

[54] **ADJUSTABLE TOOL HOLDER**

[76] Inventor: **Jerome T. Baatz**, 412 Paragon,
Troy, Mich. 48084

[22] Filed: **Nov. 17, 1972**

[21] Appl. No.: **307,447**

[52] U.S. Cl. **211/60 T, 206/16 D, 248/167**

[51] Int. Cl. **B25h 3/04**

[58] Field of Search 211/42, 43, 60 R, 60 T,
211/69, 60 A, 69.9, 175, 64, 105; 206/16 D,
17, 17.1; 248/167, 37.3; 108/54

[56] **References Cited**

UNITED STATES PATENTS

164,386	6/1875	Merrick	248/164
317,468	5/1885	Morstatt	248/421 X
639,740	12/1899	Kirby	211/69.9 X
1,186,032	6/1916	Peele	248/167
2,599,863	6/1952	Riemvis	248/167
3,477,586	11/1969	Haluska	211/64
3,702,136	11/1972	Albertson	211/60 T

FOREIGN PATENTS OR APPLICATIONS

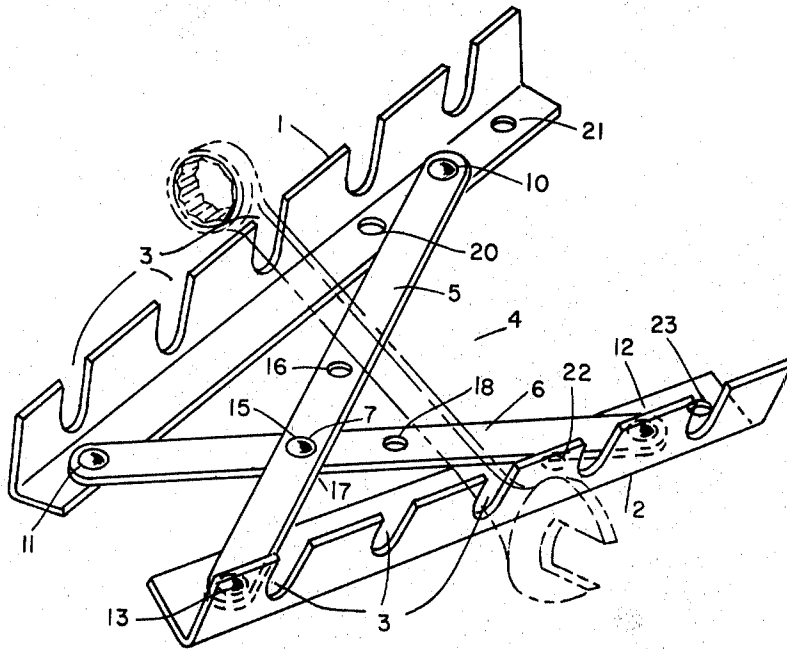
397,111	8/1933	Great Britain	211/178 R
15,722	7/1909	Great Britain	211/60 R

Primary Examiner—Marion Parsons, Jr.
Assistant Examiner—Abraham Frankel
Attorney, Agent, or Firm—Joseph D. Odenweller

[57] **ABSTRACT**

Disclosed herein is an adjustable rack ideally adapted to hold hand tools such as wrenches. It comprises two rack members having opposing recesses for holding objects. The rack members are connected by two pivotally connected intersecting arms which form an X-support. The ends of the arms are pivotably connected to the rack members. There are a plurality of connection locations along both the arms and the rack members which permits a change in the geometry of the rack to hold a wide variety of tools of different lengths.

