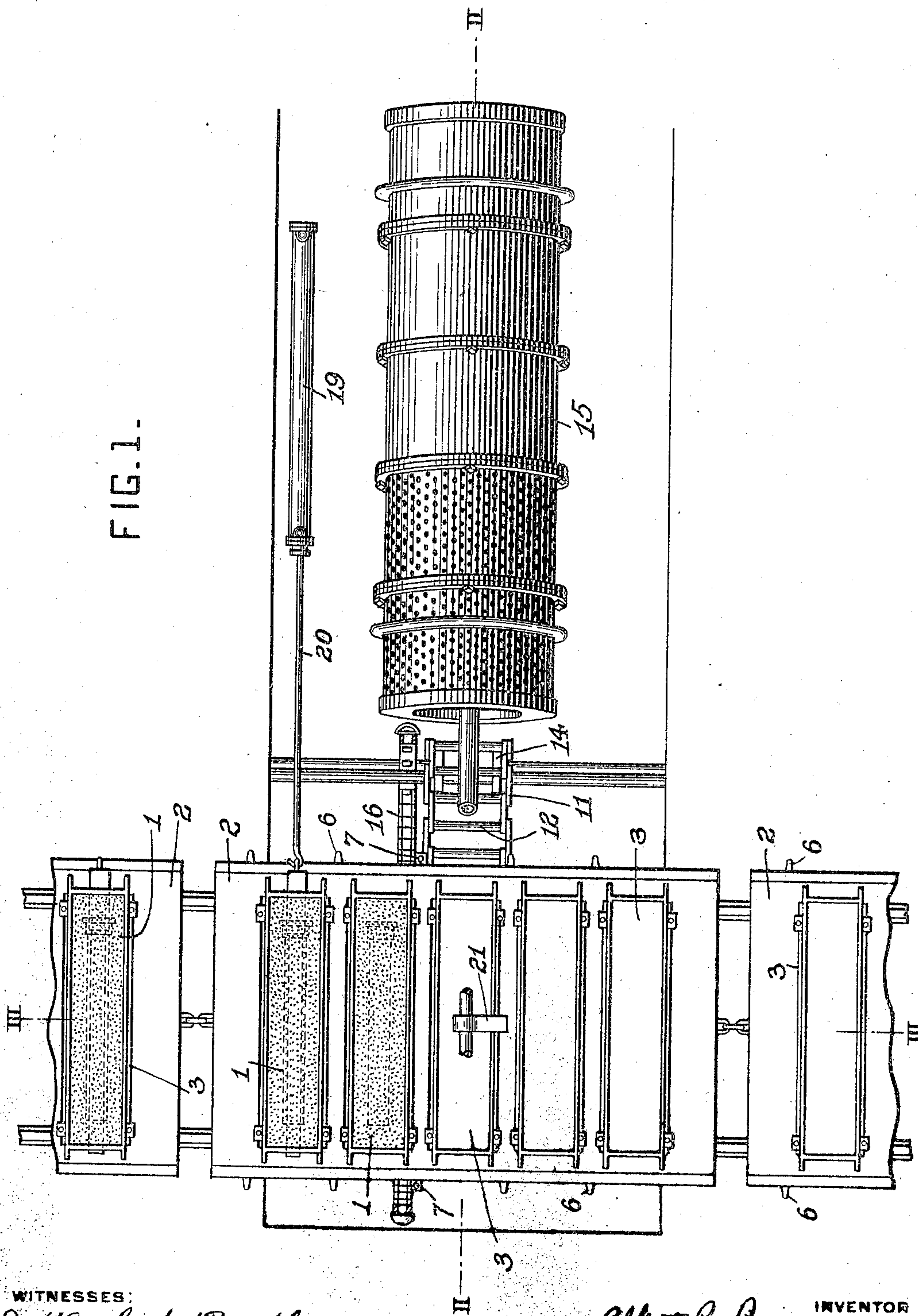


951,576.

A. R. PRICE.
 FOUNDRY PLANT.
 APPLICATION FILED OCT. 21, 1909.

Patented Mar. 8, 1910.

