No. 813,315. PATENTED FEB. 20, 1906.

A. MOSEBACH.

CANDY MACHINE.

APPLICATION FILED MAY 13, 1905.

4 SHEETS—SHEET 1.

FIG. 1.

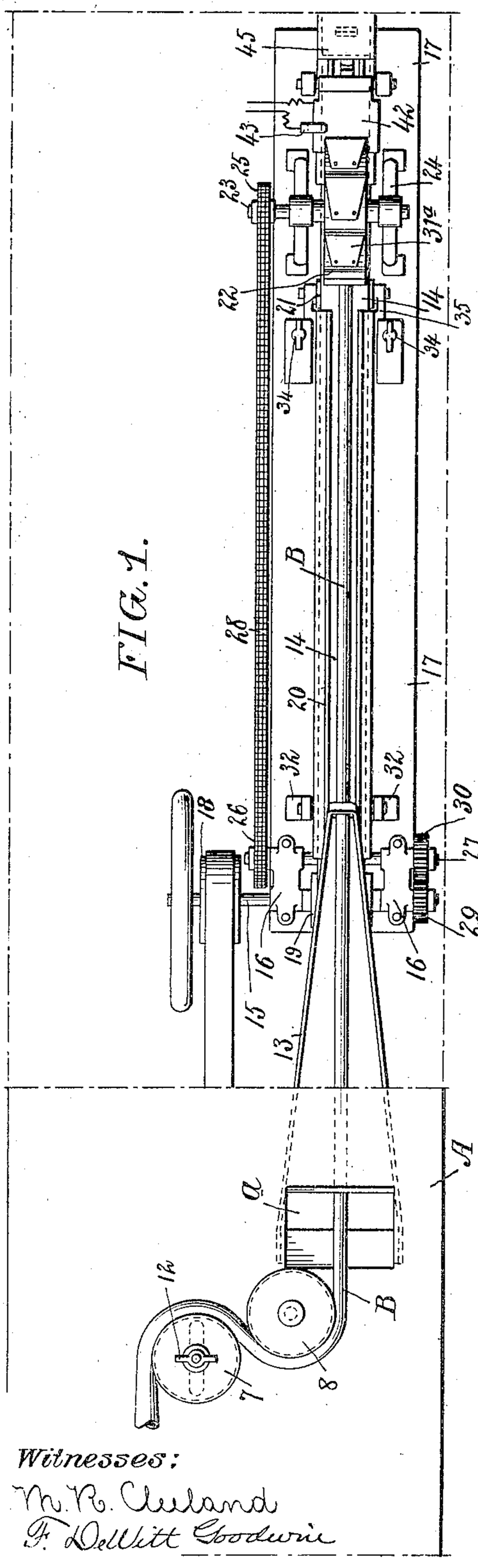
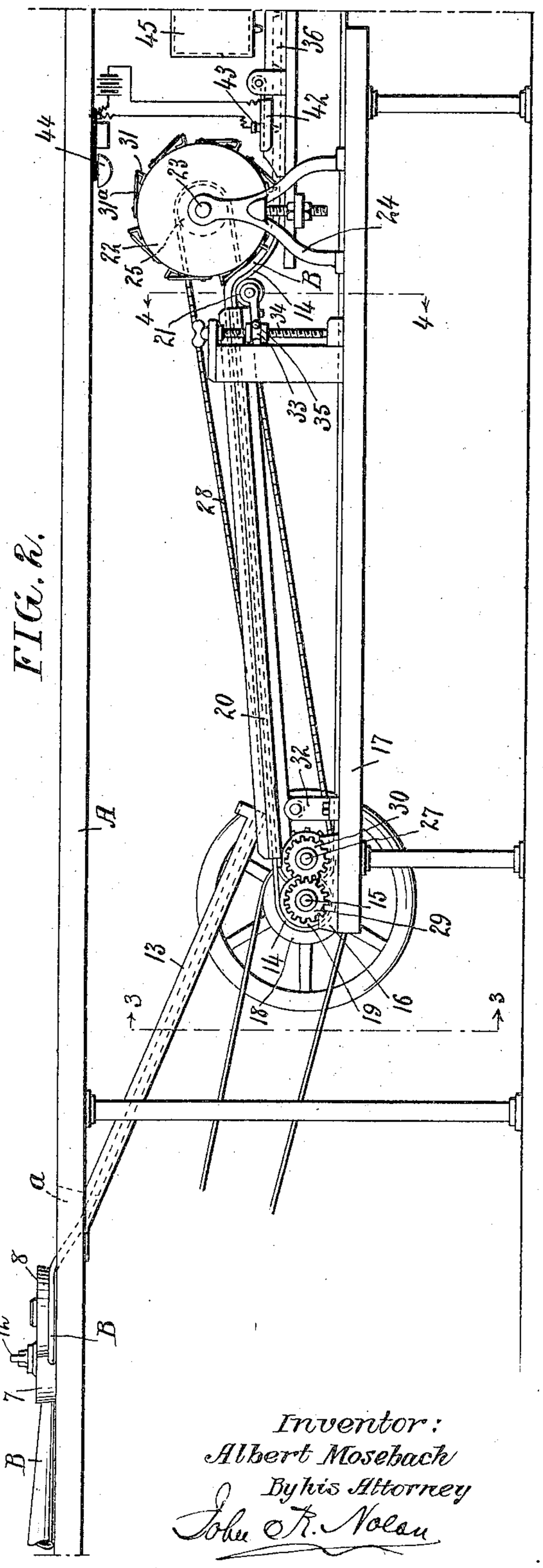


