

Jan. 27, 1953

S. SAUL, JR., ET AL

2,626,711

ADJUSTABLE PEG RACK

Filed Dec. 6, 1948

2 SHEETS—SHEET 1

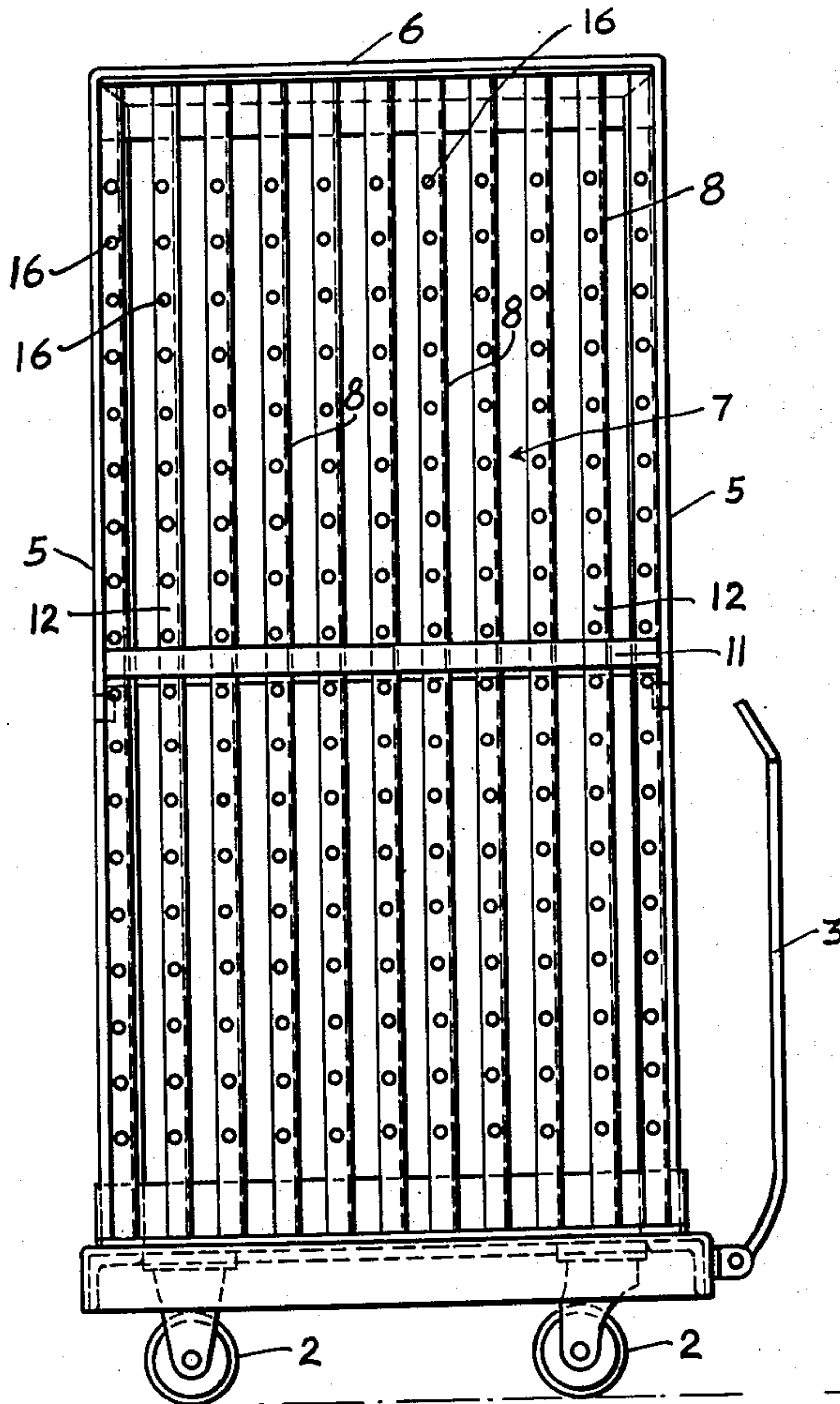


Fig. 1.

