Feb. 22, 1927. 1,618,700

J. DRAGON

WORK HANDLING DEVICE

Filed Jan. 13. 1926

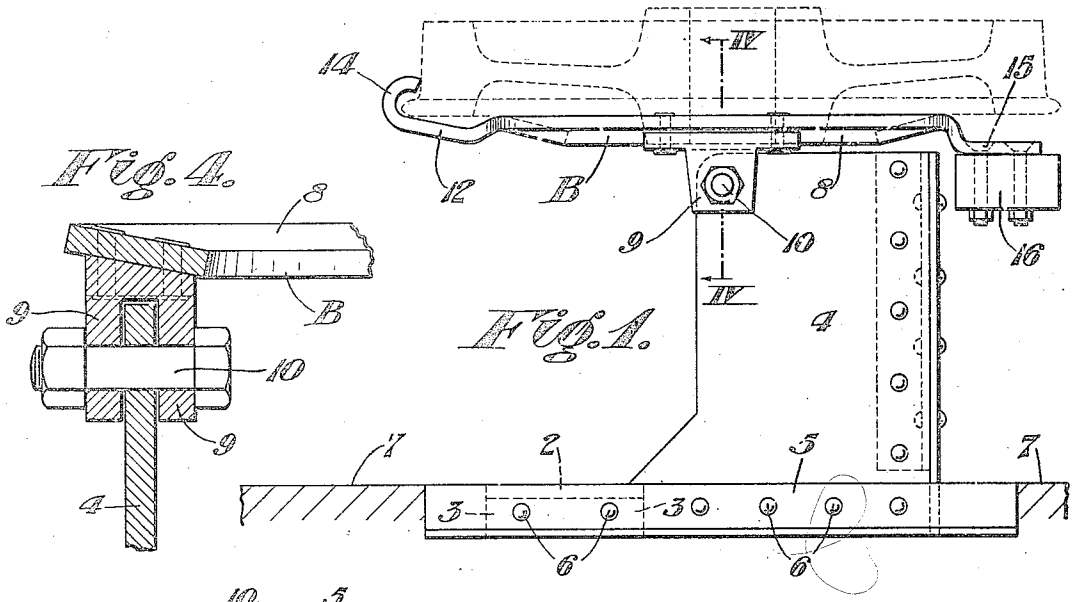


Fig. 1.

Fig. 4.

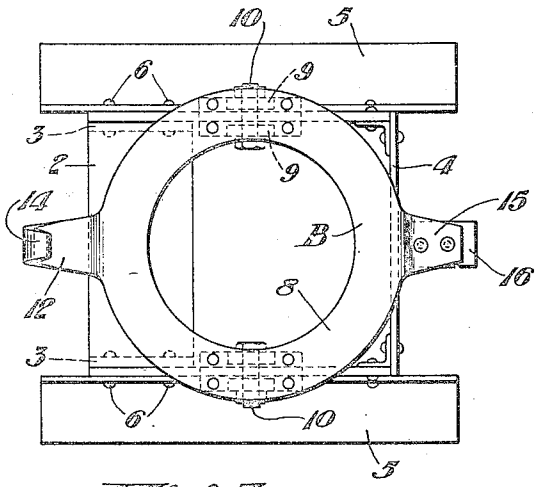


Fig. 3.

Fig. 2.

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Patented Feb. 22, 1927. 1,618,700

UNITED STATES PATENT OFFICE.

JOSEPH DRAGON, OF McKEES ROCKS, PENNSYLVANIA.

WORK-HANDLING DEVICE.

Application filed January 13, 1926. Serial No. 81,000.

This invention relates to work handling devices and more particularly to devices especially adapted for handling and tilting car-wheels and the like, as they are removed from machines.

Car-wheels and similar heavy articles after being machined are lifted from the machine in a flat position and must, therefore, be deposited on the floor or other resting place in a flat or sidewise position, and due to the practice of workmen rolling these heavy articles from place to place in the mill for other operations, it is necessary for the workmen to lift the wheels on edge. The lifting of the heavy wheels is very hard labor and often causes serious injury to the workmen.

