

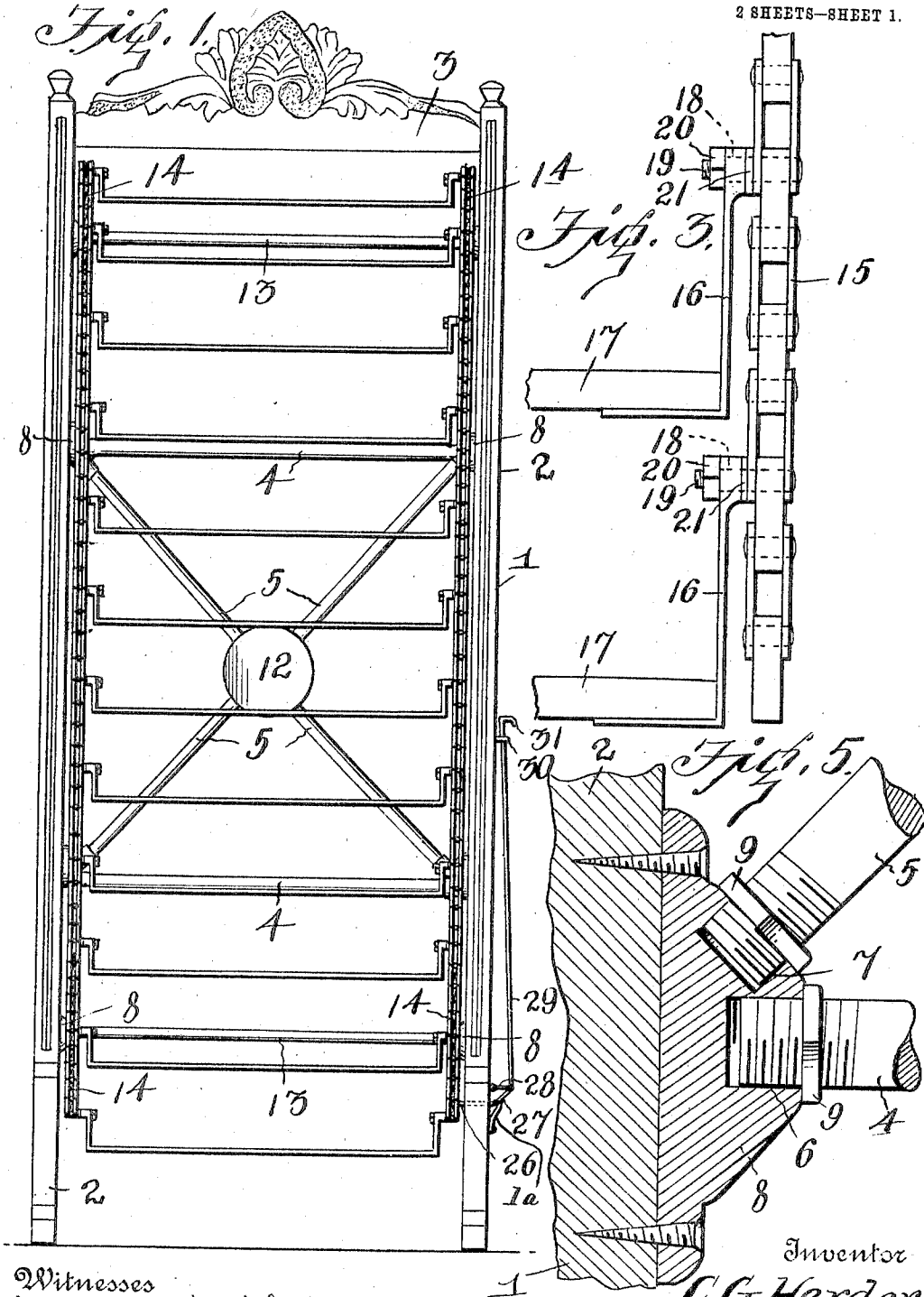
No. 811,720.

PATENTED FEB. 6, 1906.

C. G. HERDER.
DISPLAY RACK.

APPLICATION FILED JUNE 12, 1905.

2 SHEETS—SHEET 1.



Witnesses
Jas. A. Koehl.
C. H. Griesbauer.

