustably supporting said platform relative to the said conveying means.

17. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a platform arranged within the framework and pivotally mounted at one end, and means adjustably supporting the free end of said platform.

18. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a pivotally-mounted platform, and means for guiding the platform in its pivotal movement.

19. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a pivotally-mounted platform, means for moving said platform on its pivot, and means guiding the same in its movement.

20. In a mechanism of the class described, the combination with a suitable framework formed with slots and conveying means, of a platform arranged in the framework, means for adjusting said platform within the framework, and guiding means therefor projecting through said slots.

21. In a mechanism of the class described, the combination with a suitable framework provided with a slot and carrier means, of a platform extending longitudinally of the framework, means for adjusting the platform

relative to the carrier means, and a device carried by the platform extending through said slot for guiding the platform in its movement.

22. In a mechanism of the class described, the combination with a suitable framework, formed with segmental slots, of a suitably-supported platform, means for adjusting the platform, and guiding means therefor extending through said slots.

23. In a mechanism of the class described, the combination with a suitable framework and carrier means therefor, of webs connected to said framework and formed with slots, a suitably-supported platform, means for adjusting said platform relative to the carrier means, and guiding devices carried by said platform engaging said slots.

24. In a mechanism of the class described, the combination with a suitable framework and carrier means, of a pivotally-mounted platform, means for swinging said platform upon its pivot, and guiding means carried by the platform and engaging portions of said framework.

25. In a mechanism of the class described, the combination with a suitable framework and carrier means, of a platform pivotally mounted and adjustable therein toward and away from the longitudinal axis of said framework, guiding-slots being formed in the said framework, means carried by said platform engaging said slots, and means for moving said platform laterally.

26. In a mechanism of the class described, the combination with a suitable framework and carrier means, of a pivotally-mounted platform movable toward and away from the longitudinal axis of said framework, means for adjusting the same laterally to various positions, and means for supporting the same in its adjusted positions.

27. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a rotatably-mounted segment, a platform engaging the same, and a cable for adjusting the platform.

28. In a mechanism of the class described, the combination with a suitable framework and carrier means, of a segment rotatably mounted near one end of said framework, a platform pivotally connected to said segment, a pulley mounted in said framework, a cable engaging said platform passed about said pulley, a drum engaged by said cable, and means for rotating said drum.

29. In a mechanism of the class described, the combination with a suitable framework and pulleys arranged therein, of a carrier-belt mounted on said pulleys comprising sections of a cable having their ends overlapped, a ball inclosing said overlapping ends, and means carried by the ball engaging said sections of cable.

30. In a mechanism of the class described, the combination with a suitable framework and pulleys, of a carrier-belt mounted thereon and comprising a cable formed of overlapping sections, a ball inclosing the overlapping ends of said sections, and a bolt passed through said ball and sections of the cable.

31. In a mechanism of the class described, the combination with a suitable framework and pulleys mounted thereon, of a carrier-belt supported thereby and comprising a plurality of cables, balls secured to said cables, and a cross-bar inclosing said pulleys and connecting said cables.

32. In a mechanism of the class described, the combination of a suitable framework and pulleys, of a carrier-belt mounted on said pulleys and comprising cables, a ball fixed to each of said cables, and a transverse bar formed with longitudinal notches at its ends through which the respective cables pass, the said ends inclosing the respective balls.

33. In a conveyer, the combination with a suitable framework, of a conveyer-belt mounted thereon, and cushion means for driving said belt.

34. In a conveyer, the combination with a suitable framework, of a carrier-belt mounted thereon provided with cross-bars, and cushion means for driving said belt.

35. In a mechanism of the class described, the combination with a suitable framework and pulleys arranged therein, of a carrier-belt mounted on said pulleys comprising sections of a cable having their ends overlapped, means preventing separation of said overlapping ends, and a ball inclosing the overlapping ends.

