

No. 754,530.

PATENTED MAR. 15, 1904.

A. J. ZILKER, A. L. TIDMARSH & C. J. ARMSTRONG.

DRIER RACK.

APPLICATION FILED APR. 9, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

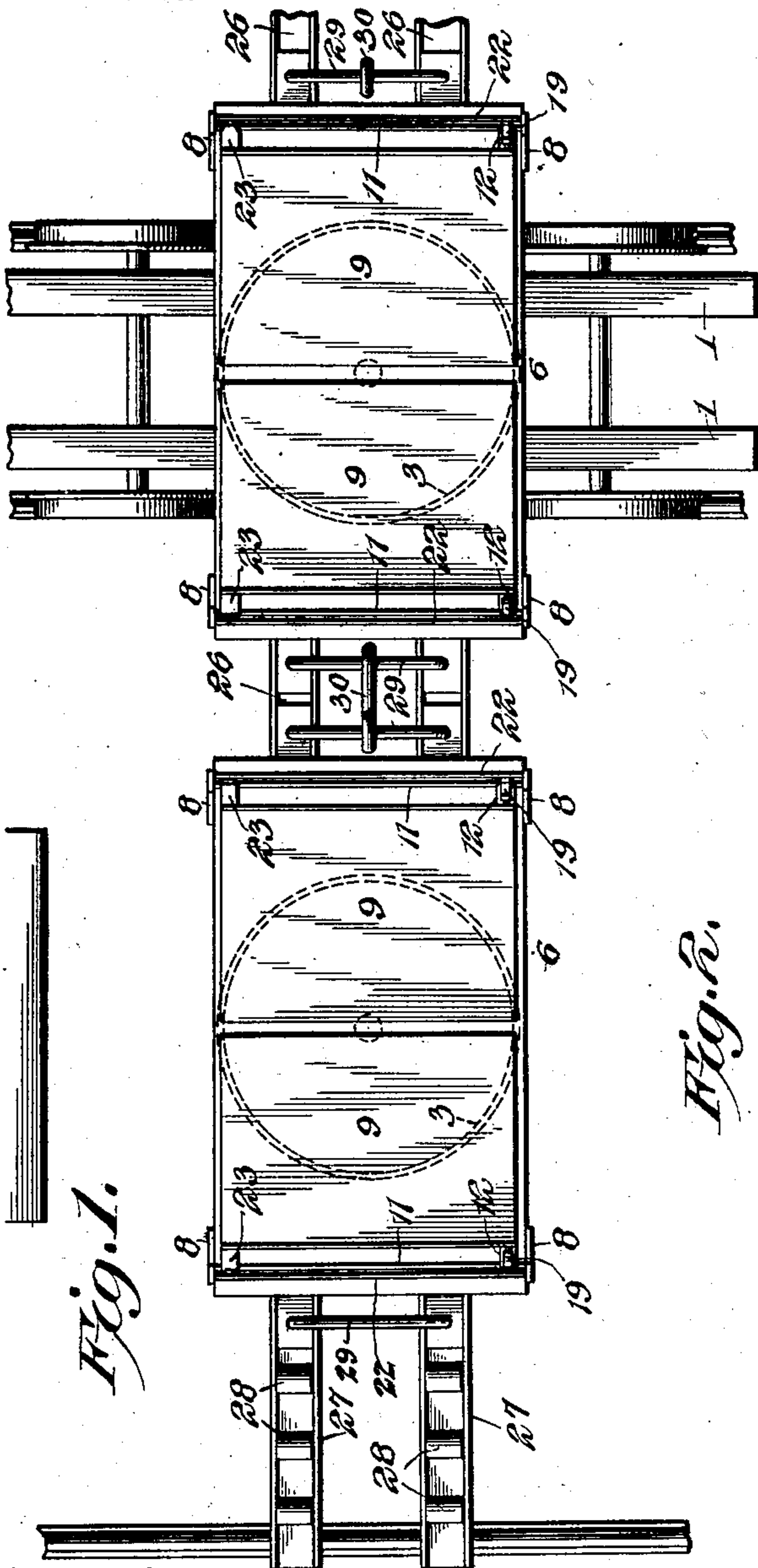
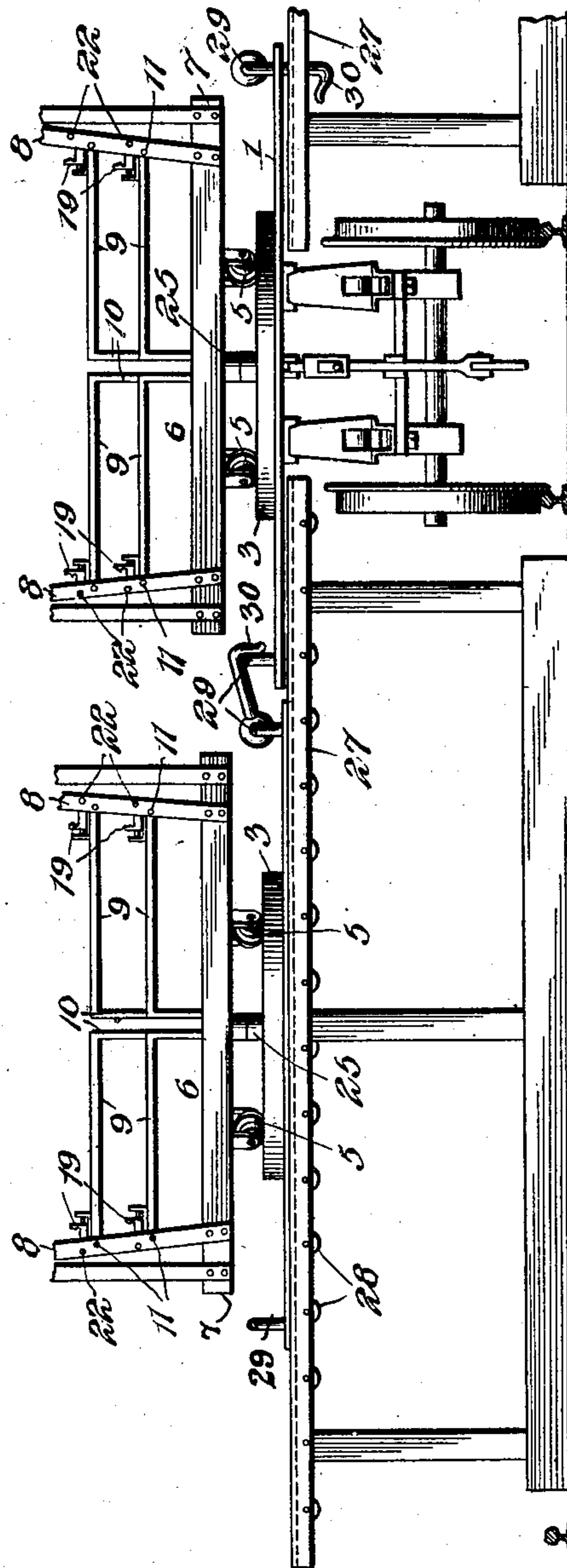