4 SHEETS—SHEET 1.



WITNESSES:
J. Herbert Bradley
Francis J. Tomason

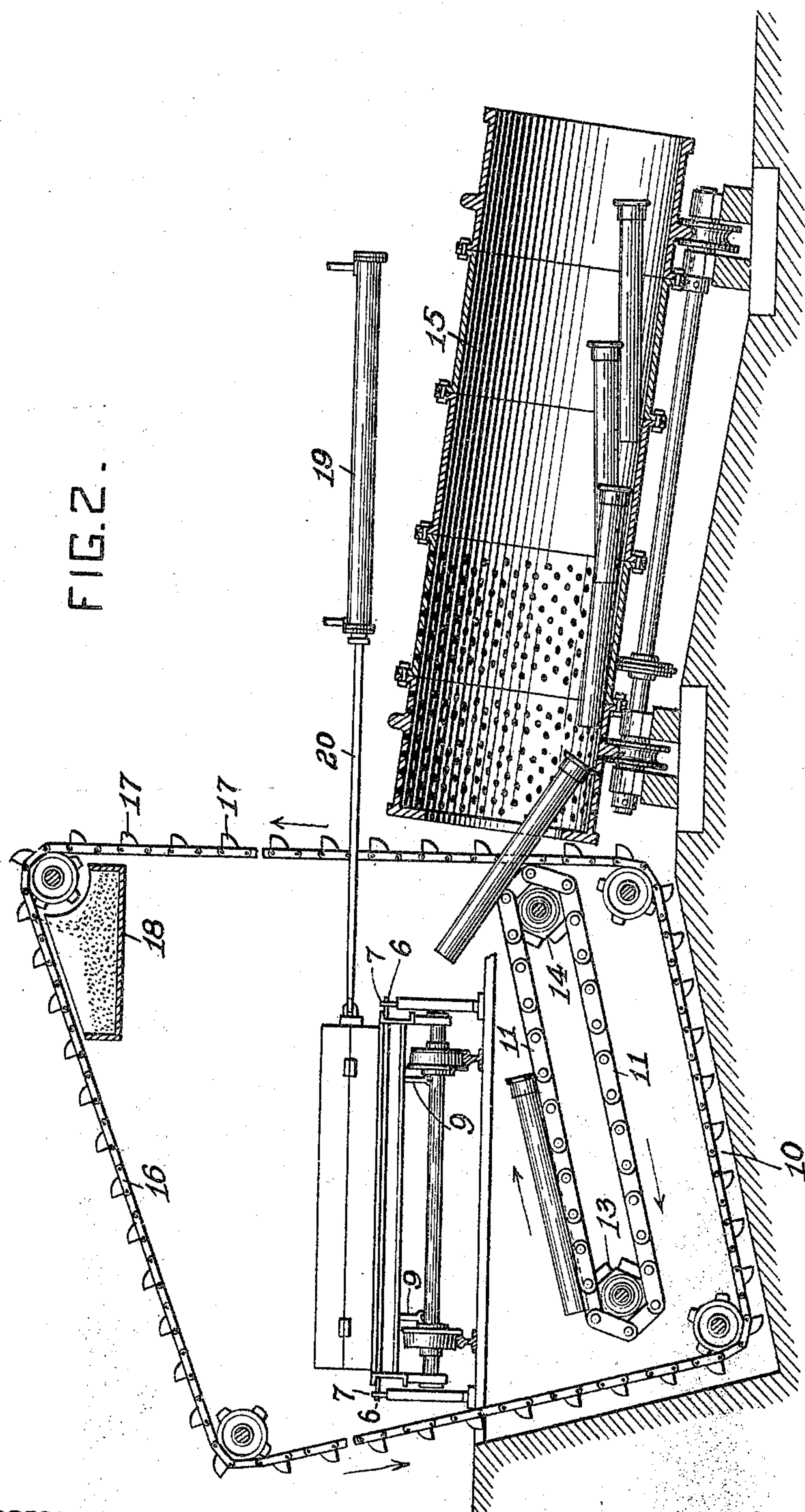
Albert R. Price INVENTOR
by Christy and Christy
 ATTS

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4 SHEETS—SHEET 2.