FIG. 2.



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John R. Nolan

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4 SHEETS—SHEET 2.

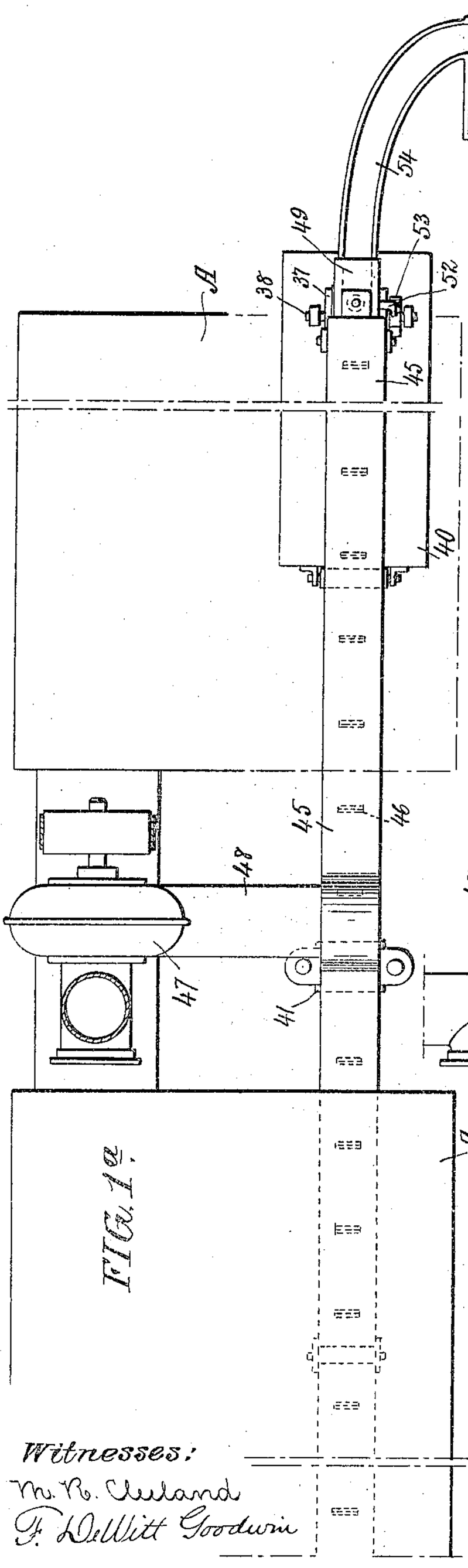

FIG. 1a.