Fig. 1.



Andrew J. Zilker,
Albert L. Tidmarsh
Charles J. Armstrong Inventors

Witnesses

Howard W. Orr

J. F. Riley

By

E. G. Siggers

Attorney

No. 754,530.

PATENTED MAR. 15, 1904.

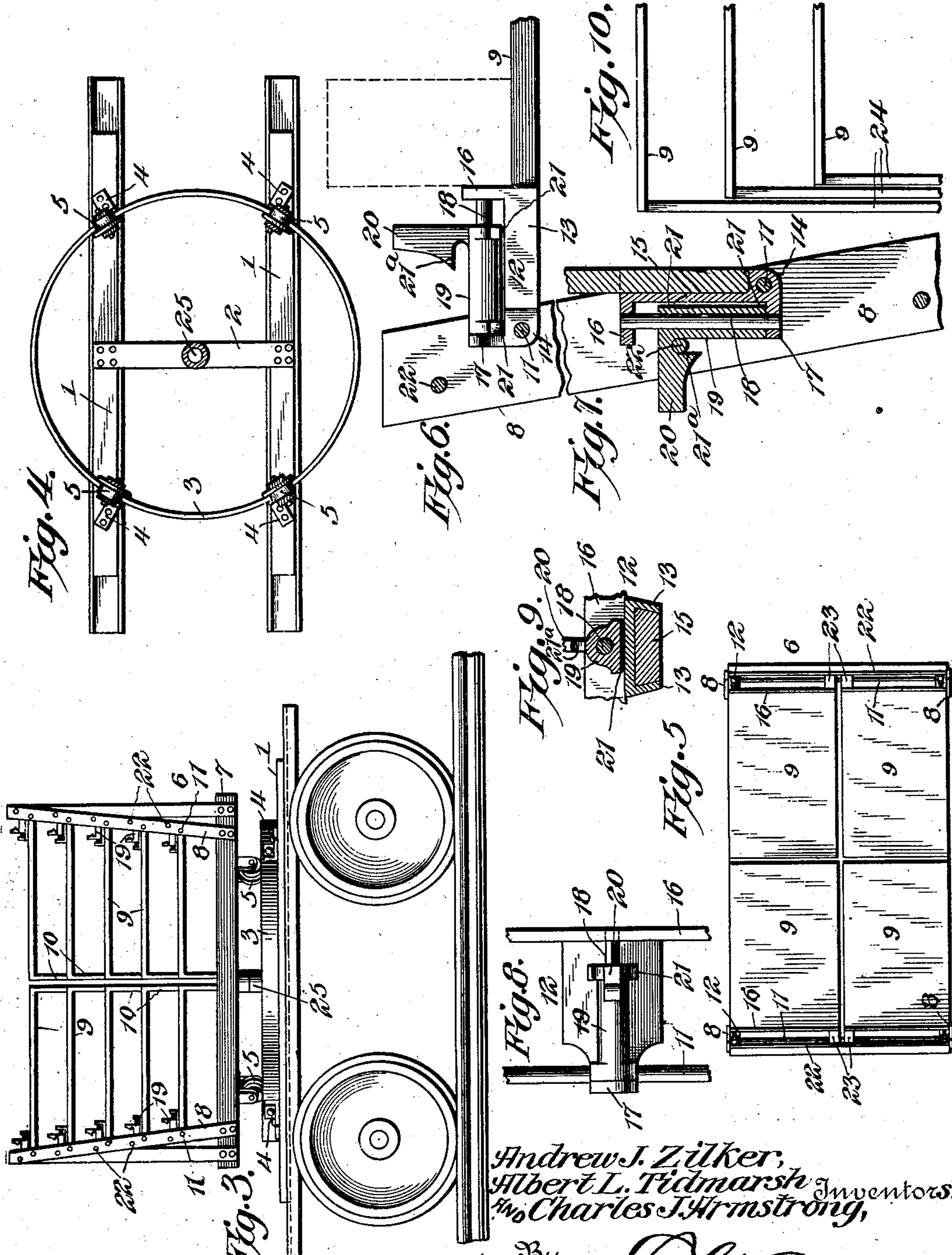
A. J. ZILKER, A. L. TIDMARSH & C. J. ARMSTRONG.

DRIER RACK.

APPLICATION FILED APR. 9, 1903.

NO MODEL.

2 SHEETS—SHEET 2.



Witnesses
Howard A. Orr
H. J. Piley

Andrew J. Zilker,
Albert L. Tidmarsh, Inventors.
By Charles J. Armstrong,
Attorney

UNITED STATES PATENT OFFICE.

ANDREW J. ZILKER, ALBERT L. TIDMARSH, AND CHARLES J. ARMSTRONG,
OF AUSTIN, TEXAS.

DRIER-RACK.

SPECIFICATION forming part of Letters Patent No. 754,530, dated March 15, 1904.

Application filed April 9, 1903. Serial No. 151,904. (No model.)

To all whom it may concern:

Be it known that we, ANDREW J. ZILKER, ALBERT L. TIDMARSH, and CHARLES J. ARMSTRONG, citizens of the United States, residing at Austin, in the county of Travis and State of Texas, have invented a new and useful Drier-Rack, of which the following is a specification.

