

F. R. WILLSON, JR.
MECHANISM FOR TREATING TOBACCO AND OTHER MATERIALS.
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951,978.

Patented Mar. 15, 1910.

Fig. 1.

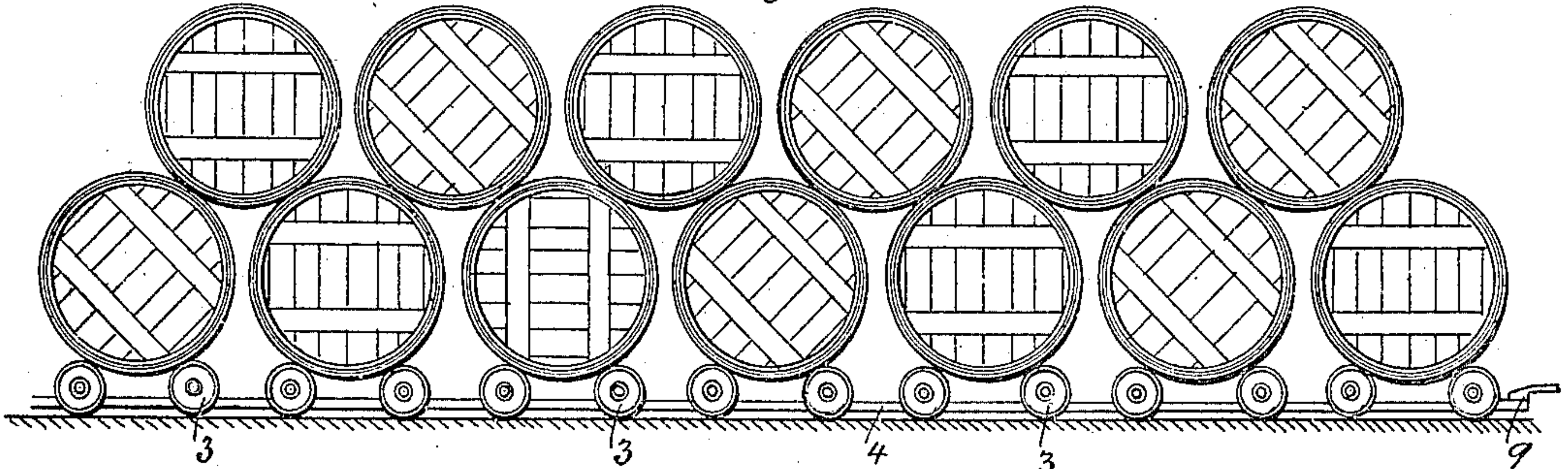


Fig. 2.

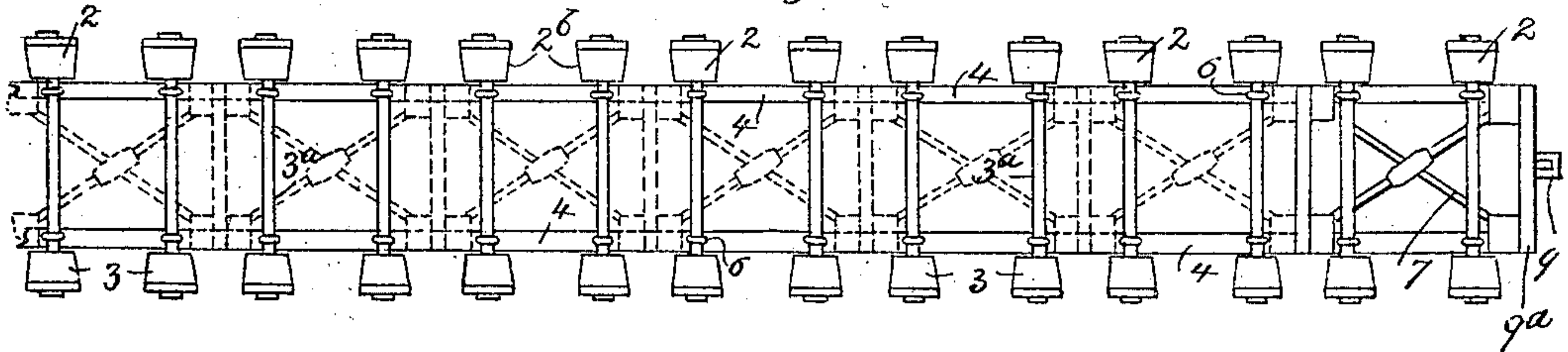


Fig. 3.

