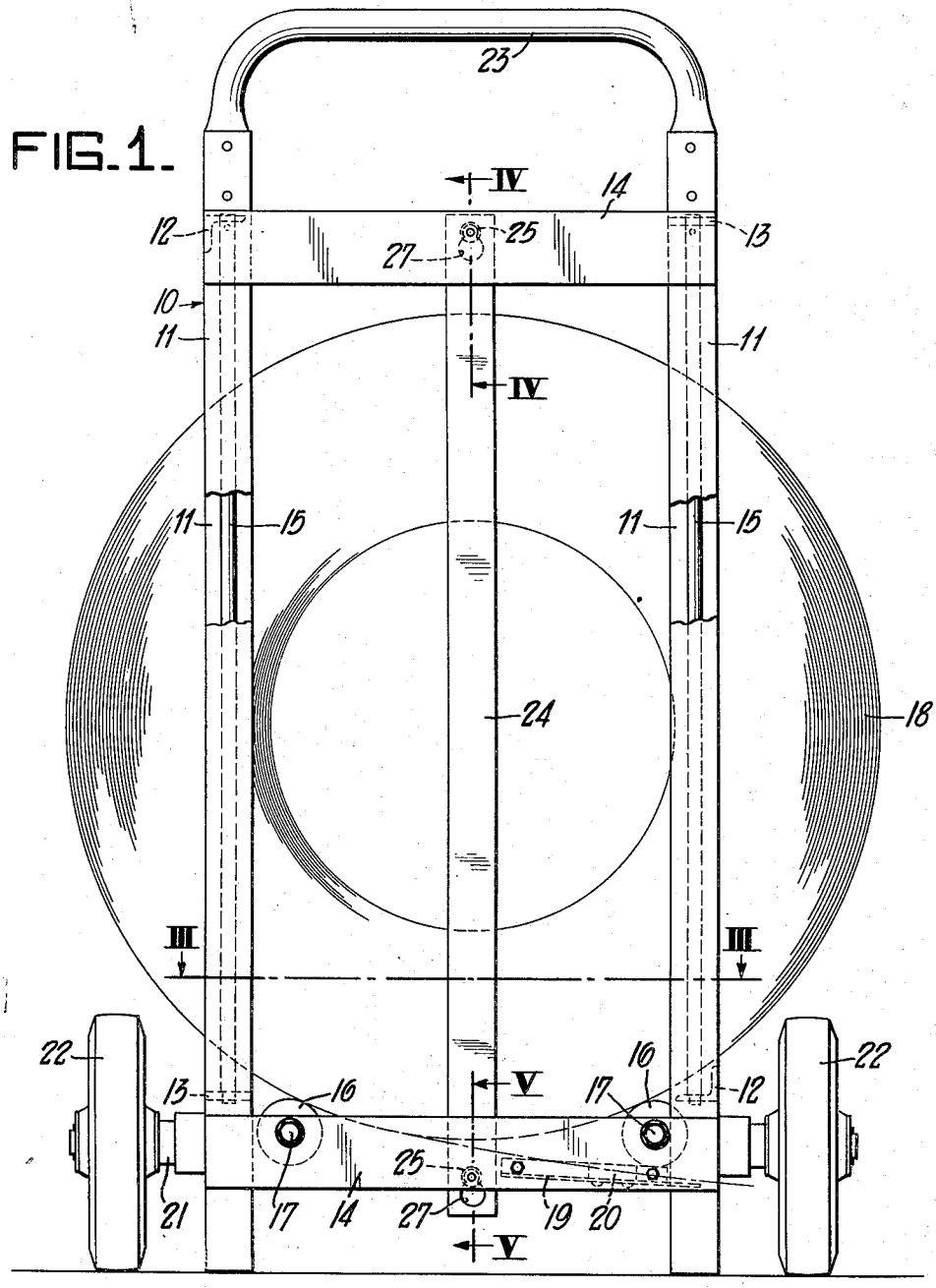
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ADJUSTABLE RACK

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FIG. 1.




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FIG. 2.

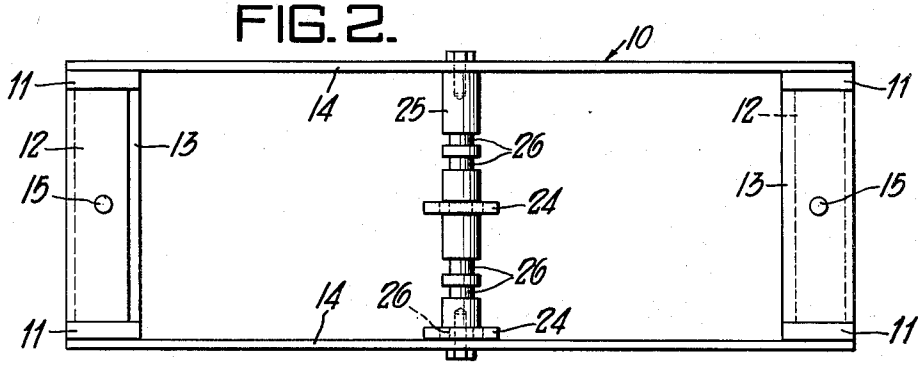



FIG. 3.