Inventor
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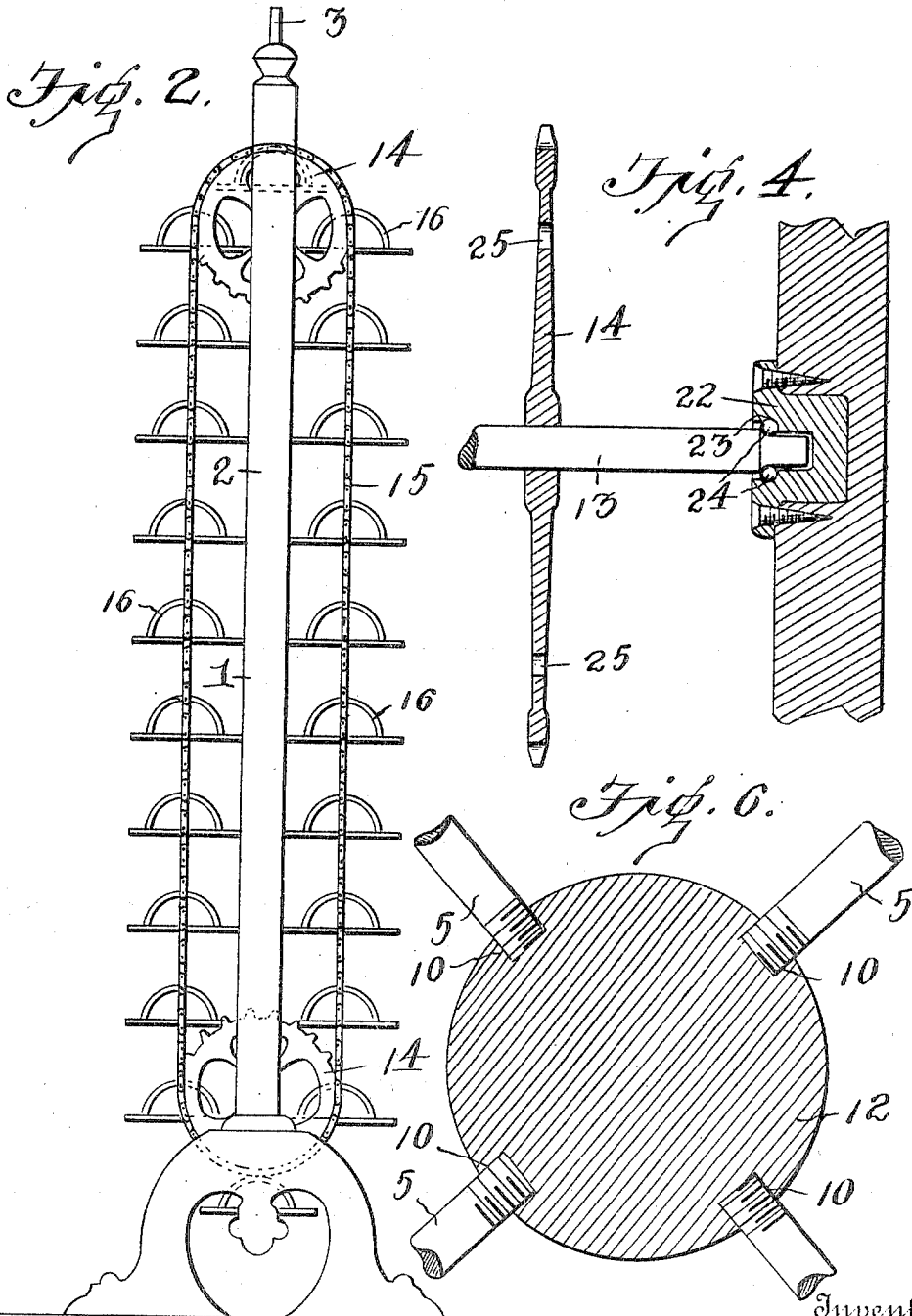
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UNITED STATES PATENT OFFICE.

CHARLES G. HERDER, OF BLANCHESTER, OHIO.

DISPLAY-RACK.

No. 811,720.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed June 12, 1905. Serial No. 264,896.

To all whom it may concern:

Be it known that I, CHARLES G. HERDER, a citizen of the United States, residing at Blanchester, in the county of Clinton and State of Ohio, have invented certain new and useful Improvements in Display-Racks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in display-racks.

The object of the invention is to provide a rack upon which all varieties of merchandise may be displayed.

A further object is to provide a display-rack having a series of displaying-receptacles mounted upon endless conveyers, whereby said receptacles may be continuously moved over and around the rack-frame.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a front elevation of a display-rack constructed in accordance with the invention. Fig. 2 is a side view of the same. Fig. 3 is a vertical sectional view, on an enlarged scale, of a portion of one stretch of the chain, showing the manner of connecting the shelf-brackets thereto. Fig. 4 is a similar view of a portion of the frame, showing the manner in which the sprocket-wheel shafts are journaled therein. Fig. 5 is a similar view of a portion of the frame, showing the manner of connecting the ends of the brace-rods thereto; and Fig. 6 is a side view, partly in section, of the casting for connecting the inner ends of the diagonal brace-rods of the supporting-frame.