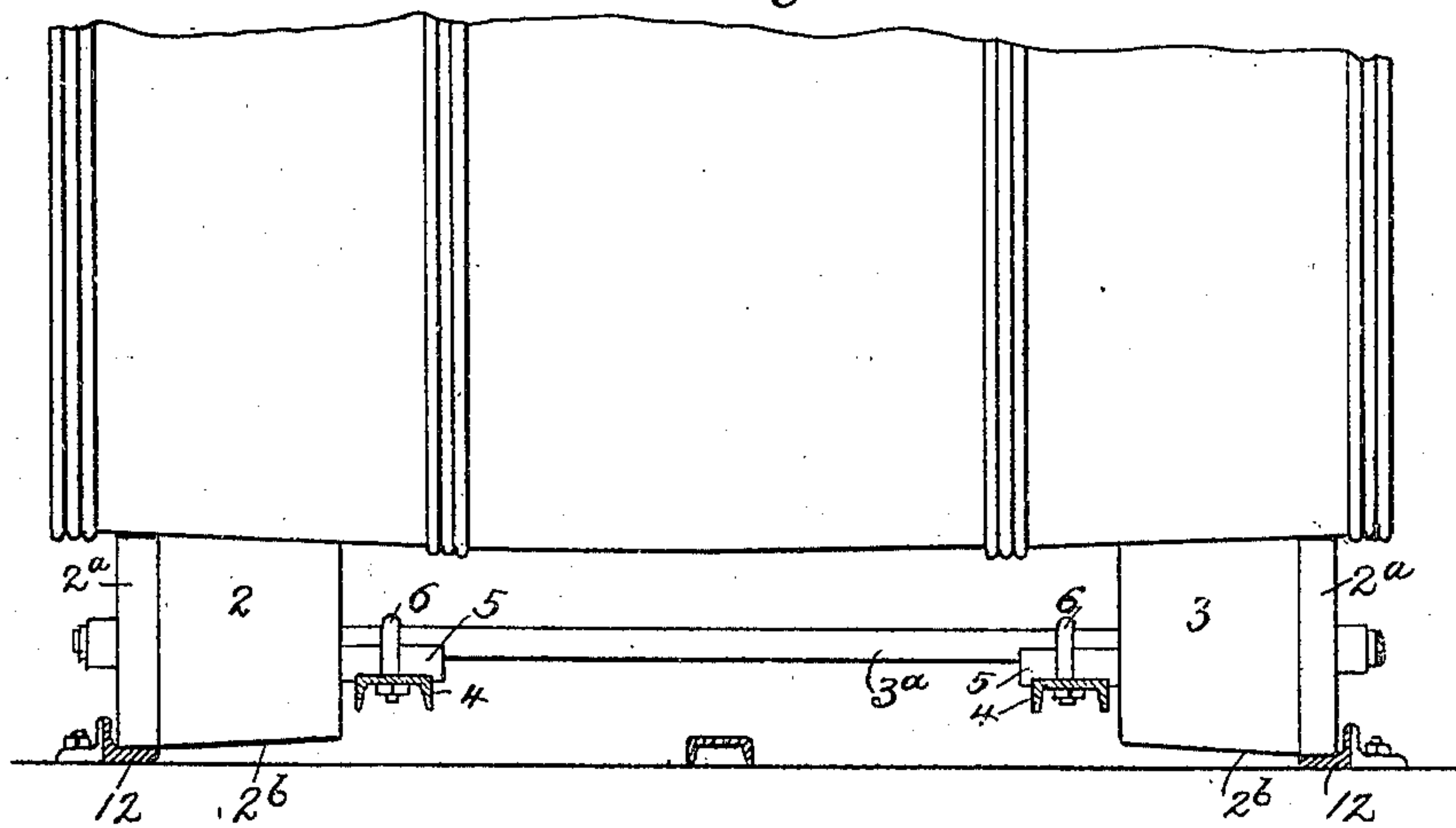