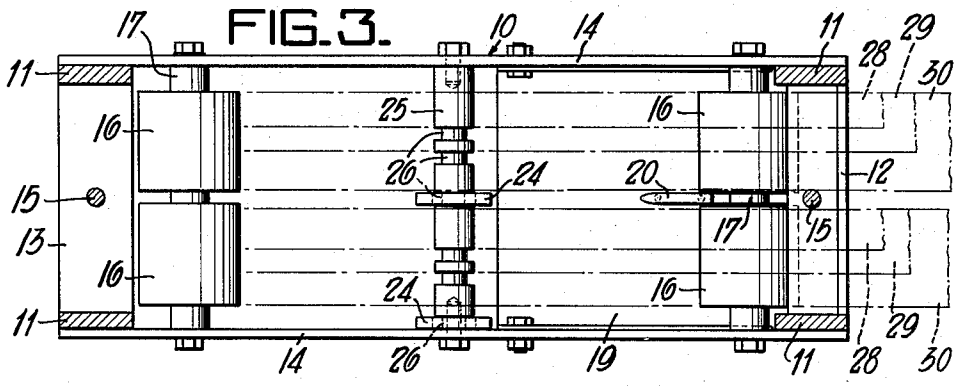



FIG. 5.

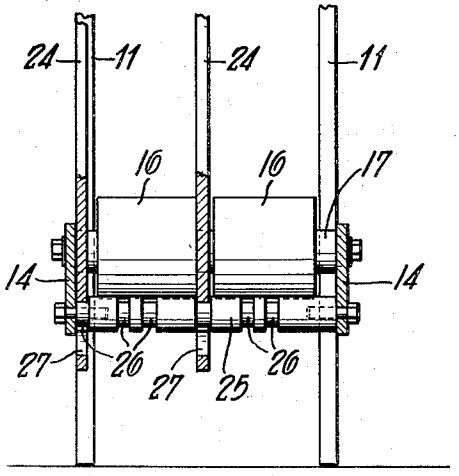
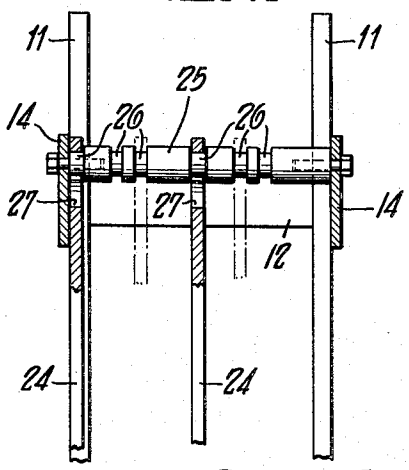



FIG. 4.




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# UNITED STATES PATENT OFFICE

2,660,381

## ADJUSTABLE RACK

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Application August 8, 1951, Serial No. 240,961

7 Claims. (Cl. 242—105)

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This invention relates to a rack for holding flat circular articles of various widths or thicknesses and, in particular, to an adjustable rack adapted for holding pancake coils of flat-band strapping and permitting them to be unrolled individually whereby successive lengths may be drawn out from any coil and cut off for use.

One object of the invention is to provide a rack having adjustable means effective closely to confine coils of different widths. A further object is to provide a rack which will permit lengths of strapping to be drawn out readily to any desired length and yet will confine the coil against accidental displacement. A further object is to provide a rack which is adapted to stand alone yet is easily portable and adapted to be fitted with wheels if desired for maximum portability.

In a prefered embodiment, my rack includes a cage having the outline of a right rectangular prism, made up of spaced posts, cross bars and side bars. Spaced rollers are journaled in the lower part of the cage adapted to support coils of strapping. Upper and lower locator bars extend between the side bars, intermediate the cross bars, and have notches spaced therealong. Coil-confining bars extend between the locator bars and have slots adapted to cooperate with the notches therein. The confining bars may be shifted manually along the locator bars to set them for properly positioning coils of different widths. The cage may be fitted with wheels by mounting an axle therefor on brackets secured to the posts.

A complete understanding of the invention may be obtained from the following detailed description and explanation thereof which refer to the accompanying drawings illustrating the present preferred embodiment. In the drawings,

Figure 1 is an elevation, with parts broken away, showing the cage equipped with an axle, wheels and a manipulating handle;

Figure 2 is a plan view of the cage alone, omitting the supporting rollers;

Figure 3 is a horizontal section taken along the plane of line III—III of Figure 1, omitting the axle and wheels; and

Figures 4 and 5 are partial vertical sections taken along the planes of lines IV—IV and V—V, respectively, of Figure 1.