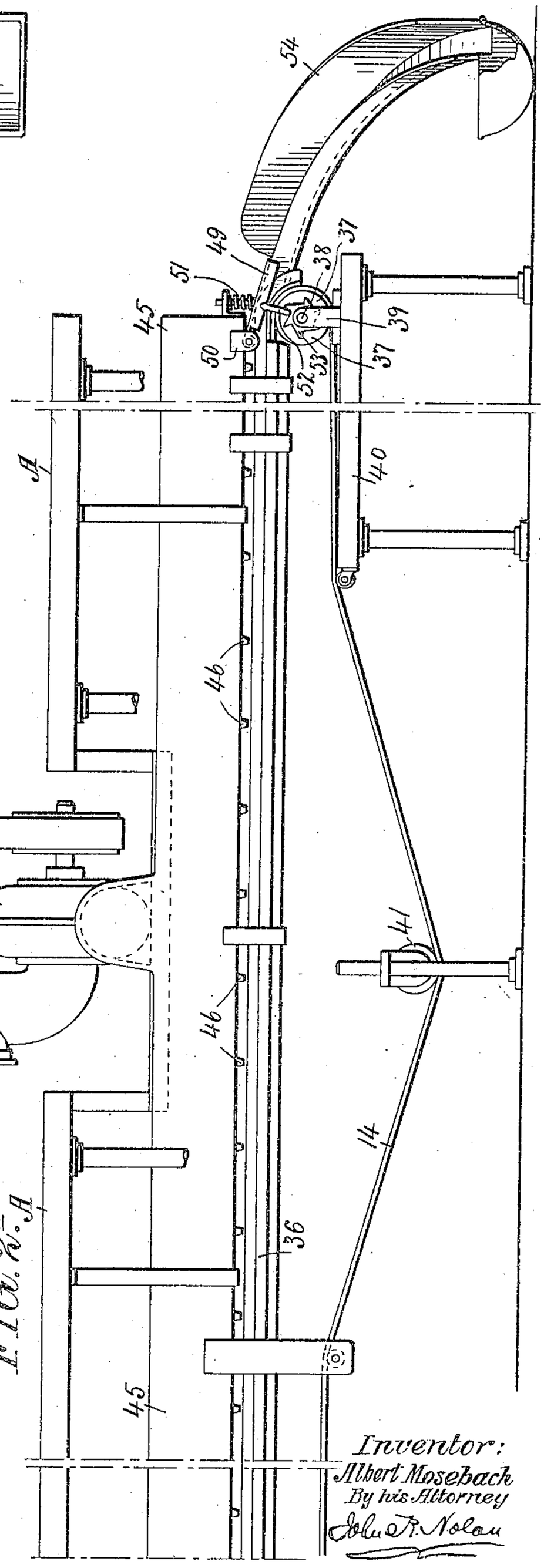

FIG. 2a.

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4 SHEETS—SHEET 3.

FIG. 3.