Referring more particularly to the drawings, 1 denotes a supporting-frame consisting of upright parallel side bars 2, which are connected at their upper end by an ornamental cross-bar 3 and are connected midway their ends by means of horizontal brace-bars 4 and diagonal brace-bars 5. The outer ends of the brace-bars 4 and 5 are provided with right-hand threads, while the inner ends of the same are provided with left-hand threads. The outer ends of the brace-bars are adapted to be screwed into threaded sockets 6 and 7, formed in the castings 8, which are suitably connected to the side bars 2 of the frame,

said sockets being provided with threads similar to those formed on the engaging ends of said brace-bar. On the threaded outer ends of the bars 4 and 5 are screwed jam-nuts 9, whereby said bars are locked against movement in said sockets and the side bars 2 are maintained in parallel relation. The inner threaded ends of the diagonal brace-bars 5 are adapted to be screwed into threaded sockets 10, formed in a casting 12, arranged in the center of the rack-frame, as shown, said casting being here shown and is preferably in the form of a circular plate or disk.

Arranged in the upper and lower ends of the side bars 2 of the frame are horizontal transversely-disposed shafts 13, upon which, adjacent to the side bars 2, are fixedly mounted sprocket-wheels 14. Around the sprocket-wheels 14 are adapted to be passed endless sprocket-chains 15, to which are connected display-shelf brackets 16. These brackets are preferably in the form of a semicircular bar, the lower ends of which are bent laterally at right angles and are secured to the ends of display-shelves 17. In the semicircular portion of the brackets, midway between the ends of the same, is formed an aperture 18, through which is adapted to pass the end of a stud-bolt 19, upon the inner threaded end of which is adapted to be screwed a retaining-nut 20. The bolt 19 preferably forms one of the bolts or rivets of the sprocket-chains 15, the outer ends of said bolts being provided with a head, while upon the opposite end of the same, between the upper end of the bracket 16 and the adjacent side of the chain-link, is arranged a washer 21. By this arrangement the brackets 16 are adapted to have a loose pivotal connection with the bolt 19, whereby the shelves will swing freely in a depending position from said chains, so that when said shelves pass over the upper sprocket-wheels and below the lower sprocket-wheels they will always assume a horizontal position, thereby supporting the goods carried thereby without danger of said goods falling from the shelves.

The ends of the sprocket-wheel shafts 13 are preferably reduced, said reduced ends having an antifrictional engagement with the side bars of the frame by means of bearing-boxes 22, in which are formed annular ball-races 23 to receive an annular series of bearing-balls 24, with which said reduced ends of the shaft 13 are engaged. The lower sprocket-wheel 14 on one end of the lower shaft 13 is

provided with an annular series of apertures 25, with one of which is adapted to be engaged a pin 26, which is slidably mounted in the lower portion of the side bar 2 and projected by a spring 1^a, the outer end of said pin being connected by a link 27 to a hinged laterally-projecting arm or lever 28, to the outer end of which is pivotally connected the lower end of an operating-rod 29, the upper end of which is slidably connected to the side bar 2 by a guide eye or loop 30. The upper end of the rod 29 is provided with a finger-piece 31, by which said rod may be pulled upwardly to disengage the spring-projected pin 26 from the apertures 25 in the sprocket-wheel 14. By means of this arrangement the pin 26 may be projected by a spring 1^a into the apertures 25, thereby locking the wheel 14 and the revolving shelves against movement. The sprocket-chains and display-shelves carried thereby may be operated by suitable means to revolve the same in one direction or the other.

A display-rack constructed and arranged as herein shown and described will be found suitable for displaying any variety of merchandise, and by means of the endless series of moving shelves a large quantity of goods may be displayed thereon.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the

invention will be readily understood without requiring a more extended explanation.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a display-rack, the combination with a supporting-frame comprising upright parallel side bars, a cross-bar connecting the upper ends of said side bars, diagonally and horizontally disposed brace-bars, castings secured to said side bars, said castings having formed therein threaded sockets to receive the threaded outer ends of said brace-bars, a centrally-disposed casting having threaded sockets formed therein to receive the threaded inner ends of said diagonal brace-bars, and endless conveyer mechanism arranged on said supporting-frame, display-shelves carried by said mechanism, and means to pivotally connect said shelves with said conveyer mechanism whereby the former will always assume a horizontal position while being carried around by said conveyer mechanism, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES G. HERDER.

Witnesses:

S. R. SMITH,
H. C. LUCAS.