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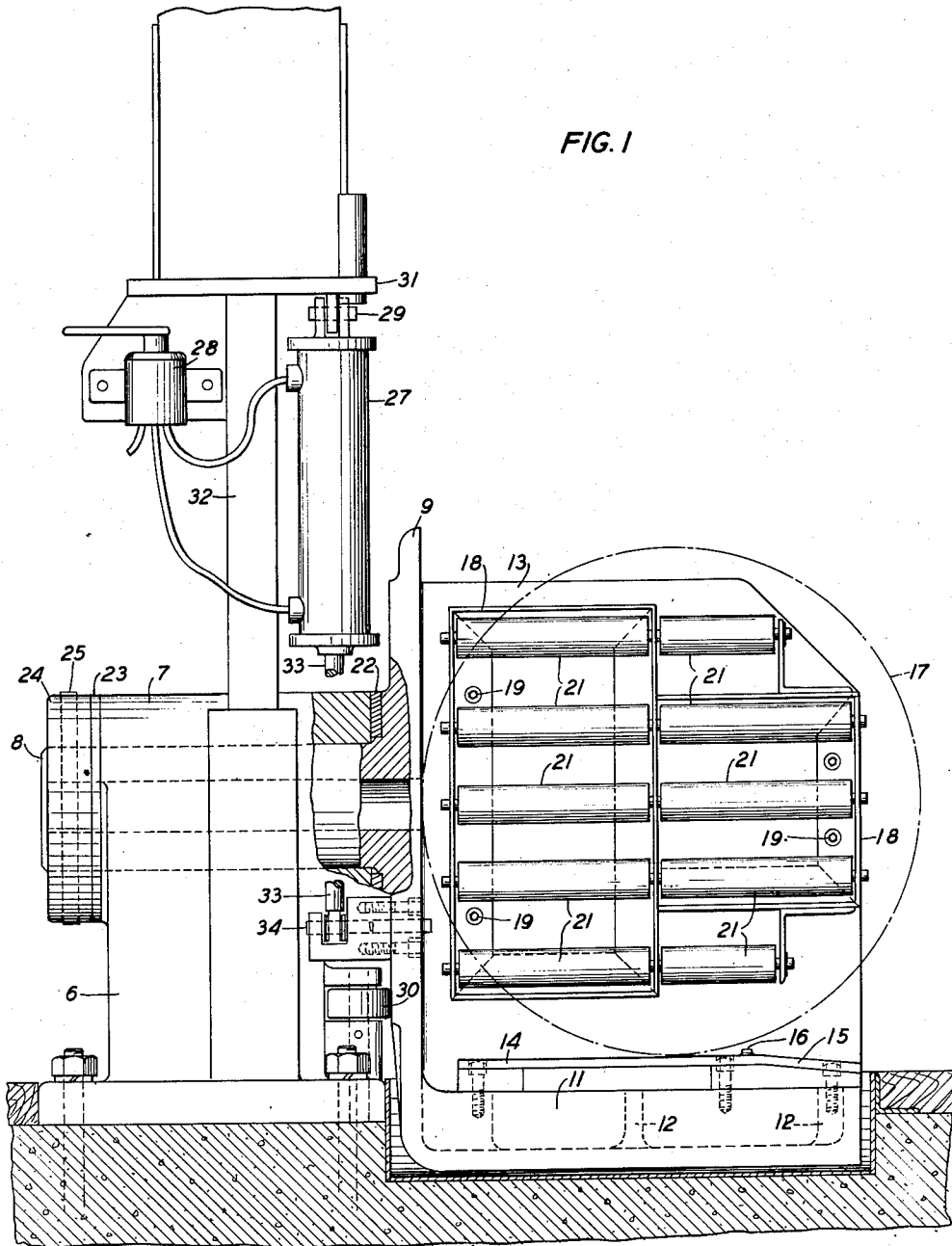
W. BERTHOLD ET AL
ARTICLE HANDLING APPARATUS

