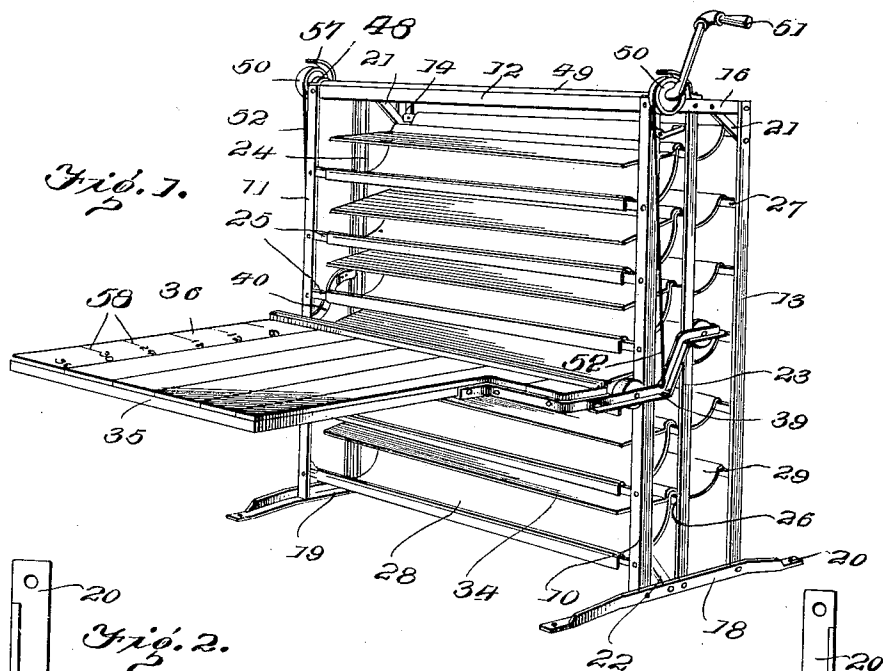
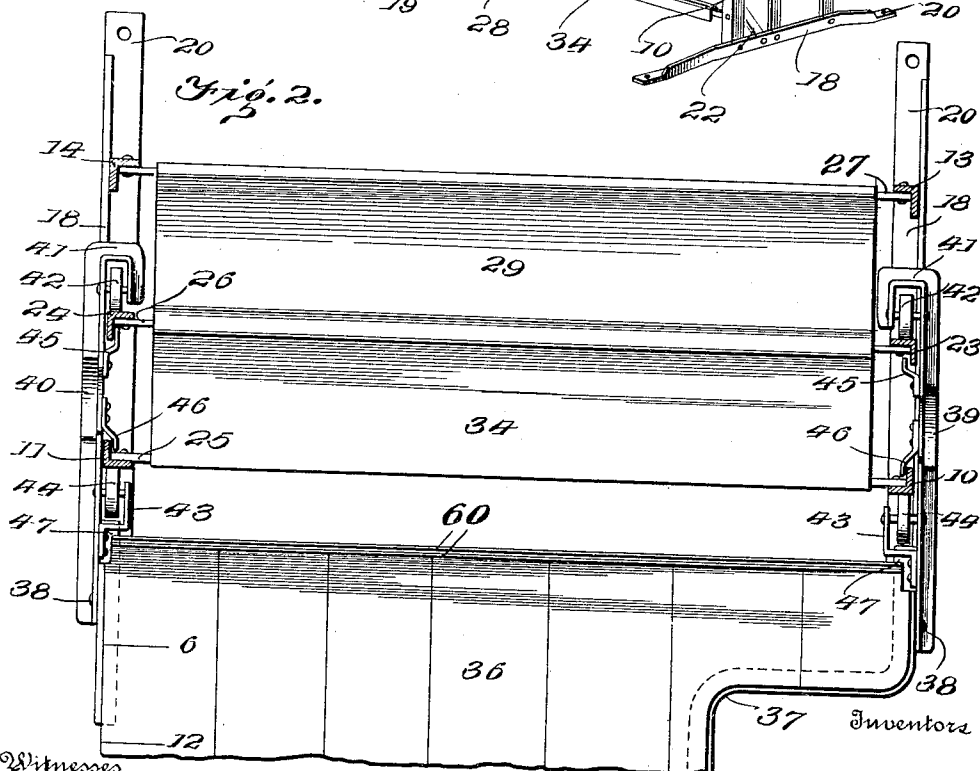


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G. B. PARKER & F. W. GROVER.
WIRE SCREEN RACK.
APPLICATION FILED APR. 17, 1913.