The invention relates to improvements in drier-racks for handling bricks.

The object of the present invention is to improve the construction of drier-racks and to provide a simple, inexpensive, and efficient one adapted either to form a permanent portion of a brick car or truck or to be simply placed upon the same to be transferred from the car to suitable supports, and vice versa.

The invention also has for its object to provide a rack of this character adapted to be conveyed by a car to a brick-machine and deposited upon suitable supports and capable when one side is loaded of being partially rotated to bring the other side in position for loading.

A further object of the invention is to provide a drier-rack having a plurality of shelves adapted to be successively brought into position for receiving bricks and to provide a simple and efficient locking device for holding the shelves in an elevated position out of the way.

Another object of the invention is to enable the shelf to be automatically locked when swung upward and to arrange the hinges and catches to form guides or stops for the bricks.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in the form, proportion, size, and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a plan view showing two drier-racks constructed in ac-

cordance with this invention, one of the racks being arranged upon supports and the other rack being located on a car above the track. 50
Fig. 2 is a side view of the same. Fig. 3 is a side elevation of the drier-rack, the same being arranged upon a car. Fig. 4 is a plan view of the base of the drier-rack, illustrating the construction of the turn-table. Fig. 5 55
is a plan view of a drier-rack, the shelves being divided longitudinally of the rack to provide four independent shelves or sections. Fig. 6 is an elevation, partly in section, showing one of the catches, the same being swung 60
inward out of engagement with its keeper-rod. Fig. 7 is a vertical sectional view of the same, the catch being in engagement with the keeper-rod. Fig. 8 is a plan view of the catch, the parts being arranged as shown in Fig. 6. 65
Fig. 9 is a detail sectional view illustrating the manner of connecting the catch with a shelf. Fig. 10 is a detail view illustrating a slight modification of the invention in which each of the shelves rests upon the bottom of 70
the rack.

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

1 1 designate a pair of parallel bars connected by a central cross-piece 2 and forming the foundation pieces or sills of the drier-rack and also constituting slides. The parallel bars form a support for a circular track 3, which is secured to the bars near the ends thereof 80
by brackets 4, preferably L-shaped, as shown; but any other form of bracket or clamp may be provided. The circular track receives wheels 5 of a drier-rack frame 6, composed of a bottom portion 7 and upright standards arranged in pairs at the ends of the bottom of the drier-rack frame. The standards, which 85
may be of any desired construction, preferably consist of inclined bars 8 and vertical supporting bars or braces. The wheels 5 are mounted 90
in suitable bearings or brackets and are preferably provided with flanges for engaging the inner face of the track.

The drier-rack is provided with vertical se-

ries of shelves 9, adapted to receive the bricks and hinged at their outer ends between the standards and provided at their inner ends with depending supporting portions 10, arranged as clearly shown in Fig. 3 of the drawings. The shelves may extend entirely across the space between the standards, as illustrated in Fig. 1 of the drawings, or a pair of shelves may be provided, as shown in Fig. 5. This construction will permit one side of the drier-rack to be entirely filled with bricks before filling the other side, the rack being partially rotated after one side has been filled to bring the empty side in position for filling. The shelves are adapted to be swung upward to a vertical position, as indicated in Fig. 7 of the accompanying drawings, and the bars 8 of the standards are inclined to enable the hinged outer ends of the shelves to be offset from one another to permit the shelves to clear one another and to be compactly arranged when swung upward. The shelves are hinged to the standards by rods 11, which extend entirely across the space between the standards and which pass through perforations of plates or leaves 12, having depending side flanges 13 and provided at the outer end with a depending ear 14. The shelf is provided with a projecting portion 15, which fits between the flanges 13 and which is embraced by the same. The flanges are arranged at an angle to each other to form a dovetailed connection, but any other suitable means may be employed, and the plates or leaves may be secured to the shelves by any suitable fastening devices. Each plate or leaf is provided with upwardly-projecting end flanges 16 and 17, having perforations for the reception of a rod 18, upon which a slidable catch or locking device 19 is mounted. The catch or locking device consists of a tubular portion and an arm 20, arranged at right angles to the tubular portion. The tubular portion of the catch fits on the rod or pin 18 and has a limited sliding movement on the same, and it is extended laterally and provided with a flat face 21, arranged contiguous to the leaf or plate, as clearly shown in Fig. 9, whereby the catch or locking device is prevented from rotating on the pin or rod. The outwardly-extending arm 20 is provided with a notch 21^a to engage the keeper-rod 22, which also extend entirely across the space between the standards. The arm 20, which when in engagement with the rod 22 projects horizontally beyond the inclined bar of the standard to enable it to be conveniently operated, is beveled at the outer side of the notch 19 to enable the catch or locking device to engage the keeper-rod automatically when the shelf is swung upward to a vertical position. The latches or locking devices are automatic in their operation, and they will permit the shelves to be lowered one at a time, and