36. In a mechanism of the class described, the combination with a suitable framework and pulleys arranged therein, of a carrier-belt mounted on said pulleys comprising cables spaced apart, each formed of sections having their ends brought in contact with each other, means securing said ends together, and a cross-bar connecting said cables and inclosing said contacting ends.

37. In a mechanism of the class described, the combination with a suitable framework and pulleys mounted thereon having notches in their peripheries, of a carrier-belt supported by said pulleys and comprising a plurality of cables, each of said cables being formed of sections having contacting ends, means securing said ends together, and cross-bars connecting said cables and inclosing said ends and adapted to fit within the notches of said pulleys.

38. In a mechanism of the class described, the combination with a suitable framework and conveyer means therefor, of guard-rails arranged above and extending longitudinally of said framework, and means for adjusting said guard-rails longitudinally.

39. In a mechanism of the class described,

the combination with a suitable framework and conveyer means therefor, of guard-rails carried by said framework, and pivotally-mounted brackets supporting said rails.

5 40. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of guard-rails, and brackets pivotally mounted and pivotally supporting said rails.

10 41. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of pivotally-mounted brackets, means for locking said brackets against pivotal movement, and guard-rails
15 carried by the brackets.

42. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of brackets pivotally carried thereby, means normally limiting said
20 brackets against pivotal movement, means for releasing said limiting means, and guard-rails carried by said brackets.

43. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of brackets supported
25 by said framework and formed with serrations normally engaging the supports of said brackets for locking the same against pivotal movement, means for releasing said brackets
30 for permitting pivotal movement thereof, and guard-rails carried by said brackets.

44. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of brackets carried by
35 the framework, a spring engaging each of said brackets for normally lifting the same from contact with its support, means for retaining said bracket in contact with its support, and guard-rails carried by said brackets.

40 45. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of brackets supported by said framework, each being formed with a suitable bore, a spring within said bore for lift-
45 ing its respective bracket from contact with its support, means for maintaining such contact, and guard-rails carried by said brackets.

46. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of brackets carried by
50 said support, a bolt passed through each of said brackets and engaging the support thereof, means normally tending to lift each of said brackets from contact with its support,
55 a device for retaining the same in such contact, and guard-rails carried by said brackets.

47. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of brackets carried by
60 said framework and pivotally mounted at their outer ends and apertured at their inner ends, guard-rails, and pintles carried thereby projecting through the apertures of said brackets.

48. In a mechanism of the class described, the combination with a suitable framework
65 and conveyer-belt, of brackets carried by said framework, a bolt for each of said brackets passed through a portion of the framework and its respective bracket whereby the bracket is pivotally retained in position, means for
70 raising said bracket out of contact with its support, a nut on each of said bolts engaging its respective bracket for preventing such disengagement, and guard-rails carried by said brackets.

49. In a mechanism of the class described, the combination with a suitable framework and a conveyer means, of a pivotally-mounted receiver-platform and counterbalanced
75 means therefor.

50. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a platform pivotally
80 mounted at the discharge end of the framework, and counterbalanced means for said platform.

51. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a platform and rotatably-mounted rod fixed to said platform and
90 bent to extend parallel to the framework, and counterbalanced means on said rod.

52. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a receiver-platform,
95 a rotatably-mounted rod fixed thereto, and an adjustable counterbalanced weight carried by said rod.

53. In a mechanism of the class described, the combination with a suitable framework
100 and conveyer means, of a segment mounted in the framework, and an adjustable platform connected with said segment.

54. In a mechanism of the class described, the combination with a suitable framework
105 and conveyer means, of a vertically-swinging segment, and a platform pivotally connected thereto.

55. In a mechanism of the class described, the combination with a suitable framework and
110 conveyer means, of a vertically-swinging segment, a platform connected with said segment and movable toward and away from the longitudinal axis of said framework, and means for moving said platform.

56. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a pivotally-mounted platform adjustable within said framework and
115 means at the respective edges of said platform toward and away from the longitudinal axis of said framework for guiding the same in its adjustment.

57. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a pivotally-mounted platform, and means for moving said platform
120 toward and away from the longitudinal axis of

said framework and in a direction opposite the movement of the conveying means.

58. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a pivotally-mounted platform designed when swung upon its pivot to move both longitudinally and toward and away from the longitudinal axis of said framework, and means for guiding the movement of said platform.

59. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a pivotally-mounted platform designed when swung upon its pivot to move both longitudinally and toward and away from the longitudinal axis of said framework.

60. In a conveyer, the combination with a suitable framework and conveyer means, of a pivotally-mounted platform designed when swung upon its pivot to move both longitudinally and toward and away from the longitudinal axis of said framework, slots being formed in the framework in the direction of movement of said platform, and means engaging said slots for guiding the platform in its movement.

61. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a pivotally-mounted platform adapted when swung upon its pivot to move both longitudinally and toward and away from the longitudinal axis of said framework, segmental slots being formed in the framework, and means engaging said slots for guiding said platform in its movement.

62. In a mechanism of the class described, the combination with a suitable framework and pulleys, of a carrier-belt mounted thereon and comprising a cable formed of overlapping sections, a housing inclosing the overlapping ends of said sections, and securing means carried by said housing and engaging said sections.

63. In a mechanism of the class described, the combination with a suitable framework and pulleys, of a carrier-belt mounted thereon and comprising a cable formed of overlapping sections, a housing inclosing the ends of said sections, and securing means passed through said housing and sections.

64. In a mechanism of the class described, the combination with a suitable framework and notched pulleys, of a carrier-belt mounted thereon and comprising a cable formed of sections, a housing inclosing a portion thereof, and means securing said sections together and to the housing.

65. In a mechanism of the class described, the combination with a suitable framework and a notched pulley mounted at each end thereof, of a cable carried by said pulleys and formed of a plurality of overlapping sections, a plurality of housings inclosing said sections and

spaced apart a distance equal to the distance between the notches of said pulleys, means securing said sections of cable together and securing the housings to the cable.

66. In a mechanism of the class described, the combination with a framework, of a belt mounted therein, carriers spaced apart on said belt, cushioned means for driving the belt, and a support for articles to be conveyed spaced beneath the plane of movement of said carriers.

67. In a mechanism of the class described, the combination with a framework, of a carrier-belt arranged therein comprising cables and cross-bars spaced apart longitudinally of the cables, means for driving said belt, and means for cushioning the impact of said cross-bars against an article to be conveyed.

68. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of guard-rails, and brackets mounted pivotally at one end and at the other pivotally supporting said rails.

69. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a guard-rail and pivotal supports therefor capable of lateral adjustment.

70. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a platform, a rotatably-mounted rod fixed to and supporting said platform, the ends of said rod extending in parallel planes, and a counterbalanced means carried by said ends.

71. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a platform arranged at the end of said framework, a rotatably-mounted rod fixed to said platform and supporting the same extending across the end of the said framework and having its ends bent and extending longitudinally of the framework, and counterbalanced means on said ends.

72. In a mechanism of the class described, the combination with a suitable framework and carrier means, of a platform movable outside the vertical plane of the conveyer means, and counterbalanced means therefor.

73. In a portable conveyer, the combination with a suitable framework and conveyer means, of a platform pivotally supported for movement parallel to the movement of the conveyer.

74. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a swinging segment, and a platform connected thereto.

75. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a guard-rail, and a pivotally-mounted swinging support therefor.

76. In a mechanism of the class described, the combination with a suitable framework and conveyer means, of a guard-rail, a pivotally-mounted swinging support, and means for
5 locking said support against movement.

77. In a conveyer, the combination with a framework and carrier means, of a pivotally-mounted platform extending longitudinally of said framework, said platform being free to

move toward and away from the longitudinal axis of said framework.

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

WILLIAM L. McCABE.

Witnesses:

RICHARD SAXE JONES,
J. TRACY SMITH.