Patented July 4, 1916.
2 SHEETS—SHEET 1.



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By

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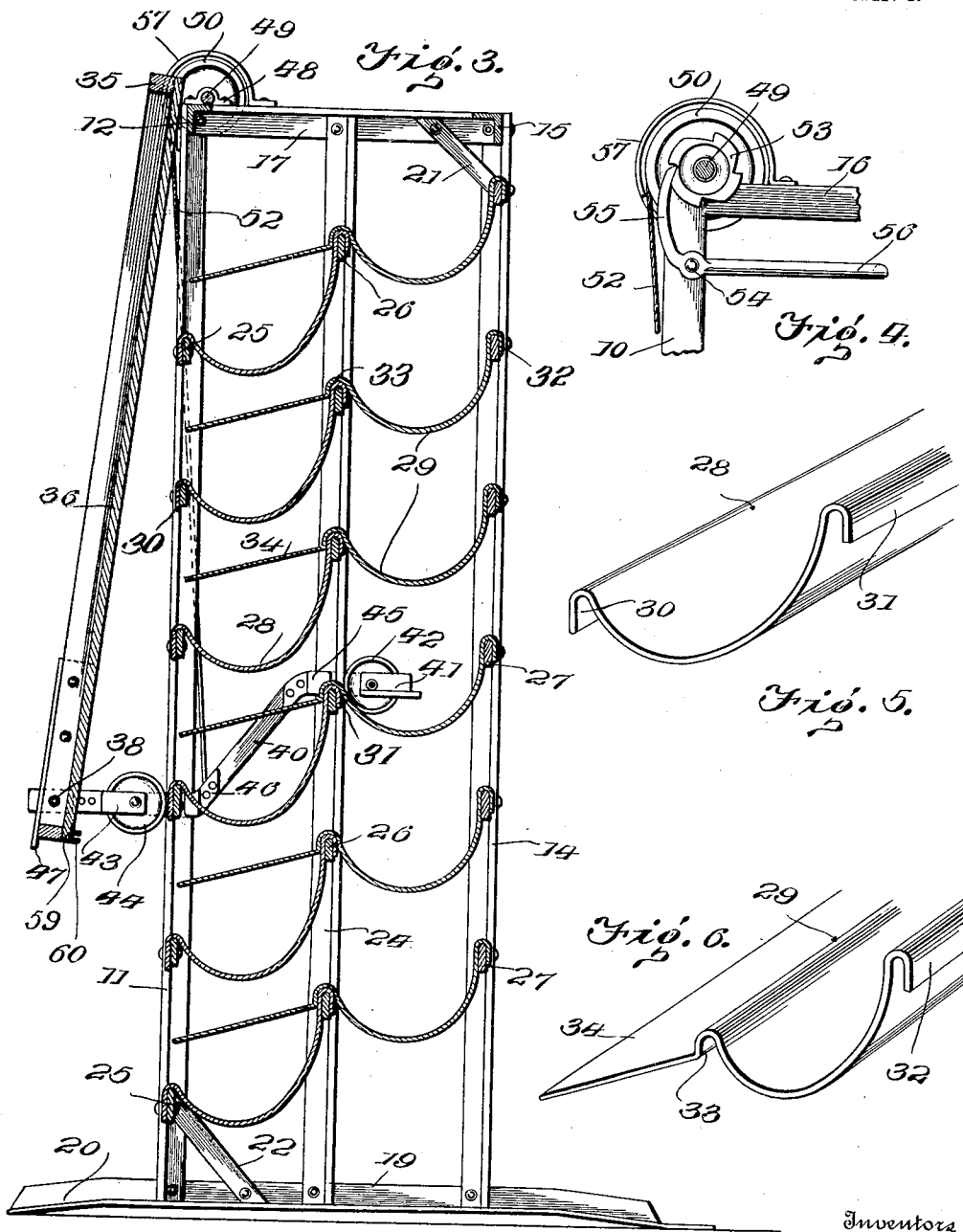
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UNITED STATES PATENT OFFICE.

GEORGE B. PARKER AND FRED W. GROVER, OF WENATCHEE, WASHINGTON.