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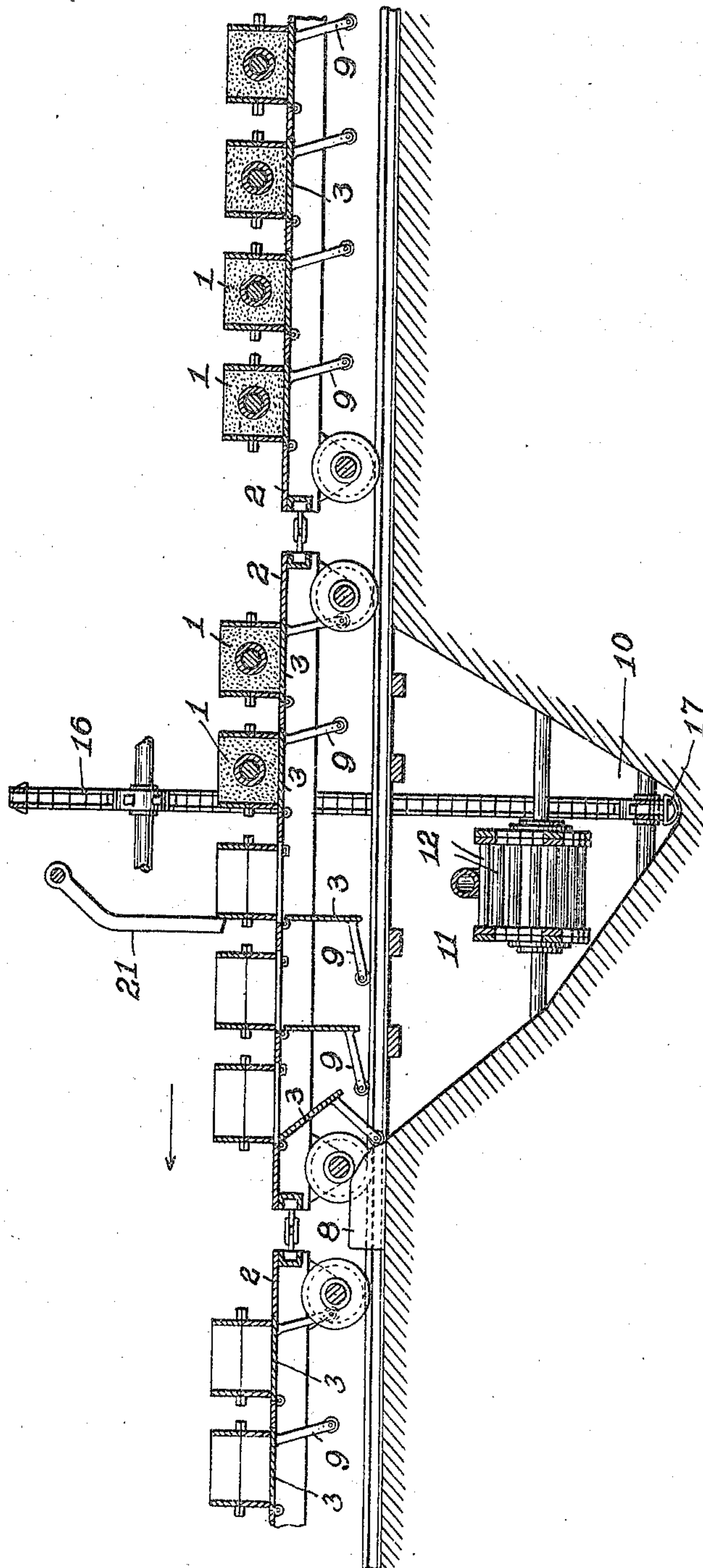
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4 SHEETS—SHEET 3.

FIG. 3.



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4 SHEETS—SHEET 4.

FIG. 4.