Referring in detail to the drawings, the rack of our invention is a cage indicated generally at 10 having the outline of a right rectangular prism. The cage is composed of spaced corner posts 11 connected adjacent their tops and bottoms by upper and lower cross bars 12 and 13

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and side bars 14. Spacer rods 15 extend between the upper and lower cross bars at each end of the cage. Two supporting rollers 16 are journaled end-to-end on each of two spaced shafts 17 extending between the lower side bars. These rollers are adapted to support coils of strapping such as that indicated at 18, which may be inserted into the cage through either open end thereof, one on each side of the rods 15. A guide chute 19 of channel section extends between the lower side bars from about the middle thereof toward one end and is secured to such side bars. The chute guides the outer ends of the coils of strapping laterally in a generally horizontal path toward one end of the cage. A separator tongue 20 is secured to the upper surface of the chute.

The cage 10 will stand erect on the lower ends of posts 11 and may easily be lifted and carried even when loaded with two full coils of strapping. If desired, however, an axle 21 may be mounted on one side of the cage by means of any suitable brackets (not shown) and fitted with wheels 22. In this case, a handle 23 is preferably attached to the top of the posts on the same side as the axle, whereby the cage may be manipulated in the manner of a hand truck, to move the coils from place to place.

Flat-band strapping is usually made in a range of widths, e. g., ¾", 1¼", and 2". Our rack is adapted to accommodate the maximum width in general use and, furthermore, has special provisions for holding coils of the narrower widths in erect position and preventing the tilting thereof. Such means takes the form of coil-confining bars parallel to the posts and adjustable across the width of the cage. The coil-confining bars, shown at 24, are carried on upper and lower locator bars 25 extending between the side bars 14 intermediate the cross bars 12 and 13. The locator bars are round in section and have circumferential notches 26 spaced therealong. Bars 24 have keyhole slots 27 adjacent their ends, the larger-diameter portions whereof will admit the larger-diameter portions or lands of bars 25, while the smaller-diameter portions of the slots fit snugly around the reduced-diameter portions of bars 25, i. e., the bottoms of notches 26.

Bars 24 may be shifted from one set of notches to another merely by raising them to bring their larger-diameter portions into alinement with bars 25, and then moving them laterally as indicated in chain lines in Figure 4. It will be noted that bars 25 have notches for positioning bars 24 to confine coils of each of several widths shown in

chain lines at **28**, **29** and **30**. One of the bars **24** (the upper one in Figures 2 and 3) confines a coil between itself and two of the posts **11** and the other confines a coil between itself and spacer rods **15**. This provides a stable condition of the coils when the rack is tilted for travel on wheels **22** since, under that condition, the lower sides of the coils bear against widely spaced members (posts **11** and rods **15**). When coils of the maximum width are being used bars **24** are not needed to confine them and are placed in the positions shown in solid lines in Figures 2 through 5, the coils being confined between posts **11** and rods **15**.

It will be apparent from the foregoing that our invention provides a simple rack adapted to receive coils of band strapping of different widths and support them so their outer ends may be easily pulled out and cut off. The adjustment of the coil-confining bars is easily made and the entire structure is simple and inexpensive to manufacture. Coils of strapping may be easily inserted in the rack and removed therefrom when a change in strapping width is desirable.

Although we have disclosed herein the preferred embodiment of our invention, we intend to cover as well any change or modification therein which may be made without departing from the spirit and scope of the invention.

We claim:

1. A rack for holding articles the thickness of which is small in comparison to their other dimensions, comprising a cage made up of spaced posts, cross bars and side bars extending between adjacent posts, a locator bar extending between the side bars intermediate the cross bars, said locator bar having notches spaced therealong, and an article-confining bar extending parallel to said posts, shiftable along said locator bar and having a slot adapted to cooperate with said notches whereby the last-mentioned bar may be selectively set into one of a plurality of positions.



2. The apparatus defined by claim 1 characterized by a guide chute near the bottom of the cage extending laterally toward one end thereof.

3. The apparatus defined by claim 1 characterized by spaced supporting rollers journaled transversely in said cage near the bottom thereof whereby pancake-shaped articles disposed thereon may be rotated about their own axes.

4. The apparatus defined by claim 3 characterized by a guide chute below said rollers extending from about the center of the cage toward one end thereof.

5. The apparatus defined by claim 1 characterized by a plurality of locator bars, one adjacent the top of the cage and one adjacent the bottom, said confining bar having slots adapted to engage the notches in both locator bars.

6. The apparatus defined by claim 1 characterized by said locator bar being cylindrical and the notches therein extending circumferentially thereof.

7. The apparatus defined by claim 6 characterized by said slots being of keyhole shape, and said locator bars extending through said slots.

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