3 Claims, 2 Drawing Figures



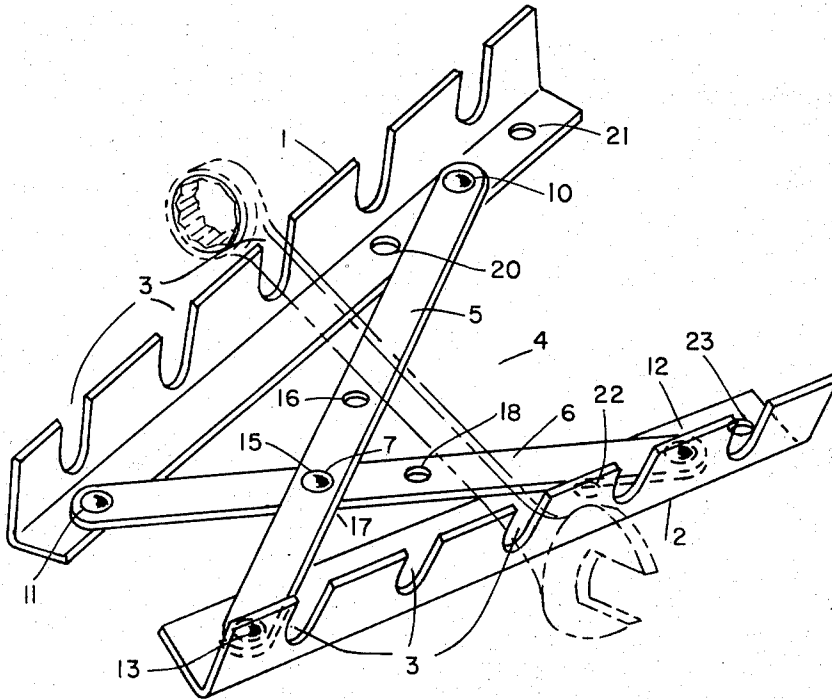


FIGURE 1

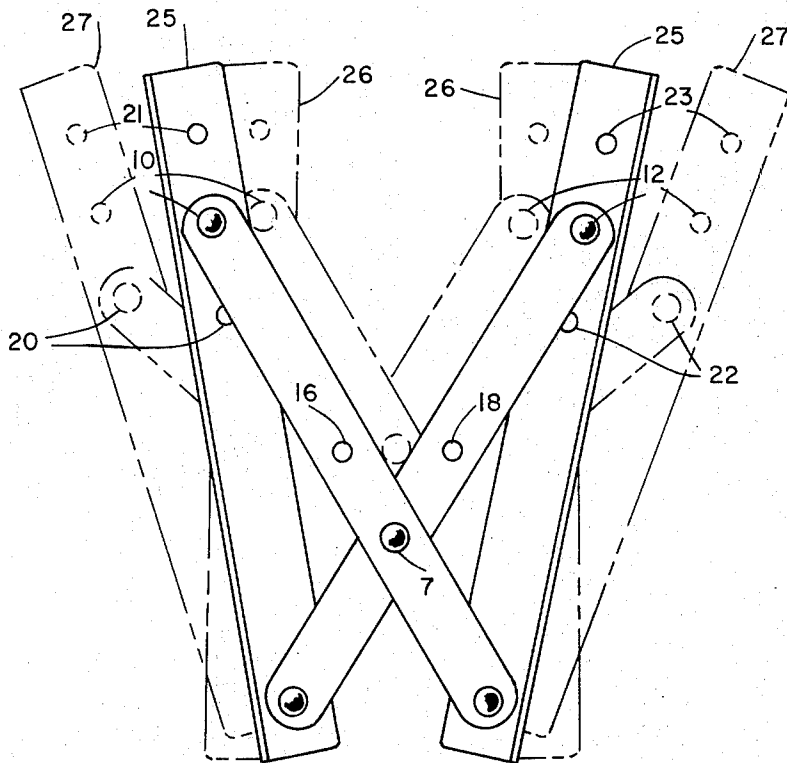


FIGURE 2

ADJUSTABLE TOOL HOLDER

BACKGROUND

Tool racks used in the past are of fixed size which requires a different tool rack when the rack is used to hold a different size set of tools for which it was originally constructed. The present invention overcomes this problem and makes available an adjustable tool rack that can be adjusted to accept tools of varying length.

SUMMARY

The present invention comprises a tool rack comprising two rack members having opposing recesses for holding objects. The rack members are connected by two pivotably connected intersecting arms which form an X-support. The ends of the arms are pivotably connected to the rack members. There are a plurality of connection locations along both the arms and the rack members which permits a change in the geometry of the rack to hold a wide variety of tools of different lengths.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective of tool holder adapted to hold wrenches.