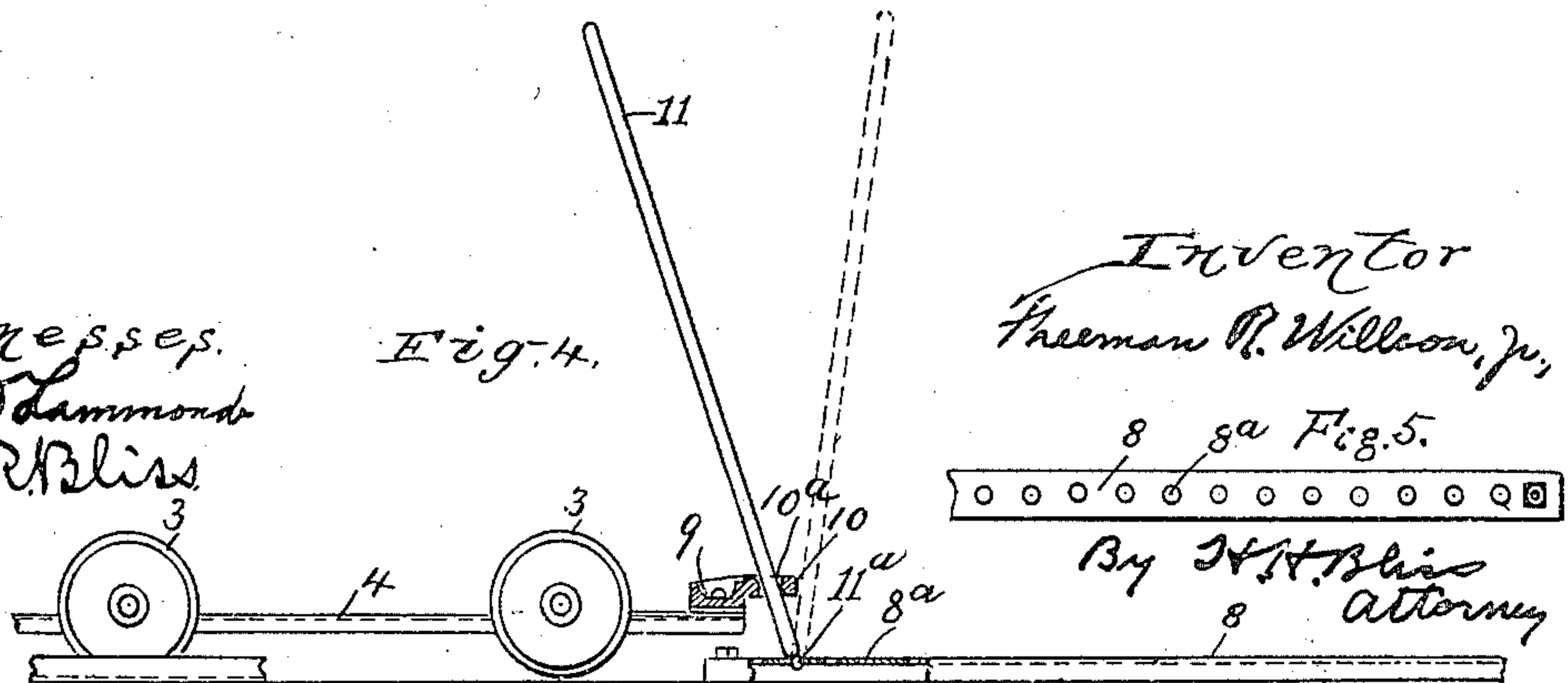


