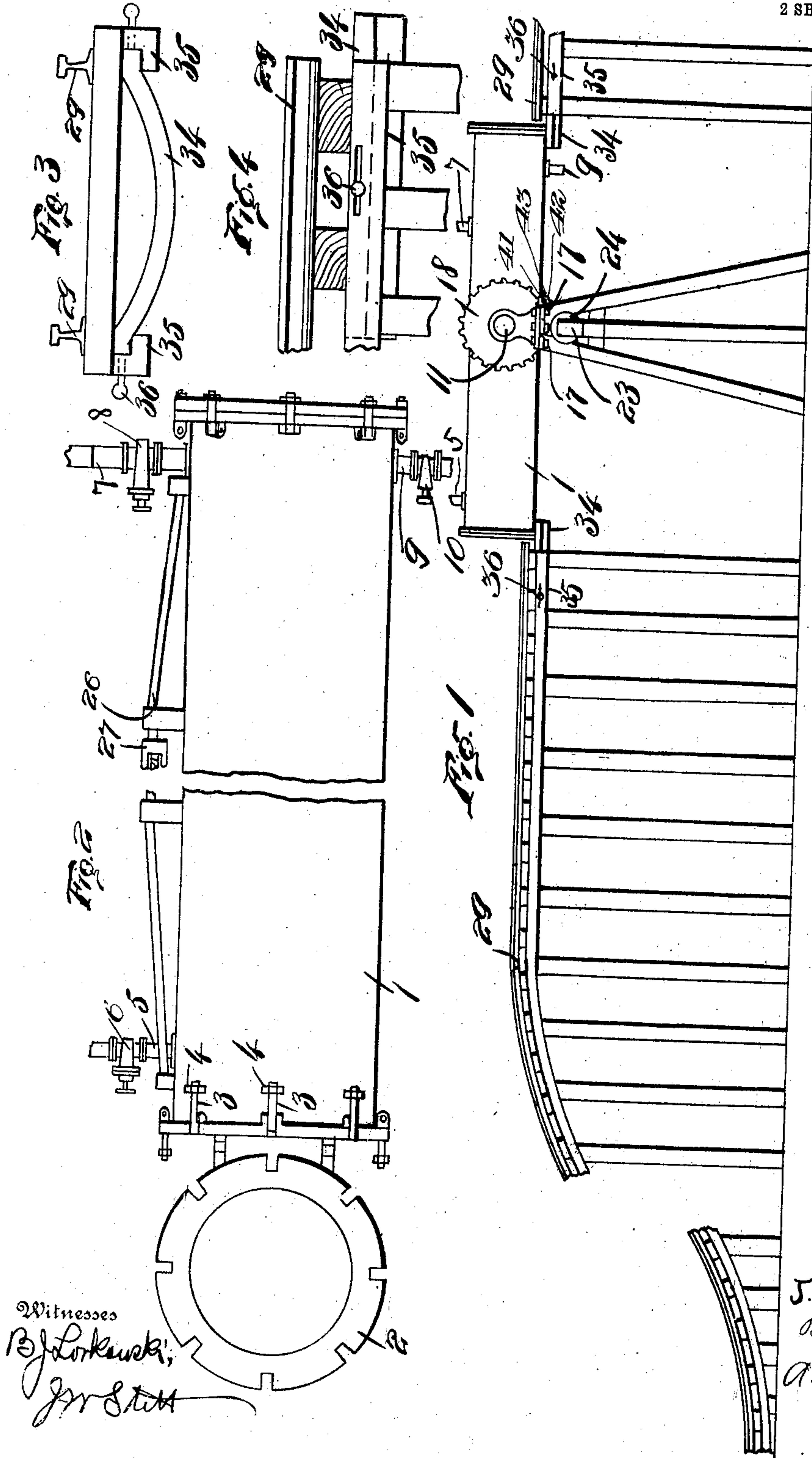


J. T. LOGAN.
 APPARATUS FOR PRESERVING WOODEN POLES.
 APPLICATION FILED SEPT. 14, 1909.

956,382.

Patented Apr. 26, 1910.