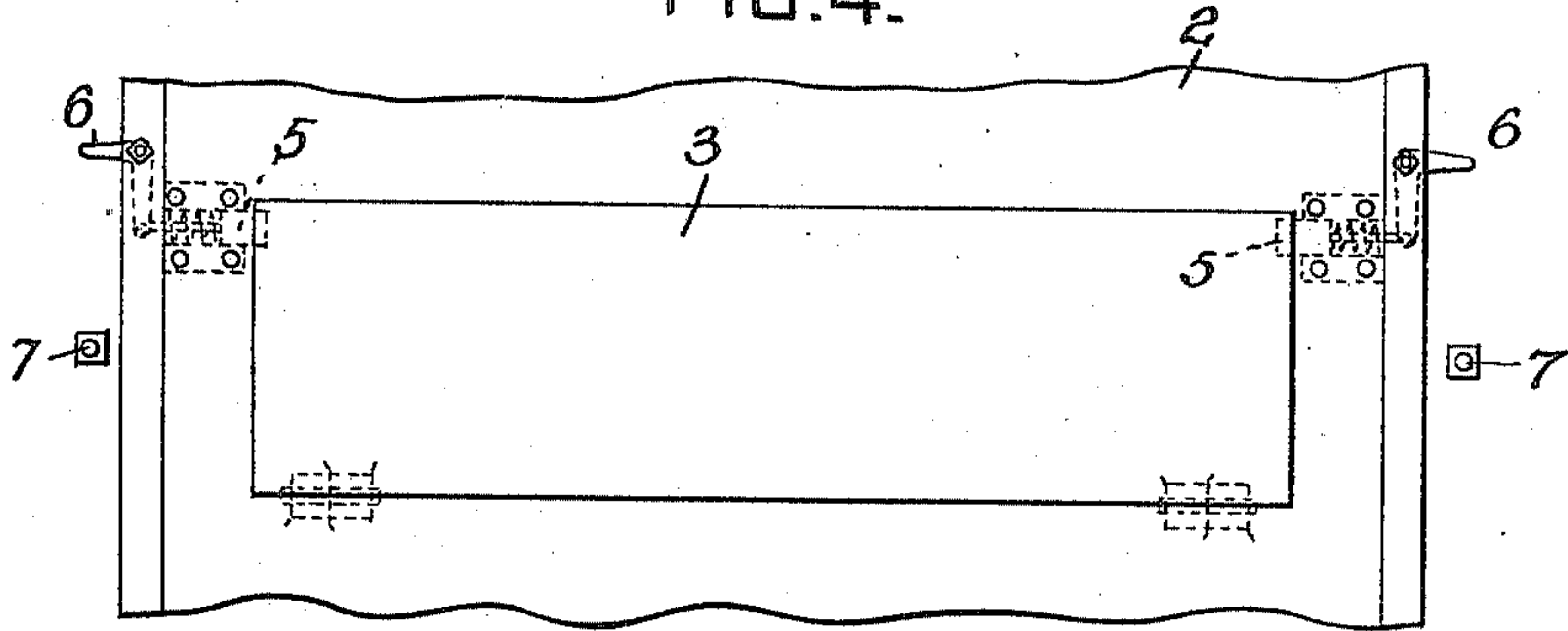
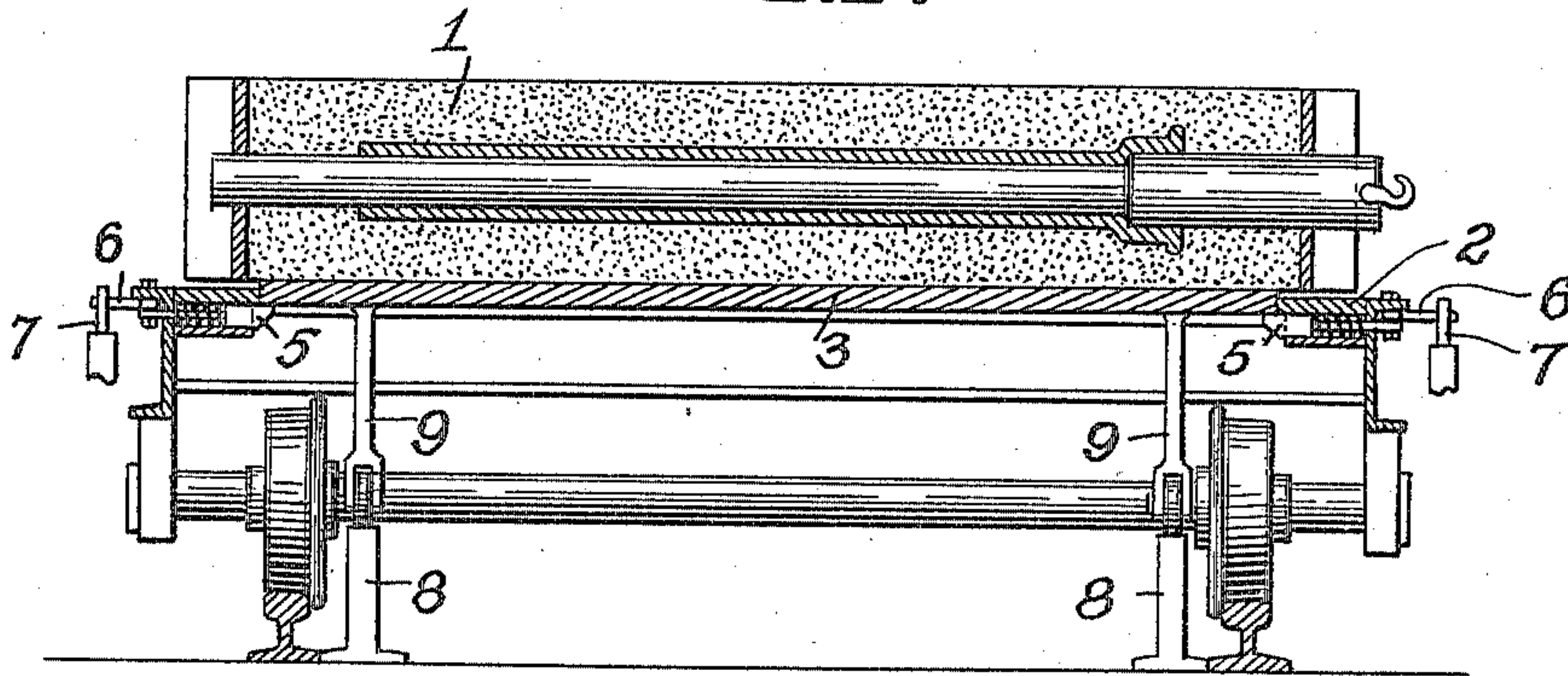