Fig. 4.



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UNITED STATES PATENT OFFICE.

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MECHANISM FOR TREATING TOBACCO AND OTHER MATERIALS.

951,978.

Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed April 26, 1907. Serial No. 370,412.

To all whom it may concern:

Be it known that I, FREEMAN R. WILLSON, Jr., a citizen of the United States, residing at Worthington, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Mechanism for Treating Tobacco and other Materials, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a barrel turning or rolling device.

It has for its object to produce an apparatus adapted to turn a barrel and is particularly adapted for use in places such as storehouses for barrels, where it is desired to turn the barrels over so that the contents thereof will not settle to one side.

As an example of the practical application of my invention, its use in places where tobacco is prepared for consumption can be cited. At one stage in the treatment of the tobacco, it is packed in barrels and allowed to "sweat". It is essential during this process to keep the tobacco uniformly moist and to prevent it from becoming packed too closely in the bottom of the barrels. To accomplish this end, the barrels are turned partly over at intervals, which prevents the moisture from accumulating in the bottom of the barrels.

It comprises a series of rollers mounted on shafts, which latter are connected together, adapted to support a number of barrels, and means for moving all of the rollers simultaneously, whereby the barrels resting thereon are caused to revolve.

Referring to the drawings—Figure 1 is a side elevation of an apparatus embodying my invention. Fig. 2 is a top plan view of Fig. 1, the barrels being removed. Fig. 3 is a view of a modified form of the invention taken at right angles to Figs. 1 and 2. Fig. 4 is a view showing a portion of the device and the means for moving it. Fig. 5 is a top plan view of the rack rail.

In the drawings, 2, 2, and 3, 3, indicate a set of rollers loosely mounted on shafts 3^a, 3^a. Each of said rollers preferably consists of a tread portion 2^a arranged near its outer end and adapted to contact with the floor or other support, and a cone-shaped portion 2^b extending from the tread portion to the inner end of the roller, on which the barrel rests.

4, 4 indicate a pair of parallel bars formed of angle iron mounted between the rollers 2 and 3 and arranged to connect the shafts 3^a together to form a frame. As many sets of rollers may be provided as may be desired, and in such case the bars 4, 4 are made long enough to connect all of the shafts together into a single apparatus. The shafts 3^a are mounted in bearings 5, the latter being secured in place by U-bolts 6, which extend around the shaft 3^a and secure the latter and bearings firmly to the bars 4. If found desirable strengthening braces 7 may be provided, as indicated in Fig. 2.

8 indicates a rack rail fixed to the floor or other support in close proximity to one end of the apparatus. This rail consists of a plate having a series of longitudinally-arranged apertures 8^a.

9 indicates a clip fixed to a rail 9^a extending between the bars 4, 4, and provided with an outward extending portion 10 in which is formed an opening 10^a.

11 indicates a lever for moving the frame and rollers bodily. This lever is arranged to pass through the opening 10^a and is provided with a reduced portion 11^a at its outer end adapted to engage with one of the apertures 8^a in the rail 8. By inserting the lever through the opening in the clip at an angle, as indicated in full lines in Fig. 4, thus causing it to engage with the aperture in the rack rail that is a little in advance of the said opening, and then moving the lever to the position shown in dotted lines, all of the rollers are simultaneously moved bodily an equal distance, and by repeating this operation the rollers may be moved forward any distance desired; and by operating the lever in an opposite manner, the rollers may be moved backward.

In Fig. 1 I have illustrated my invention in actual use, where a tier of barrels is shown. It will be understood that when the rollers are moved, they are caused to rotate on their shafts by reason of their engagement with the floor, and that such rotation is imparted to the barrel or barrels resting thereon. If desired, tracks 12, such as indicated in Fig. 3, may be provided for the rollers in places where the floor surface is uneven, so as to facilitate the moving of the rollers.

While I have herein described my invention for use in rotating barrels, it will be understood that my apparatus can be used

for other rotatable articles adapted to be arranged in relation to each other so that they can be rotated, or rotatable articles of any configuration which may have generally
 5 circular supporting rollers adapted to rest upon and be rotated by rollers carried by the frame. And the use of the word "barrel" throughout the specification and claims is to be understood to include such rotatable
 10 devices.