2 SHEETS—SHEET 1.



Witnesses
 B. J. Lorkowski,
 J. M. Smith

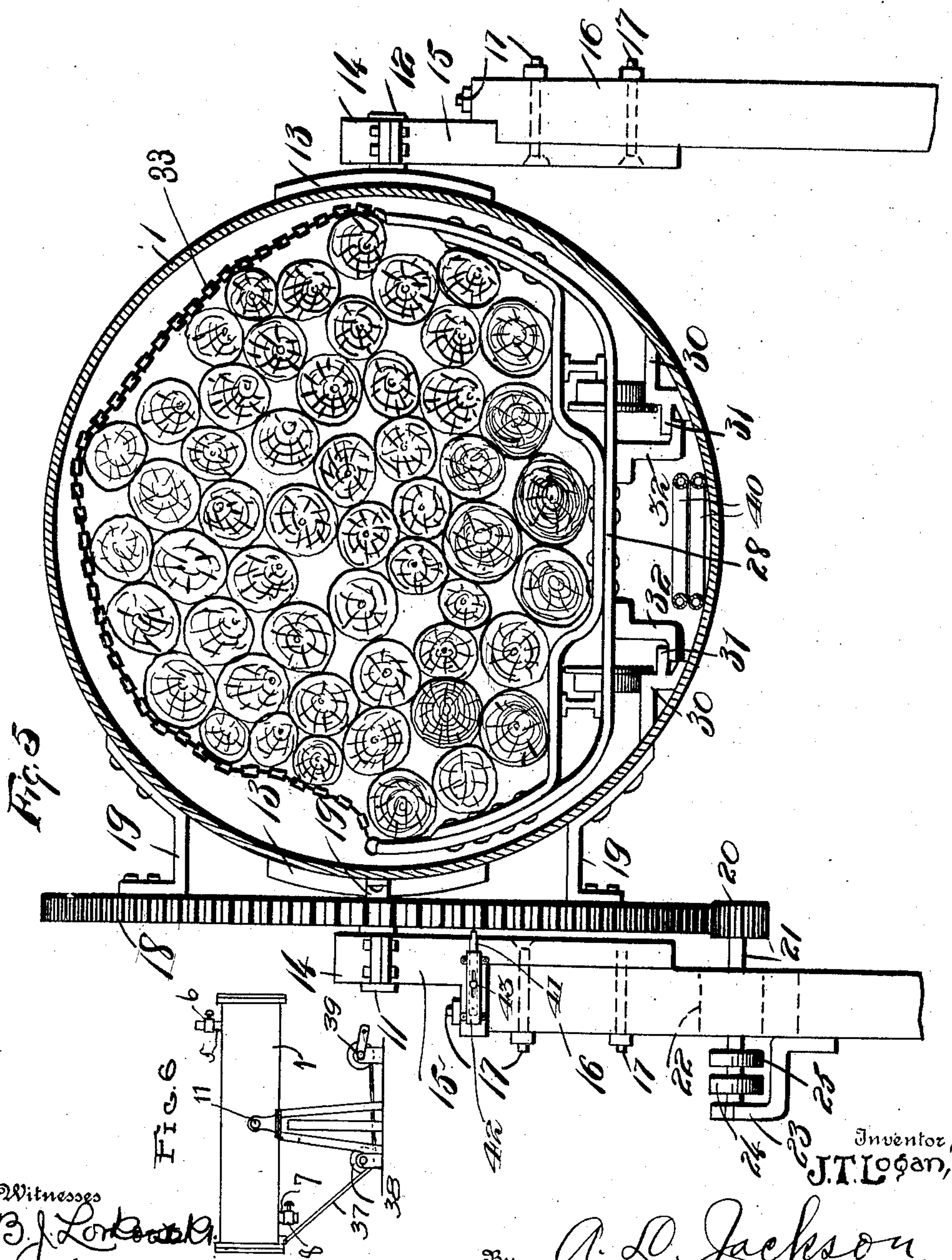
Inventor,
 J. T. Logan,
 By
 A. L. Jackson,
 Attorney

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 B. J. Lork
 J. W. Starr

Inventor,
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UNITED STATES PATENT OFFICE.

JOHN T. LOGAN, OF TEXARKANA, TEXAS.

APPARATUS FOR PRESERVING WOODEN POLES.

956,382.

Specification of Letters Patent.

Patented Apr. 26, 1910.

Application filed September 14, 1909. Serial No. 517,561.

To all whom it may concern:

Be it known that I, JOHN T. LOGAN, a citizen of the United States, residing at Texarkana, in the county of Bowie and State of Texas, have invented certain new and useful Improvements in Apparatus for Preserving Wooden Poles, of which the following is a specification.