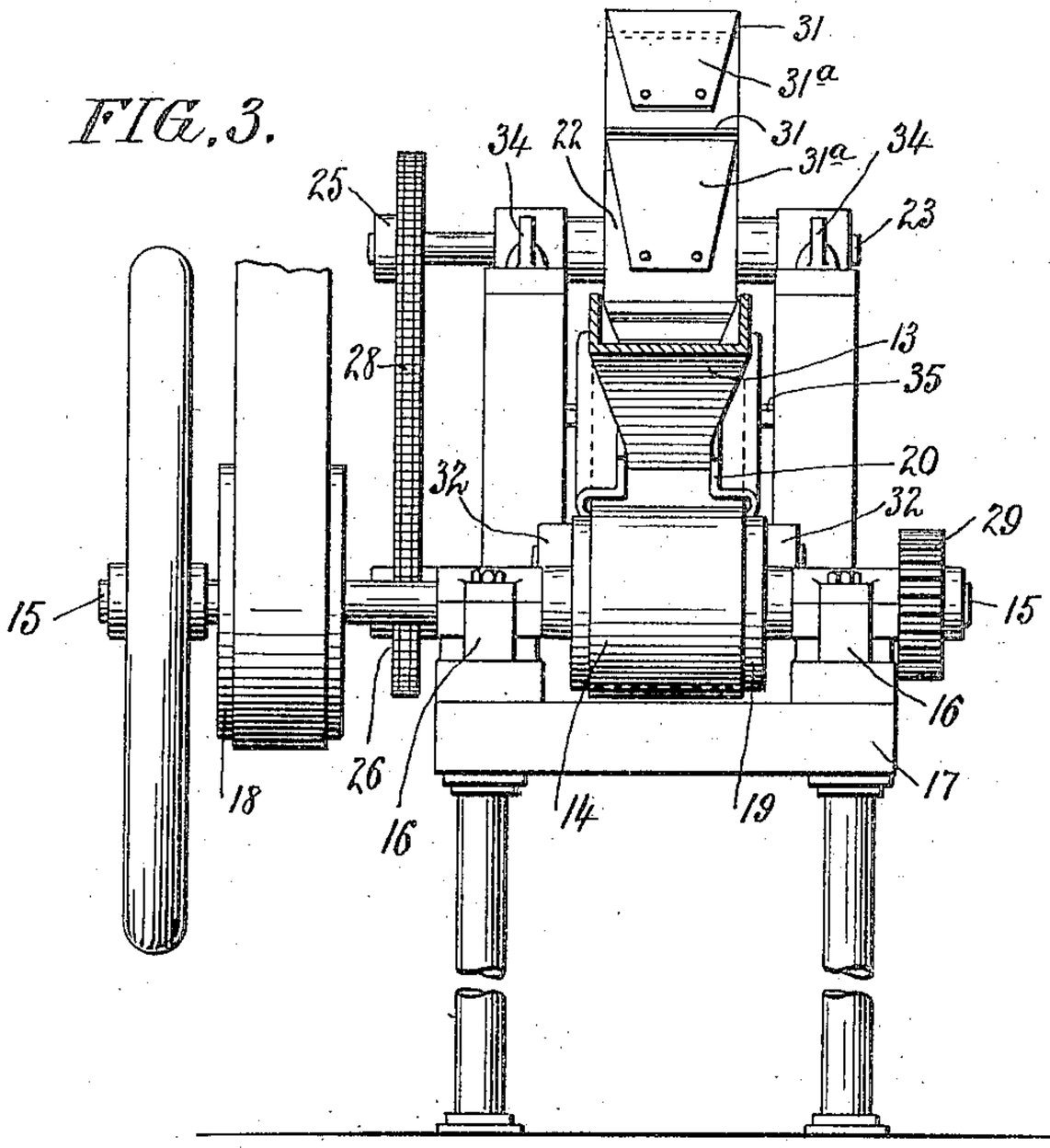


FIG. 5.