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FIG. 1



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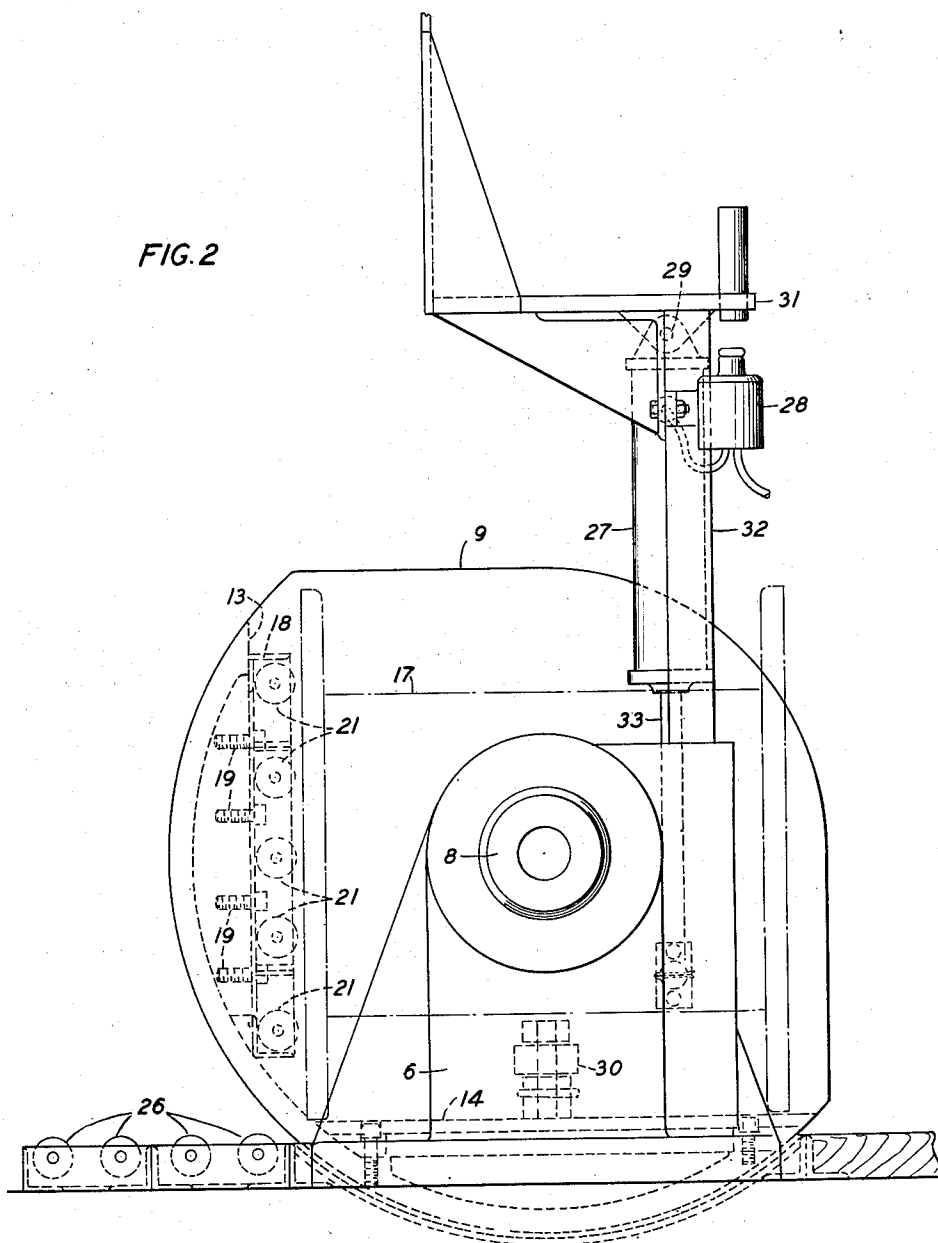
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FIG. 2



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ARTICLE HANDLING APPARATUS

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6 Claims. (Cl. 214—130)

This invention relates to an article handling apparatus and more particularly to an apparatus for handling reels of wire.

It is frequently necessary to change a heavy reel of wire from a horizontal to a vertical position or vice versa.

An object of the present invention is to provide an apparatus for readily changing the position of a reel of wire or other articles.

In accordance with one embodiment of the invention a cradle for handling articles is provided which is mounted in a single trunnion bearing so as to provide a maximum of approachable space to the carriage.