WIRE-SCREEN RACK.

1,189,380.

Specification of Letters Patent.

Patented July 4, 1916.

Application filed April 17, 1913. Serial No. 761,772.

To all whom it may concern:

Be it known that we, GEORGE B. PARKER and FRED W. GROVER, citizens of the United States, residing at Wenatchee, in the county of Chelan and State of Washington, have invented certain new and useful Improvements in Wire-Screen Racks, of which the following is a specification.

Our invention relates to new and useful improvements in racks and more particularly in racks for holding rolls of wire screening or netting although the same may be employed as a support for any other material or object for which it is adapted.

The primary object of our invention is to provide a rack capable of holding a plurality of rolls of wire screening in such a manner that the screening of one roll cannot come into engagement with that of any other roll and so become entangled therewith, while at the same time in such a manner that the screening may be unrolled from any desired roll without removing said roll from the rack.

A further object of our invention is the provision of a table over which the screening may be drawn as it is unwound from the various rolls and upon which it may be supported while measured and severed from the roll. And a further object of our invention is to provide means for raising and lowering the table upon the rack to bring it into position to properly receive netting drawn from any roll of the rack. And a still further object of our invention is to so arrange the table that it may be swung or folded upwardly against the front of the rack and out of the way when not in use.

With these and other objects in view, our invention will be more fully described, illustrated in the accompanying drawings, and then specifically pointed out in the claims which are attached to and form a part of this application.

In the drawings: Figure 1 is a perspective view of our improved rack, showing the table in operative position; Fig. 2 is a horizontal sectional view taken in a plane above the table, the table in this view being broken away to permit the showing of the operating mechanism thereof upon an enlarged scale; Fig. 3 is a central vertical sectional view, the table in this instance being shown in inoperative position; Fig. 4 is a fragmen-

tary sectional view, showing a pawl and ratchet mechanism by means of which the locking of the table in adjusted position is accomplished; Fig. 5 is a fragmentary perspective view of one form of roll supporting tray employed in our rack; Fig. 6 is a similar view of the other form of roll supporting tray.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

In the drawings, which illustrate the preferred embodiment of our invention, 10 and 11 designate a pair of vertical frame members, the upper ends of which are maintained in spaced relation by a horizontal frame member 12, while 13 and 14 designate correspondingly spaced rear frame members, the upper ends of which are maintained in proper spaced relation by a horizontal frame member 15. The upper ends of the forward and rear frame members 10 and 13 are connected by a horizontal frame member 16, while the upper ends of the frame members 11 and 14 are connected by a similar horizontal frame member 17.

Braces 18 and 19 connect and maintain in proper spaced relation the lower ends of the frame members 10—13 and 11—14 respectively, and the free ends of these braces are extended beyond said frame members and bent downwardly slightly to form supporting feet 20 which may be perforated to receive a screw or bolt by which the rack, as a whole, may be firmly secured in place. The frame members 13 and 14 are braced to the frame members 16 and 17, respectively, by diagonal braces 21, while the frame members 10 and 11 are similarly braced to the base forming braces 18 and 19 by diagonal braces 22. A vertical frame member 23 connects the central portions of the frame members 16 and 18, while a similar frame member 24 connects the central portions of the frame members 17 and 19.

The above described frame may be of any desired size and proportions and constructed of any suitable material. We prefer however, to form the frame wholly from metal and when so formed we have found that angle iron is far superior to any other material for all parts of the frame above described, save the braces 21 and 22.

The vertical frame members 10 and 11 are connected at spaced intervals by horizontal supporting bars 25, the vertical frame members 23—24 are similarly connected by spaced supporting bars 26 and the vertical frame members 13 and 14 are connected by spaced supporting bars 27, the ends of these bars in each instance being riveted, bolted or otherwise secured to the flanges of the adjacent frame members. As will be noted by reference to Fig. 3 of the drawings, the supporting bars connecting the front frame members of the rack, that is the frame members 10 and 11, are positioned slightly lower than the corresponding supporting bars connecting the frame members 23 and 24 which are in turn, positioned somewhat lower than the bars corresponding thereto and connecting the rear frame members 13 and 14.