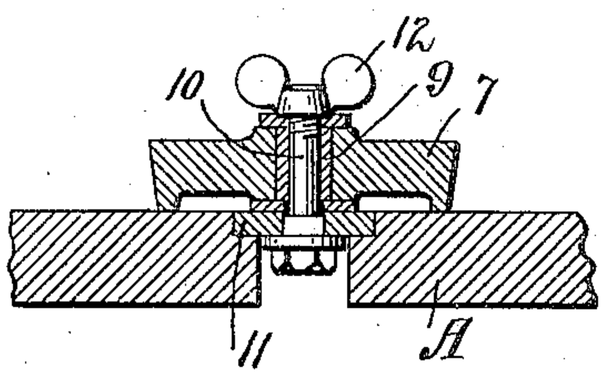
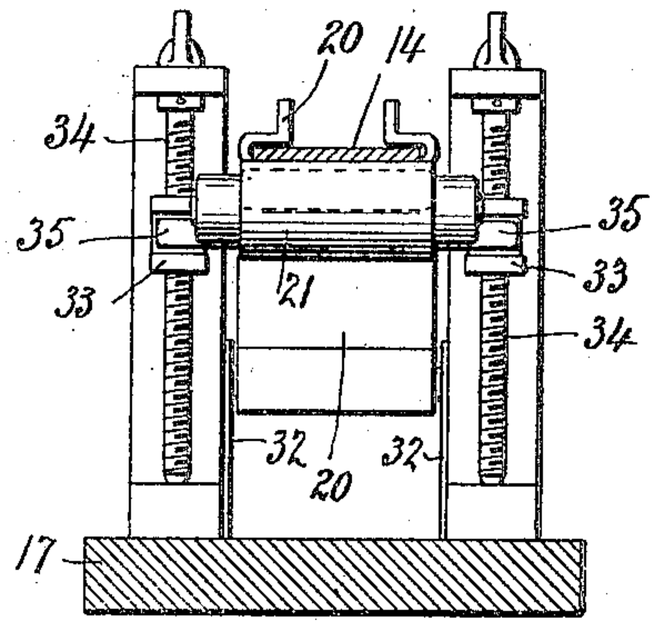


FIG. 4.



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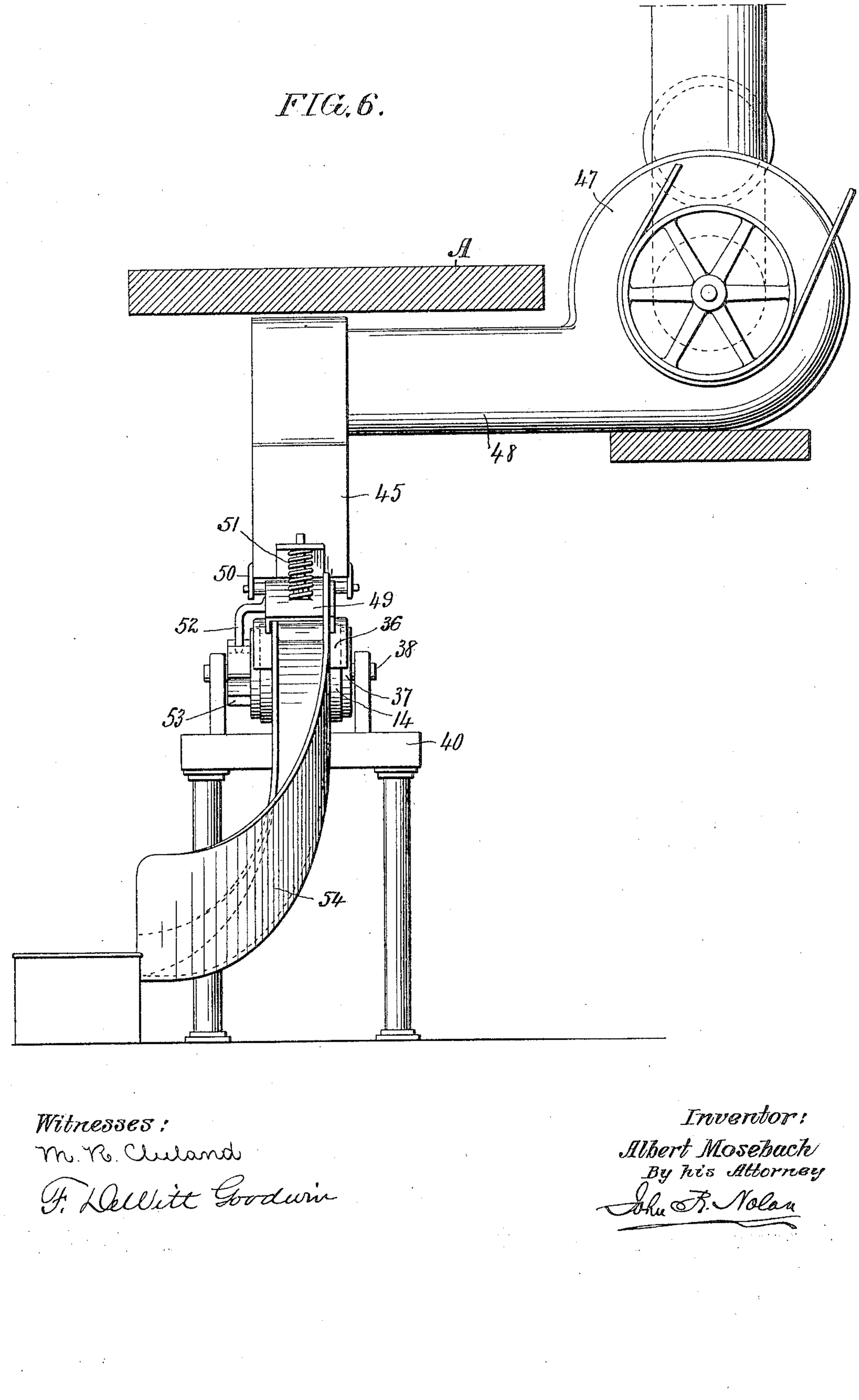
4 SHEETS—SHEET 4.