there is no liability of one or more shelves accidentally dropping and interfering with the work. A latch or catch is arranged at one side of each shelf and a leaf or plate 23 is located at the opposite side, only one latch being required for supporting a shelf in an upright position. When the shelves extend entirely across the drier-rack, one side of each shelf may be filled, and the rack may then be partially rotated to fill the other side. The drier-rack can be quickly turned to present either side for filling. The inner flange or ear 16, which supports the rod or pin upon which the catch is mounted, forms a stop or guide for placing bricks upon a shelf, as indicated in Fig. 6 of the drawings. The shelves may consist of boards and be provided with suitable perforations to facilitate drying bricks, or they may consist of a series of slats or bars suitably connected together. Also instead of supporting the free end of one shelf upon another, as shown in Figs. 2 and 3, the shelves may vary in length and be provided with legs 24, arranged to rest upon the bottom of the drier-rack, as indicated in Fig. 10 of the drawings.

The bottom of the drier-rack is connected with the connecting cross-bar 2 of the base by a suitable pivot 25, which may be of any desired construction and which, with the wheels 5, will permit the rack to be rotated freely.

The bars 1, which form the sides of the base and which may be arranged either transversely or longitudinally of a car, are adapted to form slides for moving in ways 26 of the supports. These supports 27, which may be constructed in any desired manner and which are designed to be located adjacent to the brick-machine and kiln of a brick-yard and at any other desired points, are preferably provided at the top with channel-bars to form the ways 26. The ways 26, which have upwardly-projecting side flanges, are preferably provided with anti-friction-rollers 28, mounted at the bottom of the ways 26 and projecting through openings of the channel-bars, as clearly shown in Fig. 2.

In Fig. 3 of the drawings the drier-rack is shown arranged on a car with the bars 1 of the base disposed longitudinally of the frame of the car, and in Figs. 1 and 2 the bars 1 of the base are disposed transversely of the frame of the car and project from opposite sides thereof and are adapted to be readily arranged in the ways of the supports. The car is designed to be constructed in accordance with an application for Letters Patent of the United States executed by me of even date herewith. The tracks and supports of a brick-yard may be arranged in any desired manner, as will be readily apparent, and in handling bricks an empty rack is run in between the supports on the right-hand track (shown in Fig. 1) and is then lowered upon the support

to the position indicated in Fig. 2 of the drawings. It is then moved laterally of the track upon the support between the tracks and after being filled is loaded upon a car at the left-hand track. In order to facilitate manipulating the drier-racks, the side bars of the base are preferably connected near their ends by transverse rods 29, having hooks 30, adapted to engage rods of an adjacent car to couple the car, as shown in Figs. 1 and 2, whereby a pair of racks may be simultaneously actuated in order that when a full rack is moved to the left on the support (shown in Figs. 1 and 2 of the drawings) to load it upon a car at the left-hand track an empty rack may be drawn upon the support from a car on the right-hand track. Each car is designed to be provided with a hook at one end, and the rod at the other end is designed to receive a hook of an adjacent bar, as shown in Fig. 2. By this construction the racks may be readily transferred from cars to supports, and vice versa, to enable them to be filled with bricks and to facilitate tossing or otherwise handling the brick both at the machine and at the kiln. The rack by being provided with a turn-table obviates the necessity of employing turn-tables and transfer-cars for turning the rack-carrying cars end for end. The racks may be constructed separate from the cars or form a permanent part thereof, and the cars may be provided with ways to receive the side bars of the base of the rack.