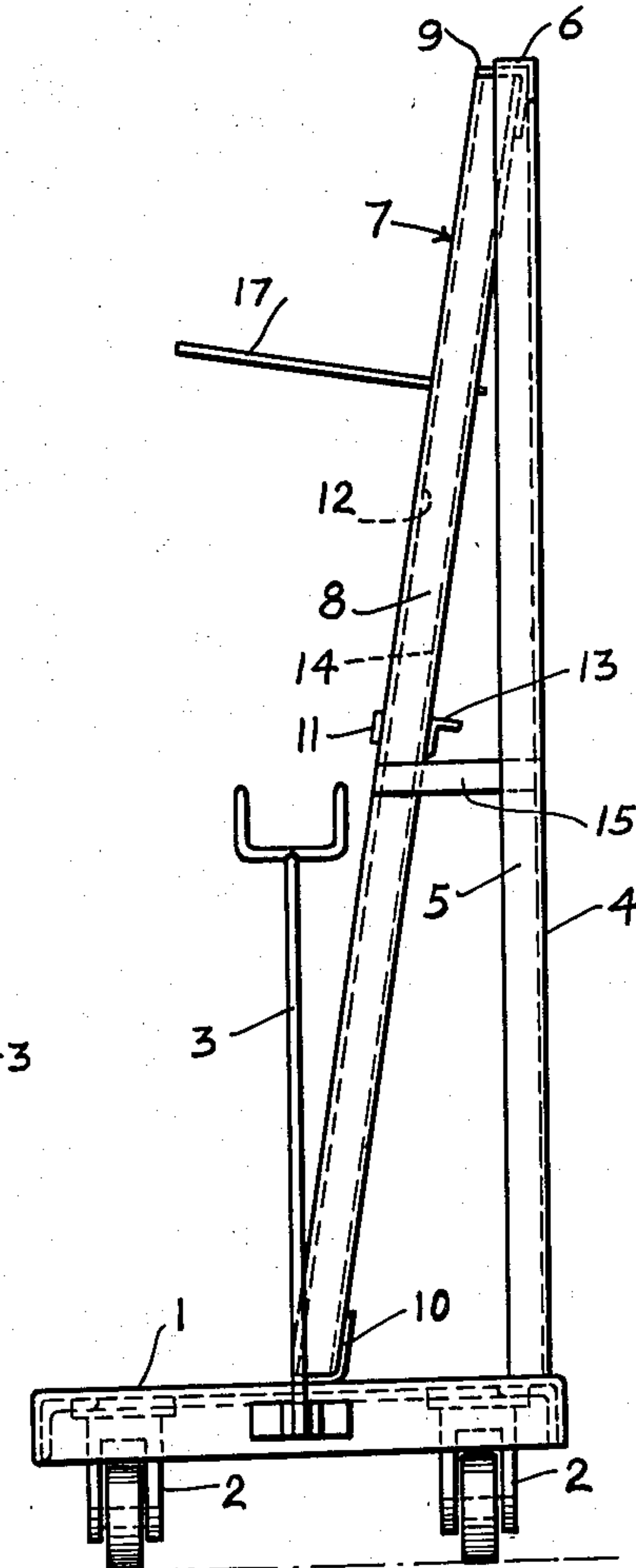


Fig. 2.