FIG. 6.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALBERT MOSEBACH, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF, HENRY MOSEBACH, SR., AND HENRY MOSEBACH, JR., CO-PARTNERS, TRADING AS H. MOSEBACH & SONS, OF PHILADELPHIA, PENNSYLVANIA.

CANDY-MACHINE.

No. 813,315. Specification of Letters Patent. Patented Feb. 20, 1906.

Application filed May 13, 1905. Serial No. 260,279.

To all whom it may concern:

Be it known that I, ALBERT MOSEBACH, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Candy-Machines, of which the following is a specification.

This invention relates to novel apparatus for expeditiously forming and feeding continuous strips or bars of candy and progressively dividing the same into predetermined lengths or sections to produce, for example, so-called "candy straws."

In the present embodiment of my invention the mass of plastic candy, pulled or otherwise formed into a strip of predetermined shape in cross-section, is fed upon an endless traveling carrier and thereby transported to and past a mechanism by means of which the strip is indented at intervals, thence through an extended path, wherein the indented bar is subjected progressively to currents of air and thereby gradually cooled and rendered brittle, thence to mechanism whereby the bar is broken into lengths or sections at the indented points.

The invention also comprises various novel features of construction and organizations of parts to insure reliability and efficiency of operation, as will be hereinafter set forth and claimed.

In the drawings, Figure 1 and Fig. 1ª, considered together, are a plan of an apparatus embodying my invention, only a part of the table being shown. Fig. 2 and Fig. 2ª are a side elevation thereof. Fig. 3 is a transverse vertical section, enlarged, as on the line 3 3 of Fig. 2. Fig. 4 is a sectional detail showing the means for adjusting the carrier as on the line 4 4 of Fig. 2. Fig. 5 is a sectional detail of an adjustable guide-wheel on the table. Fig. 6 is a view, enlarged, of the rear or discharging end of the apparatus.