Each of the bars 25, together with the next adjacent bar 26, that is that bar 26 at a level immediately above the bar 25, forms a support for a roll holding tray 28, while the bars 26, together with their corresponding bars 27, form supports for a plurality of trays 29. Each of the trays 28 is preferably formed from a single piece of sheet metal curved transversely throughout its length to provide a trough shaped body for the reception of the roll of screening to be supported therein and having its forward edge portion bent downwardly as at 30 to hook over one of the bars 25 and its rear edge portion bent downwardly as at 31 for similar engagement over the corresponding bar 26. Each of the trays 29 is formed in the same manner from a single sheet of metal which however, is considerably wider than the sheet of metal employed in forming the trays 28 and with which the trough holding body portion is formed by one side having the downward folded edge portions 32 and 33, the former of which engages over one of the supporting bars 27, while the latter engages over the hooked edge portion 31 of the adjacent tray 28, the extended portion 34 of this downward bent portion 33 being directed forwardly and downwardly to act as a guard for any roll positioned in the adjacent tray 28.

From the foregoing description of the trays and the manner of mounting the same, when taken in connection with the drawings, it will be apparent that a roll of wire netting or screening may be placed in each of the trays and that by engaging the free end of any roll, netting may be unwound from the same without removing the roll from its tray and without any danger of the netting engaging against and becoming entangled with the netting of any other roll. Any netting being removed from either of the front trays will be drawn outwardly through the front of the rack between said tray and the guard of the adjacent rear tray, while any

netting being removed from either of the rear trays will be drawn forwardly between the guard carried by said tray and the bottom of the forward tray immediately above said guard. It will therefore be clear that the guards absolutely prevent any entangling of the netting of the rolls contained in the front trays with those contained in the rear trays.

It will of course be understood that instead of constructing the rack with two rows of trays, one positioned back of the other as shown, the rack may be constructed with one row of trays and that in this case trays of the type shown in Fig. 5 will be employed as there will be no necessity for the shields carried by the trays shown in Fig. 6. It will further be apparent that three or more rows of trays may be employed, if desired, providing the shield of each row, save the front row, be extended completely through the rack to the front to prevent the rolls of netting contained in its trays from becoming entangled with the rolls of netting contained in the other trays.

Having thus described the construction of the rack proper we will now describe the table upon which the netting is supported while measured and cut and the manner in which it is mounted upon the rack. This table includes a frame 35 carrying the bed of the table 36, one side of which is cut away as at 37 to enable one to more readily reach across the table when cutting off a piece of netting. This table is swingingly mounted at its rear end by hinge bolts 38 between hangers 39 and 40 movable vertically upon the ends of the rack. Each of these hangers is preferably formed from a piece of angle iron, the end portions of which are oppositely bent from the body portion to space one above and one below the body portion when the hanger is in position with its end portions extending in horizontal planes. The terminal of the rear end portion of each hanger is doubled inwardly upon itself as shown at 41 to form a housing for a roller 42 journaled upon a bearing pin passed through said doubled portions and engaging against the outer face of the rear flange of the frame member 23 or 24, as the case may be. A Z-shaped bracket 43 is secured to the outer end portion of each hanger to receive, in connection with the hanger, a bearing pin for a roller 44 which engages against the forward face of the frame member 10 or 11, as the case may be. Keepers 45 and 46 carried by the intermediate portions of the hangers extend over the inner faces of the member 23 and 24 and 10—11, respectively, to prevent disengagement of the rollers therefrom and the hinge bolts of the table, being passed through the terminals of the forward end portions of the hangers, receiving

the weight of the table, maintain the rollers in close engagement with their respective frame members. The rear end of the table frame is provided at each side with an extension or stop 47 which, when the table is lowered to horizontal position, engage beneath the brackets 43 to prevent further downward swinging of the table.

In order to provide means for raising and lowering the table and also for holding the table in adjusted position, the frame members 16 and 17 are provided at their forward ends with aligned bearings 48 to receive a shaft 49, which may be either tubular or solid, and upon each end of which is secured a pulley 50. One end of the shaft extends through one of the pulleys 50 to receive a crank 51 by means of which the shaft and pulleys may be rotated. A cable 52, preferably formed of wire, is connected by one end to the intermediate portion of each hanger and by its other end to the adjacent pulley 50. It will therefore be apparent that rotation of the shaft 49 through turning of the crank 51 will wind or unwind the cables 52 upon the pulleys 50 to raise or lower the hangers and table carried thereby.