The present invention provides a novel form of work-support adapted to receive the wheel or similar work-piece when it is lifted from a machine, and to tilt said work-piece into a substantially vertical position so that it may be readily rolled to another position without the necessity of lifting.

In the drawings:

Figure 1 is a side elevation of a work handling device constructed in accordance with my invention.

Figure 2 is a similar view showing the device tilted to deliver the work-piece.

Figure 3 is a plan view.

Figure 4 is a sectional detail on the line IV—IV of Figure 1.

Referring more particularly to the drawings, the numeral 2 designates the base plate, which is bent downwardly at each side to form side flanges 3. A three-sided standard 4 is fitted around the base plate 2 and anchor angles 5 are secured along each side of the standard 4. The side plates of the standard and angles 5 are secured to the flanges 3 of the base plate by a series of rivets 6. The standard 4 and base plate 2 form a substantial base for the device which is adapted to be firmly mounted in the floor structure so that the top face of the base plate 2 is on the floor line, which is designated by the numeral 7.

A wheel or work supporting table B is pivotally supported on the standard 4 and comprises a top in the form of a dished ring member or cradle 8 provided with two pairs of ears 9 adapted to fit over the side plates of the standard 4 and to receive the pivot pins or bolts 10.

The top 8 is provided with an extension or lug 12 at its forward side which lug is bent upwardly and inwardly to form a hook portion 14 adapted to receive the flange of a wheel and prevent the displacement of the wheel during the tilting of the top 8. The top 8 is provided at its rear side, at a point diametrically opposite the lug 12 with an extension or lug 15 which carries a counterweight 16 adapted to normally maintain the top 8 in its horizontal position and to automatically return the top to horizontal position after it has been tilted to discharge a wheel.

The top 8 may be in the form of a solid plate if desired. However, it is shown in the form of a ring so as to provide clearance for the wheel hub.

In operation after a wheel has been machined, the wheel is engaged by a pair of tongs which fit under the wheel rim, and lifted by a suitable crane. The crane deposits the wheel on the table B in a sidewise or flat position. The operator then disengages the tongs and tilts the table B, until it assumes a substantially vertical position, the wheel may then be readily rolled off the table and to any suitable point for storage or other operations, without the necessity of manually lifting the wheel on its edge as has been the practice heretofore. When the wheel is removed from the table B the counterweight 16 will automatically return the table to its horizontal position in readiness to receive another wheel.

It will be understood that I do not wish to be limited to the specific construction or use of this device, since it may be used for handling various heavy work-pieces, and various modifications may be made without departing from the scope of my invention as defined in the appended claims.

I claim:

1. A wheel handling device adapted to receive wheels in a horizontal position and deliver them in a substantially vertical position, comprising a supporting base composed of a base plate and a supporting standard, a horizontally positioned wheel receiving table pivotally mounted on said standard, said table comprising a circular dished ring provided with means for forming a pivotal connection with said standard, said table being adapted to be tilted into a substantially vertical position to deliver the wheel, and means for maintaining the wheel on said table during the tilting movement.

2. A wheel handling device adapted to receive wheels in a horizontal position and deliver them in a substantially vertical position, comprising a supporting base composed of a base plate and a supporting standard, a horizontally positioned wheel receiving table pivotally mounted on said standard, said table comprising a circular dished ring provided with means for forming a pivotal connection with said standard, said table being adapted to be tilted into a substantially vertical position to deliver the wheel, means for maintaining the wheel on said table during the tilting movement, and means for returning and normally maintaining said table in its horizontal position.

3. A wheel handling device adapted to receive wheels in a horizontal position and deliver them in a substantially vertical position, comprising a fixed supporting standard, a horizontally positioned wheel receiving table pivotally mounted on said standard, said table being adapted to be tilted into a substantially vertical position to deliver the wheel, means formed integral with said table for maintaining the wheel on said table during the tilting movement, and a counterweight fixedly secured to said table for returning and normally maintaining said table in its horizontal position.

In testimony whereof, I have hereunto set my hand.

JOSEPH DRAGON.