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

1. In a drier-rack, the combination with a pintle-rod, and a keeper-rod, of a leaf or plate provided with means for securing it to a drier-rack shelf and having projecting flanges, one of the flanges forming a guide or stop for bricks, and a catch or locking device mounted on the leaf or plate and arranged to engage the keeper, substantially as described.

2. In a drier-rack, the combination with a keeper, and a shelf, of a leaf or plate secured to the shelf and provided with projecting flanges, a rod or pin supported by the flanges, and a catch mounted on the rod or pin and arranged to engage the keeper, substantially as described.

3. In a drier-rack, the combination with a keeper, and a shelf, of a pivotally-mounted leaf or plate secured to the shelf and provided with projecting flanges, one of the flanges forming a stop or guide for the bricks, a rod or pin supported by the flanges, and a slidable catch mounted on the rod or pin and arranged to engage the keeper automatically, substantially as described.

4. In a drier-rack, the combination of standards, pintle and keeper rods arranged in pairs, a vertical series of shelves, leaves or plates

secured to the shelves and mounted on the pintle-rods, and catches carried by the leaves or plates and arranged to engage the keeper-rods automatically, substantially as described.

5. In a drier-rack, the combination with a bottom, standards rising therefrom, and pintle and keeper rods arranged in pairs, of a vertical series of shelves, leaves or plates mounted on the pintle-rods and secured to the shelves and provided with projecting portions forming stops or guides for the bricks, and catches mounted on the leaves or plates and arranged to engage the keeper-rods automatically when the shelves are swung upward, substantially as described.

6. In a drier-rack, the combination with standards, and shelves, of pintle-rods, leaves or plates secured to the shelves and provided with projecting flanges, rods or pins mounted on the flanges, slidable catches arranged between the flanges and mounted on the rods or pins and provided with projecting engaging portions, and keeper-rods arranged to be engaged by the catches, substantially as described.

7. In a drier-rack, the combination with a bottom, standards rising therefrom, and shelves, of pintle and keeper rods connecting the standards and arranged in pairs, leaves or plates arranged at opposite sides of the shelves, one of the leaves of each shelf being provided with projecting flanges and having a pin supported by the same, and slidable catches arranged on the pins and provided with projecting portions arranged to engage the keeper-rods automatically, substantially as described.

8. In a drier-rack, the combination with a shelf, and pintle and keeper rods, of a leaf or plate having depending flanges forming a dove-tailed joint and embracing the shelf, and a catch mounted on the leaf or plate and arranged to engage the keeper-rod, substantially as described.

9. In a drier-rack, the combination of a base provided at opposite sides with slides and having a circular track, superimposed pivotally-connected shelves, and means for supporting the shelves provided with wheels to run on the track, substantially as described.

10. The combination with opposite elevated supports having guides, of a drier-rack slidable on the supports and provided with a turn-table and having slides at the base thereof, substantially as described.

11. The combination with opposite elevated supports provided with guides, of a drier-rack having a turn-table, and provided at the base thereof with slides arranged to rest upon and move longitudinally of the supports in the guides thereof, substantially as described.

12. The combination with opposite supports having ways, of a drier-rack provided with a turn-table, and having slides arranged to move in the ways, substantially as described.

13. In a drier-rack, the combination of standards, pintle and keeper rods arranged in pairs and connecting the standards, shelves mounted on the pintle-rods, and independently-
5 operable automatically-operating catches carried by the shelves and arranged to engage the keeper-rods, substantially as described.

In testimony that we claim the foregoing as

our own we have hereto affixed our signatures in the presence of two witnesses.

ANDREW J. ZILKER.

ALBERT L. TIDMARSH.

CHARLES J. ARMSTRONG.

Witnesses:

J. R. McARDLE,

V. E. BROOKS.