Keyed or bolted upon the shaft 49 between that bearing 48 and pulley 50 adjacent the crank 51, is a ratchet wheel 53 and pivoted upon the frame member 10 below the ratchet wheel, as at 54, is a pawl 55 adapted to engage the ratchet wheel to lock the shaft against counter-rotation. This pawl 55 is provided with an extension 56 projecting from the pivotal end of the pawl and forming a counterweight for automatically maintaining the pawl in engagement with the ratchet wheel. An arcuate plate 57 extends in spaced relation to each of the pulleys 50, these plates being secured by their ends to the frame in the manner clearly shown in Figs. 3 and 4 of the drawing and slotted for passage of the cables 52. The function of these plates is to prevent disengagement of the cables from the pulleys.

In order to facilitate the measuring and cutting of the wire netting carried by our rack, the table is preferably marked off at one side with scale divisions 58 in order that the table itself may be employed in measuring the netting. Furthermore, the table is provided along its inner edge with a strip of soft metal 59 and upon this with a pair of parallel spaced-apart bars of metal 60, these bars being preferably spaced very close to each other. In measuring netting the netting is drawn out over the table and when the proper amount has been so drawn out, the netting is laid in place over the strip and bars above described and a sharp knife drawn across the netting between the bars which serve as guides to insure the

straight cutting of the netting. The strip of soft metal prevents undue cutting of the table by the knife.

From the foregoing description, taken in connection with the drawings, the operation of our improved rack will be readily understood and but very slight description of the same is necessary. Assuming that the various rolls of screening or netting have been positioned in the roll holding trays and their ends drawn to points where they may be readily reached from the front of the rack, if a salesman wishes to display any one of the nettings contained in the rack or to cut off a piece of any one of said nettings he can swing the table to horizontal position as shown in Fig. 1, raise or lower it through the action of the crank 51 to a position substantially opposite the tray containing the particular roll from which the netting is to be drawn, and then draw the netting from the roll onto the table. It will be apparent that the table will be automatically prevented from swinging below the horizontal position and automatically locked in the position to which it has been raised or lowered because of the engagement of the pawl 55 with the ratchet wheel. It will therefore be seen that we have provided a rack capable of holding a relatively large number of rolls of netting and having a single table which may be readily moved to bring it into position to receive netting drawn from any roll contained in the rack and which, when not in use, may be swung upwardly against the front of the rack and out of the way, the table, in this position, obviously, shielding the trays.

The rolls of netting are positioned in the trays in such a manner that their free ends extend forwardly between the rolls and the trays and the weight of the rolls, therefore, is sufficient to hold the netting against displacement from the trays even while the same is being unwound. It is to assist in holding the netting in the trays that the rear edges of the trays are in all cases supported at a slightly greater elevation than the forward edges, the tendency upon unrolling netting from any roll being to cause the roll to move backward.

Although we have described the above rack as a rack for supporting rolls of wire netting or screening, it will of course be understood that it may be employed for any other purposes for which it is adapted and it will further be understood that we do not wish in any way to limit ourselves to the specific details of construction, illustrated in the drawings and described in the above specification, as various minor changes within the scope of the appended claims, may be made at any time, without in the slightest degree departing from the spirit of our invention.

Having thus described the invention, what is claimed as new is:

1. A rack including a frame, trays disposed one above the other in the frame, a shaft journaled on the top of the frame, a crank for the shaft, pulleys on the shaft, hangers movable vertically on the frame, cables trained over the pulleys and secured to the hangers, and a table carried by said hangers and movable to points opposite the trays, said table being swingingly mounted between the hangers to fold against the frame and trays.

2. A rack including spaced pairs of spaced front and rear frame members, trays carried by the frame members, hangers carried by the frame members and each having spaced rollers one engaging against the rear face of a rear member and the other against the front face of the adjacent forward member, means for raising and lowering said hangers, and a table swingingly mounted be-

tween the hangers whereby it may be moved opposite any tray or swung against the frame to shield the trays.

3. A rack including spaced pairs of front and rear members, trays carried by the frame members, hangers carried by the frame members and a table swingingly supported by the hangers to be swung to shield the trays when not in use, each hanger including a table carrying arm having a roller engaging against the forward face of one frame member, an upwardly and rearwardly offset intermediate portion and a rearwardly directed end portion having a roller engaging the rear face of a rear frame member.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE B. PARKER. [L. S.]

FRED W. GROVER. [L. S.]

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."