This invention relates to apparatus for treating lumber with a preserving fluid, and more particularly to apparatus by which sections of pieces of lumber may be treated without treating the entire lengths of the lumber, and the object is to provide apparatus for treating lumber which is adapted to treat the whole pieces of lumber or any length of the pieces of lumber, and particularly to treat the butt end sections of such poles as are adapted for telegraph and telephone lines and electric light lines, and similar poles.

Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claims.

Reference is had to the accompanying drawings which form a part of this application and specification.

Figure 1 is a side elevation of the apparatus constituting my invention. Fig. 2 is a detail view of the treating cylinder or chamber, showing one end cap detached. Fig. 3 is an end elevation of the tram car track, showing the manner of supporting the end of the treating cylinder. Fig. 4 is a broken view of the track, being a side elevation of a portion of the track and showing the manner of supporting the end of the treating cylinder. Fig. 5 is a cross-section of the treating cylinder and showing the means for turning the cylinder on the supporting trunnions. Fig. 6 illustrates a variation in the means for changing the position of the treating chamber.

Similar characters of reference are used to indicate the same parts throughout the several views.

A cylinder 1 is provided for a treating chamber. The cylinder is provided with end caps 2 and bolts 3 and nuts 4 by which the cylinder may be hermetically sealed as such cylinders are usually sealed. The cylinder has a pipe connection 5 and valve 6 for compressed air or other purposes and a pipe connection 7 and valve 8 for admission of a preserving fluid. The cylinder is also

provided with a drain pipe connection 9 and valve 10. The pipe 5 may be connected with any supply source of compressed air so that pneumatic or hydraulic pressure may be applied to the contents of the cylinder, but the pipe connection 5 must be far enough from one end of the cylinder so that the pipe connection will not be below the surface of the preserving fluid within the cylinder when the cylinder is turned to vertical position. The pipe 8 may be connected to any suitable supply source of preservative fluid. The cylinder can thus be used to carry out the burnettizing process or creosoting process or other process of treating lumber. The cylinder is further adapted for treating the butt ends of poles or sections of lumber. The cylinder may be made to any suitable size, the cylinder for general purposes being preferably forty feet long and six feet in diameter. The cylinder is pivotally mounted on trunnions 11 and 12 which have bases 13 which may be riveted to or formed integral with the cylinder 1. Bearings 14 are provided for the trunnions 11 and 12. Bearing blocks 15 are mounted on frames 16 and bolted thereto by bolts 17. The frames 16 are preferably about twenty feet high for a forty feet cylinder and frames of different heights will be necessary for cylinders of different lengths. The frames 16 may be braced in any suitable manner.

Means are provided for turning the cylinder 1 on its trunnions. A gear wheel or cog wheel 18 is mounted on the trunnion 11 and attached rigidly to the cylinder 1 by cleats 19 which are riveted to the cylinder. A pinion 20 meshing with cog wheel 18 is mounted on a shaft 21 which is journaled in bearings 22 and 23. A fast pulley 24 for driving the gearing 20 and 18 is mounted on the shaft 21 and a loose pulley 25 is also mounted on shaft 21. Any suitable power may be applied to the pulley 24 to position the cylinder 1. The cylinder may be horizontally disposed or vertically disposed at will. On account of the great length of the cylinder, braces 26 may be attached to the exterior of the cylinder and provided with a turnbuckle 27 for adjusting the braces to the cylinder.

Means are provided for loading and unloading a cylinder. Tram cars 28 for hauling the lumber or poles are provided. A track 29 may be provided for entering either end of the cylinder. The tram cars are run

from the track 29 into the cylinder on tracks 30. Means are provided for holding the cars 28 on the tracks 30. The tracks 30 are provided with flanges 31 and lugs 32 are attached to the cars 28 so that the lugs will project under the flanges 31 as the cars move. With this construction, the cars will not leave the track when the cylinder is vertically disposed. The lumber may be held on the cars by suitable chains 33 or equivalent means.

Means are provided for supporting the cylinder against movement while in a horizontal position. Supports 34 are slidably mounted on the beams 35 under the tracks 29. These supports are provided with lugs or handles 36 which project through slots in the beams 35. The supports 34 may be moved by the handles 36 and brought under the ends of the cylinder to support the same and the handles may be used to remove the supports when not in use. The end caps 2 are preferably made flat on the interior so that all the poles will rest on a level surface and be even.