FIG. 2 schematically shows a number of geometrical patterns which can be achieved with but one rack.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIG. 1, the rack comprises first and second rack member 1 and 2. These may be constructed of readily available sheet metal angle-iron. One flange of each angle rack member has a plurality of opposing recesses 3 adapted to hold a tool. Rack members 1 and 2 are connected by an X-support 4 comprised of first and second intersecting arms 5 and 6. Arms 5 and 6 are pivotably connected at their intersection location 7 using any of the many available connectors. The connector is of the type that can be readily removed and replaced. A nut and bolt inserted through openings in the intersecting arms can be used. A preferred means is the well-known snap fasteners which is pivotable and permits rapid change of connection location.

One end of first arm 5 and second arm 6 is pivotably connected to the non-recessed flange of first rack member 1 at locations 10 and 11. The opposite end of first arm 5 and second arm 6 is pivotably connected to the non-recessed flange of second rack member 2 at locations 12 and 13.

First arm 5 has at least two openings 15 and 16 along its length in addition to the opening at its ends. Second arm 6 has at least two openings 17 and 18. Openings 15, 16, 17 and 18 are adapted to receive a pivotable connector such as a rivet, nut and bolt, or snap fastener. As shown, openings 15 and 17 are in-line and pivotably connected.

Rack members 1 and 2 have openings at locations 11 and 13 proximate to one end and a plurality of openings at locations 20, 10, 21, 22, 12 and 23 proximate their other end. Openings at 11 and 13 are adapted to form a pivotable connection to ends of arms 6 and 5. Openings at 20, 10 and 21 are adapted to form a pivotable connection to the opposite end of arm 5. Openings at 22, 12 and 23 are adapted to form a pivotable con-

nection to the opposite end of arm 6. Pivotable connections can be made by any of many known means such as by rivet, nut and bolt, snap fastener, or other such connecting means. Preferably, the connectors are readily removable to allow change of connector location which changes the geometric configuration of the rack members. Circular snap fasteners are ideally adapted for this use. For example, the male snap members may be mounted at locations 11, 13, 15, 10 and 12 on arms 5 and 6 and the female snap members at location 17 on arm 6 and at 11, 20, 10, 21, 13, 33, 12 and 23 on rack members 1 and 2.

As shown in FIG. 1, the intersecting arms are pivotably connected at location 7 by a pivotable connector installed at openings 15 and 17 in arms 5 and 6. The geometric form of the tool holder when arms 5 and 6 are connected at this location is shown by the solid line 25 in FIG. 2.

Disengaging the connection at 7 allows rack members 1 and 2 to change their angular relationship to each other while arms 5 and 6 perform a scissor-like motion. Lining up positions 16 and 18 and forming a pivotable connection results in a tool holder of entirely different geometric shape. This is shown by phantom line 26 in FIG. 2.

Alternatively, the shape may be changed by changing connection 10 and 12 to either 20 and 22 or 21 and 23. Moving connection 10 and 12 to 20 and 22 results in the geometric shape shown by phantom lines 27 in FIG. 2.

It can be seen that the present invention provides a rack that is adjustable such that it can be changed by the user to any desired configuration depending on what the user desires to place in the recesses in the rack.

I claim:

1. An adjustable tool holder comprising first and second rack members, said rack members having an angle cross-section, one flange of each of said rack members having a plurality of recesses adapted to receive and hold a tool, and first and second unitary intersecting arms forming an X-support member, each of said first and second arms having a plurality of longitudinally spaced openings, at least one of said openings in each arm being off-center along the length of the arm, the openings in said arms being equally spaced from their corresponding ends forming matched pairs of openings on each of said first and second arms, each of said matched pairs of openings adapted to receive a pivotable connecting means, one of said matched pairs of openings being connected by pivotable connecting means, first matching ends of said first and of said second intersecting arms being pivotably connected to the non-recessed flanges of said first and of said second rack members proximate one end, a plurality of spaced openings in said non-recessed flanges, the openings in each of said non-recessed flanges and being equally spaced from their corresponding ends and forming matched pairs of flange openings, each of said matched pairs of flange openings adapted to receive a pivotable connector, the opposite matching ends of said first and of said second intersecting arms being pivotably connected to one of said matched pairs of flange openings.

2. An adjustable rack of claim 1 wherein said pivotable connecting means are snap fasteners.

3. An adjustable rack of claim 2 wherein said pivotable connections with the ends of said intersecting arms are snap fasteners.

* * * * *