A designates a long table at or near one end of which warm plastic candy is placed and manipulated preparatory to its being directed in the form of a strip or bar B into and through an opening *a* in the table. Mounted on the table adjacent this opening are two horizontally-disposed guide-wheels 7 8, around and between which the strip or bar of candy is passed and thereby guided to the opening. One of these wheels is preferably adjustable in respect to the other, so that the tension or friction exerted by the wheels upon the candy bar may be varied as the cross-section and the consistency of the bar may require. To this end such wheel is loosely mounted on a sleeve 9, which is carried by an axial stud 10, that extends through a slotted plate 11 on the table. The lower end of the stud below the plate is headed, and the upper end above the plate is provided with a set-nut 12. By properly turning this nut the stud may be released, and the sleeve thereon, with its wheel, may then be adjusted along the slot and secured at the desired position of adjustment. Converging from the opening *a* in the table is a downwardly-inclined chute 13, on which the strip or bar of candy descends to and upon an endless traveling carrier 14, by means of which the strip is transported to the opposite end of the apparatus. Below the lower end of the chute is a driving-shaft 15, which has its bearings in brackets 16 on a suitable supporting-frame 17. This shaft is equipped with a pulley 18, which is driven from a suitable source of power. It is also provided with a wheel or pulley 19, upon which is passed and thereby driven the endless carrier. This carrier as it leaves the pulley 19 passes into and through the interior of a guide-trough 20, at the opposite end of which is preferably a roller 21 for the support and guidance of the carrier. Just beyond this end of the trough is an indenting or scoring wheel 22, which extends below the pulley, and under and against which wheel the carrier passes as it leaves the roller 21. The wheel 22 is carried by a shaft 23, journaled in uprights 24, rising from the frame 17. On one end of the shaft 23 is a sprocket-wheel 25, which is geared with and driven from a wheel 26 on a shaft 27 by means of a chain 28, said latter shaft being actuated from the main shaft by gear-wheels 29 30, respectively. The gearing is timed to rotate the indenting-wheel at the same speed as the endless carrier and the strip tor bar of candy thereon.

The indenting-wheel preferably comprises

a circular body having at regular intervals on its periphery radial blades 31, which during the rotation of the wheel progressively enter and indent (but do not sever) the traveling bar of candy. In order to prevent the adherence of such bar to the wheel, there is secured to the latter adjacent each blade one end of a spring member 31[a], the other or free end of which extends to or near the outer end of the blade. When the blade during its travel penetrates the candy, this spring member yields toward the wheel; but as the blade and candy pass onward such member resumes its normal position, and thus insures the stripping of the candy from the blade.

In order to regulate the space between the candy and the indenting-wheel as the thickness of the bar and the depth of the indentation may require, the roller 21 is made adjustable vertically, and in order, further, that the proper relation of the roller to the trough 20 and to the portion of the carrier guided on the latter will be maintained the trough is adjustable correspondingly with the roller. As a simple and efficient means for this purpose the end of the trough adjacent the chute is pivoted between a pair of brackets 32, rising from the frame 17, and the opposite end of the trough is supported by nuts 33 on vertical adjusting-screws 34, mounted in posts on the frame. These nuts are peripherally grooved for the reception of arms 35, extending from the bearings of the roller-shaft at the end of the trough. Hence if the screws be properly turned the nuts thereon and the end of the trough connected with such nuts will be correspondingly raised or lowered, as desired.

As the carrier leaves the indenting-wheel the carrier passes upon a long supporting trackway or trough 36, at the extreme end of which is a return-pulley 37 for the carrier. This pulley is carried by a shaft 38, journaled in brackets 39, rising from a supporting-frame 40. The lower or return portion of the carrier is guided by suitably-disposed rollers, one of which (indicated at 41) is preferably a movable tightener-roller to keep the belt taut.

Overhanging the end of the trough 36 adjacent the indenting-wheel is a vertically-movable plate 42, under which the indented strip passes as it leaves said wheel. This plate in the present instance is composed of metal, and it is pivoted between a pair of lugs on the respective sides of the trough. Immediately above the plate and normally out of contact therewith is a contact-piece 43, which constitutes a terminal for an electric circuit in which the plate is included. This circuit also includes a bell or sounder 44. So long as the candy bar is issuing freely from the indenting-wheel the plate 42 maintains its normal position, and the electric circuit is therefore broken; but in the event of the candy buckling or clogging on the carrier at or beyond the wheel the plate is raised thereby to contact with the piece 43, thus completing the circuit and sounding an alarm.

Directly above the carrier and parallel therewith is a long air-trunk 45, on the under side of which at intervals are thin air-nipples 46, by means of which fine currents of air are steadily directed upon the underlying traveling strip in a manner gradually to cool the latter, and thus render it hard and brittle. Air is supplied to the trunk by means of a power-driven fan or pump 47, which is connected therewith by a pipe 48.