FIG. 5.



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UNITED STATES PATENT OFFICE.

ALBERT R. PRICE, OF JEANNETTE, PENNSYLVANIA.

FOUNDRIY PLANT.

951,576.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed October 21, 1909. Serial No. 523,853.

To all whom it may concern:

Be it known that I, ALBERT R. PRICE, residing at Jeannette, in the county of Westmoreland and State of Pennsylvania, a citizen of the United States, have invented or discovered certain new and useful Improvements in Foundry Plants, of which improvements the following is a specification.

The invention described herein relates to certain improvements in molding apparatus and especially to apparatus for supporting the moldings during teeming and discharging the molds and for the separation of the article formed from the sand.

The invention is hereinafter more fully described and claimed.

In the accompanying drawing forming a part of this specification Figure 1 is a top plan view of my improved apparatus; Fig. 2 is a sectional view on a plane indicated by the line II—II Fig. 1; and Fig. 3 is a sectional view on a plane indicated by the line III—III Fig. 1. Fig. 4 is a plan view of a portion of the platform of the car showing the means of supporting the door in such platform and for releasing the holding means; Fig. 5 is a sectional elevation of a car showing the mold in position thereon and also showing the devices for releasing the door and for closing the same.

In the practice of my invention the molds 1 for the article are either placed on the platform of the car after being formed or the flask may be placed thereon and the mold matrix formed therein while supported by the car. The platforms 2 of the cars are provided with a series of doors 3, the number being dependent upon the length of the car and the width of the flasks. As shown in Fig. 1 these doors are made of a width a little greater than the flasks and of a length approximately equal to the sand portion of the mold, the ends of the flask being supported by the platform of the car beyond the ends of these openings. As shown the doors 3 are hinged so as to drop down when free to move, being normally held in a closed position by means of suitable latches, such for example as that shown, consisting of a spring actuated latch piece 5 normally projecting so as to support the door in closed position and constructed to permit the door to be swung to closed position, the latter automatically pushing back such latches in such closing movement.

In order to open the doors at the proper

time, the latches 5 are connected to one arm of a bell crank lever 6 mounted on the car platform and the opposite arm extended out so as to strike in the movement of the car, a stop or tripping finger 7 located along the track on which the car moves.