What I claim is:

1. In a device for storing or treating material, the combination of a barrel, a movable frame, bodily movable rollers supporting
 15 the frame and arranged axially parallel to the barrel, a support for the rollers, the said rollers projecting above the frame and adapted to support the barrel.

2. In a device for storing or treating material, the combination with a barrel, of a series of rollers adapted to support the barrel and arranged axially parallel thereto, means for connecting the rollers together, a support for the periphery of the rollers, and
 25 means for moving the rollers bodily.

3. In a device for storing or treating material, the combination of a barrel, a set of rollers arranged axially parallel to the barrel and adapted to support it, means for
 30 connecting the rollers together, means for applying power to all of the rollers simultaneously, and adapted to move them bodily.

4. In a mechanism of the class described, the combination of a plurality of barrels a series of sets of rollers, the rollers of each set being adapted to support one of the barrels, means supporting the rollers and engaging with their peripheries, means for holding the rollers of each set in proper relation to
 40 the barrel which they support, and means for moving all of said rollers bodily and simultaneously.

5. An apparatus for supporting barrels in a relatively lower series in relation to each
 45 other substantially as set forth whereby the barrels of the said lower series, in turn, support movably the barrels of an upper series, said apparatus having in combination a series of rotary holders for the barrels of
 50 the lower series, a support for the said rotary holders, and means for moving the rotary holders bodily along said support to rotate the holders and the barrels.

6. In a device for storing or treating material, the combination of a barrel, a movable frame, and bodily movable rollers supporting the frame and upon which the barrel rests in a position such that the axis of the barrel and rollers are parallel.

7. In a device for storing or treating material, the combination of a barrel, a movable frame, and bodily movable supporting wheels for the frame which are adapted to impart a motion of rotation to the barrel,
 65 the barrel being supported upon the frame

in such a manner that its axis is in fixed position with respect to the frame irrespective of the rotation of the barrel.

8. In a device for movably supporting barrels, the combination of a movable frame, 70 bodily movable supporting wheels for the frame, and two pairs of supporting rollers carried by the frame and adapted to be rotated by the movement of the frame, the rollers of each pair being spaced to support 75 a barrel and the two pairs being spaced so that a third barrel can be supported by the two lower barrels.

9. In a device for storing or treating material, the combination of a bodily movable 80 frame, rotary supports for the frame, a barrel supported upon the frame and means for rotating the barrel operated by the said rotary supports when the frame is bodily moved. 85

10. In a device for storing or treating material, the combination of a frame, four rollers mounted in the frame, with their axes parallel, and in the same horizontal plane, adapted to support the frame upon a 90 floor or other surface, two barrels, each resting upon two of the said rollers respectively and adapted to be rotated thereby when the frame is bodily moved, and a third barrel resting upon the upper sides of the barrels 95 aforesaid.

11. In a device for storing or treating material, the combination of a barrel, a movable frame, bodily movable rollers supporting the frame and upon which the 100 barrel rests in a position such that its axis is parallel to the axis of the rollers, a vertical lever pivoted at one end to said frame, and a rack bar, the lower end of the lever being adapted to engage the rack bar, at 105 any one of a plurality of points along the rack bar.

12. In a device for storing or treating material, the combination of a barrel, a movable frame, supporting wheels for the 110 frame movable bodily with respect to the ground which are adapted to impart a motion of rotation to the barrel, the barrel being mounted upon the frame with its axis normally stationary with respect to the 115 frame, the frame being formed with a vertical aperture, a horizontally arranged bar formed with a plurality of sockets, and a lever inserted in the said vertical aperture of the frame and adapted to engage suc- 120 cessively with its lower end the several sockets and to impart a bodily movement to the frame when it is oscillated about its lower end.

In testimony whereof I affix my signature, 125 in presence of two witnesses.

FREEMAN R. WILLSON, JR.

Witnesses:

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H. B. ALEXANDER.