Overhanging the carrier where it passes around the return-pulley 37 is a vibratory plate 49, which is constructed and arranged to contact at intervals with the underlying traveling strip of candy, and thus break the latter at the indented points into lengths or sections. This plate in the present instance is pivoted at one end between a pair of lugs 50 on the air-trunk and is normally pressed at its free end into the path of the indented strip by means of a suitably-disposed spring 51. On one edge of the plate 49 is a tappet-arm 52, which engages a cam or star wheel 53 on the shaft of the pulley 37, whereby during the rotation of said shaft the wheel 53, in conjunction with the opposed action of the spring, effects a rapid vibration or jarring of the plate, with the result mentioned. The sections of candy thus successively broken from the strip fall into an underlying chute 54 and are thereby directed to a suitable receptacle.

I claim—

1. In a candy-machine, the combination with a feed-table, of an endless carrier, a chute leading from said table to the carrier, means for driving said carrier, a revoluble indenting-wheel adjacent the path of said carrier, means for actuating said wheel at the same rate of speed as the carrier, whereby the material upon the carrier is indented at intervals during its traverse, means for cooling the indented material, and means for breaking said material at the indented portions.

2. In a candy-machine, the combination of an endless carrier, a trough or guide therefor, an indenting-wheel beneath which said carrier passes, and by which wheel the material upon the carrier is indented, means for vertically adjusting said trough or guide, means for cooling the indented material, and means for breaking said material at the indented portions.

3. In a candy-machine, the combination of an endless carrier, a trough or guide therefor pivoted at one end, means for vertically adjusting said trough or guide, at its opposite end, an indenting-wheel beneath which the carrier passes and by which wheel the material upon the carrier is indented, means for

cooling the indented material, and means for breaking said material at the indented portions.

4. In a candy-machine, the combination of an endless carrier, an indenting-wheel beneath which said carrier passes and by which wheel the material upon the carrier is indented, a guide-roller for said carrier adjacent the indenting-wheel, means for vertically adjusting said roller, means for cooling the indented material, and means for breaking said material at the indented portions.

5. In a candy-machine, the combination of an endless carrier, a trough or guide therefor, a roller on said trough or guide, an indenting-wheel beneath which said carrier passes, and by which wheel the material upon the carrier is indented, means for vertically adjusting said trough or guide and its said roller, means for cooling the indented material, and means for breaking said material at the indented portions.

6. In a candy-machine, the combination of a carrier for receiving and transporting the strip of material to be treated, and means adjacent the path of said strip adapted to be acted upon thereby to sound an alarm when such material buckles or clogs on the carrier.

7. In a candy-machine, the combination of a carrier for receiving and transporting the strip of material to be treated, mechanism for indenting the strip during its traverse, and means adjacent said mechanism for sounding an alarm should the material become buckled or clogged on the carrier.

8. In a candy-machine, the combination of an endless carrier by means of which a strip of plastic material, indented at intervals, is transported, an air-trunk extending above and along the same and having at intervals air-nipples directed toward the upper surface of said carrier and a strip-breaker to which the indented strip is progressively conveyed by the carrier.

9. In a candy-machine, the combination of an endless carrier for receiving and transporting the strip to be treated, strip-indenting means adjacent said carrier, cooling means in the path of said carrier, and a strip-breaker adjacent to which the indented strip is conveyed by the carrier.

10. In a candy-machine, the combination of means for receiving and transporting a strip of material to be treated, means for progressively indenting said strip at intervals during its traverse, means for thereafter cooling the indented strip, and means for contacting with and breaking said strip into sections at the indented portions.

11. In a candy-machine, the combination of an endless carrier, an indenting-wheel under which said carrier passes, an air-trunk under which said carrier passes, and a vibratory strip-breaker to which said carrier leads.

12. In a candy-machine, the combination of an endless carrier for the strip of material to be treated, means for indenting said strip during its travel, an air-trunk for directing currents of air upon the traveling strip to cool the same, a member for contacting with and breaking the indented strips into lengths, and means for rapidly vibrating said member.

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

ALBERT MOSEBACH

Witnesses:
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F. DE WITT GOODWIN