In order to close the door after the sand and article have been discharged, blocks 8 having inclined faces are arranged at suitable points along the track and the doors are provided with arms 9 preferably having friction rollers, which will bear upon the inclines 8 and push the door to closed position during the movement of the car.

A pit 10 is formed below the track along which the car passes and in this pit is arranged an endless screen preferably made up of two or more series of connected links 11 and a series of transverse bars 12 connecting the several series of links as clearly shown in Figs. 1 and 2. This endless screen passes around sprocket wheels 13 and 14 mounted on suitable shafts arranged at different heights so that the screen will be inclined to raise an article, as a pipe resting thereon, to a suitable height to be discharged out of the pit. The tripping finger 7 is arranged to release the doors below the several flasks as such doors come into alinement vertically above this traveling screen, thereby permitting the contents of the flask to drop down onto the screen the sand passing down into the bottom of the pit and the article being caught by the traveling screen. It is preferred that this traveling screen should deliver the articles into a tumbling barrel 15 of any suitable construction and arranged with its upper end in position to receive the article from the traveling screen.

In order to remove the sand from the pit, an endless chain 16 passing around suitable guide pulleys and having swinging buckets 17, is so arranged that the buckets will gather up the sand in the pit and carry it up and deliver it to a trough 18 from which it can be conveyed to a point of use by any suitable means known in the art.

When manufacturing pipe the core is formed on a bar which extends through the ends of a flask and is supported by such ends, and hence before the pipe can be discharged this core bar must be drawn out from the flask. To this end suitable means are provided to engage and draw out the core bar, as for example, a fluid pressure cylinder 19 can be conveniently used, the

piston rod 20 being provided at its end with means for engagement with the end of the core bar. This cylinder should be located in advance of the means for releasing the door in the car.

In order to insure the discharge of the contents of the flask suitable means are provided for imparting a jar to the flask after or about the time the door is dropped. This jarring means may conveniently consist of a swinging weight 21 suspended above the line of movement of the car in such manner that the weight will strike against each mold or flask as it passes under the point of suspension. The parts are so constructed and arranged that the weight will escape from one flask and swing down against the next succeeding flask at or about the time that the door of the latter is dropped.

I claim herein as my invention:

1. In a foundry plant, the combination of a platform for the support of the molds, openings in said platform of approximately the internal dimensions of the flask, and doors for closing said openings and supporting the molding material in the flask.

2. In a foundry plant, the combination of a platform for the support of the molds, openings in said platform of approximately the internal dimensions of the flask, doors for closing said openings and supporting the molding material in the flask, and a screen below such opening for the separation of the sand and the article.

3. In a foundry plant the combination of a movable platform for the support of the molds and provided with openings of approximately the internal dimensions of the flask, normally closed doors for said openings, a screen arranged below the plane of movement of the platform and means for opening the doors to permit of the contents of the flask dropping onto the screen.

4. In a foundry plant the combination of a movable platform for the support of the

molds and provided with openings of approximately the internal dimensions of the flask, normally closed doors for said openings, a screen arranged below the plane of movement of the platform, means for opening the doors to permit of the contents of the flask dropping onto the screen and means for closing the doors as the platform is advanced on the discharge of a flask.

5. In a foundry plant the combination of a movable platform for the support of the molds and provided with openings of approximately the internal dimensions of the flask, normally closed doors for said openings, a screen arranged below the plane of movement of the platform means for withdrawing the core bar from the completed article, and means for opening the doors to permit of the contents of the flask dropping onto the screen.

6. In a foundry plant the combination of a movable platform provided with openings of approximately the internal dimensions of a flask, normally closed doors for said openings, a traveling screen arranged below the plane of movement of the platform, and a tumbling barrel arranged to receive articles deposited on the screen.

7. In a foundry plant the combination of a movable platform for the support of the molds and provided with openings of approximately the internal dimensions of the flask, normally closed doors for said openings, a screen arranged below the plane of movement of the platform, means for opening the doors to permit of the contents of the flask dropping onto the screen and means for jarring the mold.

In testimony whereof, I have hereunto set my hand.

ALBERT R. PRICE.

Witnesses:

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FRANCIS J. TOMASSON.