It is apparent that the cylinder herein described may be used for treating timber with any of the preserving fluids or to carry out numerous processes similar to the creosoting or the burnettizing process and that the cylinder can be maintained in a horizontal position for this purpose. It is also apparent that the said cylinder can be vertically disposed so that any suitable or desirable portion of pieces of lumber may be treated with a preserving fluid. The apparatus is also adapted to carry out the object of this invention, that is, the treatment of the butt ends or sections of poles.

The lumber is loaded on the tram cars and secured thereto by suitable binding means. The tram cars are then ready to be placed in the cylinder. By means of the gearing the cylinder is brought to a horizontal position on a line with the terminals of the tracks and the supports 34 are placed under the ends of the cylinder. The car of poles or lumber is then run into the cylinder. The cylinder may then be hermetically sealed. By means of the gearing described, the cylinder is brought to a vertical position. In case of poles, the end of the cylinder which contains the butt ends of poles is lowered next to the ground. Creosote or other preserving fluid is then let into the cylinder up to the desired height, and maintained at such height during the treatment of a charge of poles. It is apparent that such cylinder may be heated by coils of pipe 40 as other cylinders are heated. Compressed air may be forced through the pipe 5 and hydraulic pressure used to force the liquid preservative into the sections of the wood. After the poles have been sufficiently treated, the cylinder can be brought back to the horizontal

position by suitable gearing. The preserving fluid not forced into the lumber may be drawn off before changing the cylinder from the vertical position. After being brought back to horizontal position the cylinder is unsealed and one end removed so that the charge of timber may be moved out of the cylinder.

Besides the means for locking the cylinder 1 in a horizontal position by the supports heretofore described, it is apparent that the gearing for turning the cylinder may be locked at any position so that the chamber 1 may be locked in any desirable position relative to its pivotal mounting. A keeper 42 is attached to block 15 and a locking bolt 41 is slidably mounted in the keeper 42. The locking bolt may be moved by a knob or handle 43 which moves in a slot in the keeper 42, the knob being attached to the bolt 41. The locking bolt 41 may be made to engage the cog wheel 18 at any part thereof between two cogs and thus lock the wheel against rotation. Gearing shown in Fig. 6 may be used for changing the position of the cylinder. A chain or cable 37 with sheave wheel 38 and windlass 39 may be used for moving the cylinder.

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

1. A timber treating apparatus comprising a treating vessel and means for hermetically sealing the vessel, suitable pipe connections with said vessel, a frame and trunnions for pivotally mounting said vessel, tram car tracks in said vessel, tracks for tram cars leading to the tracks in said vessel, means for locking the tracks in said vessel in line with the tracks leading to said vessel, tram cars adapted to run within said vessel, a gear wheel mounted on one of said trunnions and rigid with said vessel, and gearing for driving said gear wheel.

2. A timber treating apparatus having a chamber for containing the timber while being treated, means for pivotally mounting said chamber whereby said chamber may be vertically or horizontally disposed at will, tram cars for conveying timber within said chamber, tracks within and attached to said chamber for said tram cars, tracks leading to said cylinder and carrying means for locking the cylinder in horizontal position, flanges carried by said tracks and projecting inwardly, said tram cars having lugs adapted to engage said flanges to bind said tram cars to said chamber, and pipe connections for said chamber.

3. A timber treating apparatus having a chamber for containing the timber while being treated, means for pivotally mounting said chamber whereby said chamber may be vertically or horizontally disposed at will, tram cars and tracks therefor for conveying

timber to said chamber, tracks within said chamber coöperating with the first named tracks, pipe connections for said chamber, and supports slidably mounted in said first
5 named tracks for temporarily supporting said chamber in horizontal position.

4. A timber treating apparatus having a chamber and means for hermetically sealing the same, pipe connections for said chamber,
10 tracks within and without said chamber, means for pivotal mounting of said chamber whereby said chamber may be swung down at one end for the treating of timber and swung back to bring the tracks within the

chamber in line with the tracks without the
15 chamber, means for locking the tracks within the chamber in line with the tracks without the chamber, and means for conveying timber within and without said chamber.

In testimony whereof, I set my hand in
the presence of two witnesses, this 2nd day
20 of September, 1909.

JNO. T. LOGAN.

Witnesses:

J. C. SCOTT,
M. BRODY.