It is believed that a complete understanding of the invention may be had by reference to the following description taken in conjunction with the accompanying drawings, in which—

Fig. 1 is a front elevation of the apparatus partly in section, and

Fig. 2 is an elevational view viewed at an angle of 90° from the view in Fig. 1.

Referring now more in detail to the drawings, a standard 6 is provided supporting an elongated trunnion bearing 7. Mounted in this bearing is a trunnion shaft 8 which may be cast integral with an end wall 9 of the cradle or carriage on which the articles to be handled are carried. Integral with the end wall 9 is a platform 11 having supporting ribs 12, and at right angles to the platform 11 is a second platform 13 which may also be cast integrally with the platform 11 and the end wall 9. The platform 11 may have a floor 14 secured thereto provided with a ramp 15, and a cleat 16 is welded to the floor to prevent an article such as a reel 17 from rolling off of the carriage once it is placed thereon. The platform 13 is provided with an angle iron frame 18 secured to the platform by bolts 19. This frame has a plurality of rolls 21 mounted therein to facilitate the movement of an article when the flat side of the article is resting on the platform 13. The bolts securing the floor 14 and the bolts securing the frame 18 are similarly positioned so that the floor and frame are interchangeable. In this way the apparatus may be arranged to deliver an up-ended reel or cylinder in either of two directions. Between the end wall 9 and the bearing 7 a ring 22 for taking up of wear is located. At the other end of the bearing a similar ring 23 is provided and the end of the shaft 8 is provided with a ring 24 secured to the shaft by a pin 25 to prevent the shaft from being withdrawn from the bearing.

When the apparatus is used for supplying reels

of wire to a wire drawing machine a reel 17 is rolled up the ramp 15 and over the cleat 16. The carriage is then rotated through an angle of 90° so that the head of the reel will rest on the rolls 21. Similar rolls 26 may be mounted adjacent the carriage so that the reel in its vertical position may be moved into a wire drawing machine in its vertical position. Due to the single trunnion bearing the approach to the carriage or cradle is unobstructed. In order to take some of the strain from the shaft 8 a roller 30 is mounted under the shaft in vertical alignment therewith and rolls against the flat portion of the surface of end wall 9.

The carriage may be rotated from one position to another by means of an air cylinder 27 controlled by a valve 28. The air cylinder is supported on a pivot 29 secured to a shelf 31 on a standard 32. Within the cylinder 27 is a piston attached to a connecting rod 33 the opposite end of which is pivotally secured to a pivot 34 on end wall 9. Thus in one position of the piston in cylinder 27 the cradle is in the position shown in Fig. 1 for receiving or discharging a reel to the floor and in the other position of the piston the cradle is rotated through an angle of 90° for discharging or receiving a reel from the wire drawing apparatus.

It will be understood that the nature and embodiment of the invention herein described is merely illustrative and that many changes and modifications may be made therein without departing from the spirit and scope of the invention.

What is claimed is:

1. In a device for handling articles, a pivotal cradle open at one end and having an end wall at the other end and a pair of material supporting platforms extending perpendicularly from said wall, and a single horizontal pivot secured to said end wall for rotating said cradle to change the angular position of the axis of an article.
2. In a device for handling articles, a pivoted cradle having a pair of platforms substantially at right angles to each other and an end wall, the other end of the cradle being unobstructed, a shaft secured to said end wall, and a single trunnion bearing for said shaft for changing the angular position of the axis of an article.
3. In a device for handling material, a cradle having an end wall, a trunnion bearing supporting said end wall, a portion of said end wall forming a track, and a roller under said bearing for rolling on said track to support said wall.
4. In a device for handling articles, a pivoted cradle for receiving material from one horizontal

- direction and delivering it in a horizontal direction at right angles thereto comprising a pair of platforms substantially at right angles to each other for changing the axis of an article through a right angle, and a trunnion bearing at one end of the cradle for pivotally supporting the cradle said platforms being in planes parallel to the axis of said trunnion bearing.
5. In a device for handling material, a cradle including an end wall, a pivotal mounting for said end wall, the opposite end of the cradle

being unobstructed, and means including a roller for assisting said pivot in supporting the cradle.

6. In a device for handling articles, a cradle comprising two platforms and an end wall the opposite end of the cradle being unobstructed, and a pivotal mounting for said end wall substantially in the center of said wall for changing the angular position of the axis of an article.

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