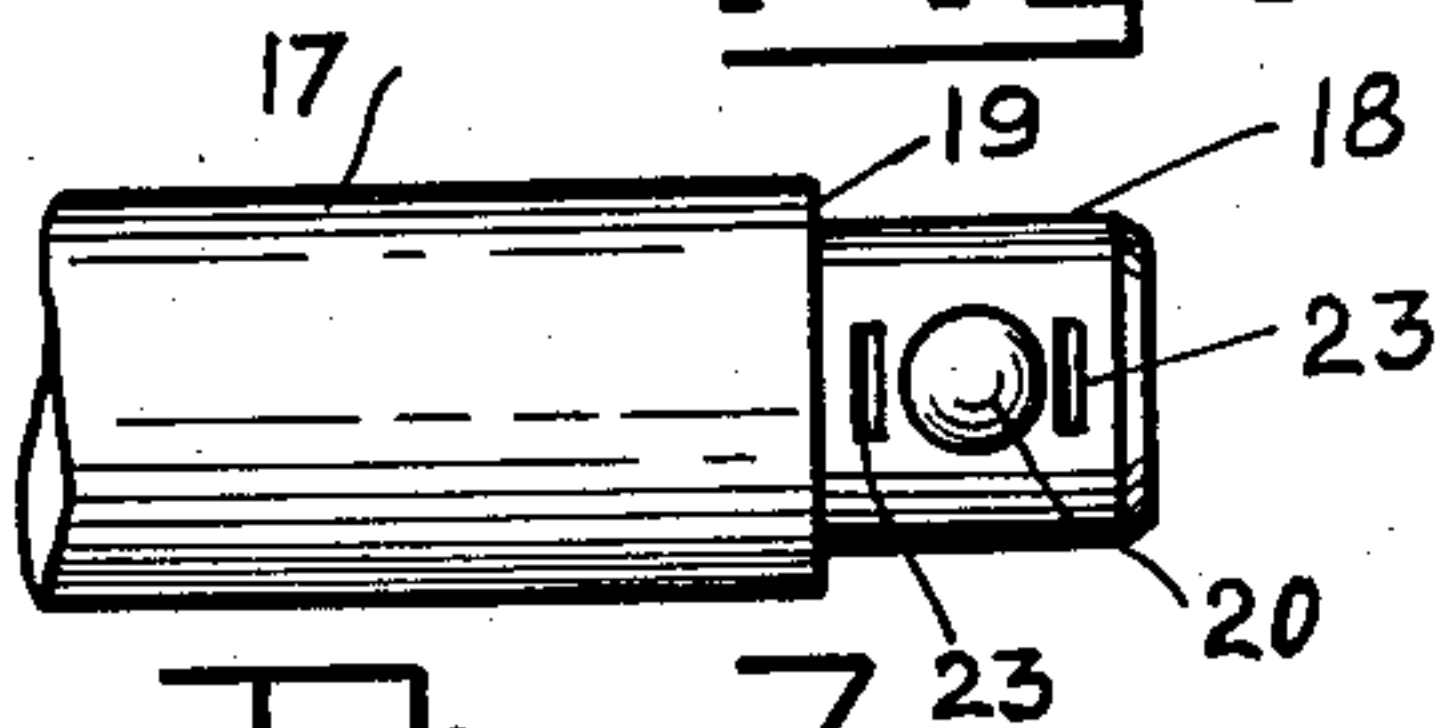


Fig. 3.

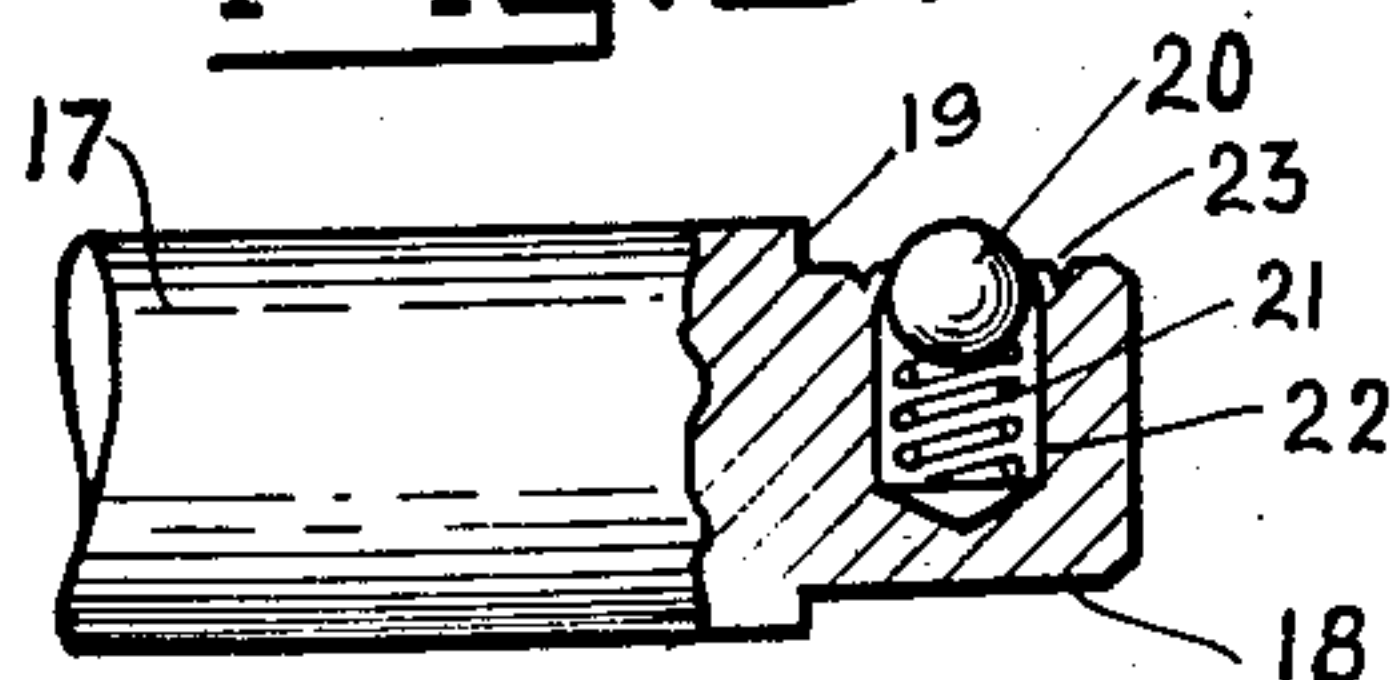


Fig. 4.

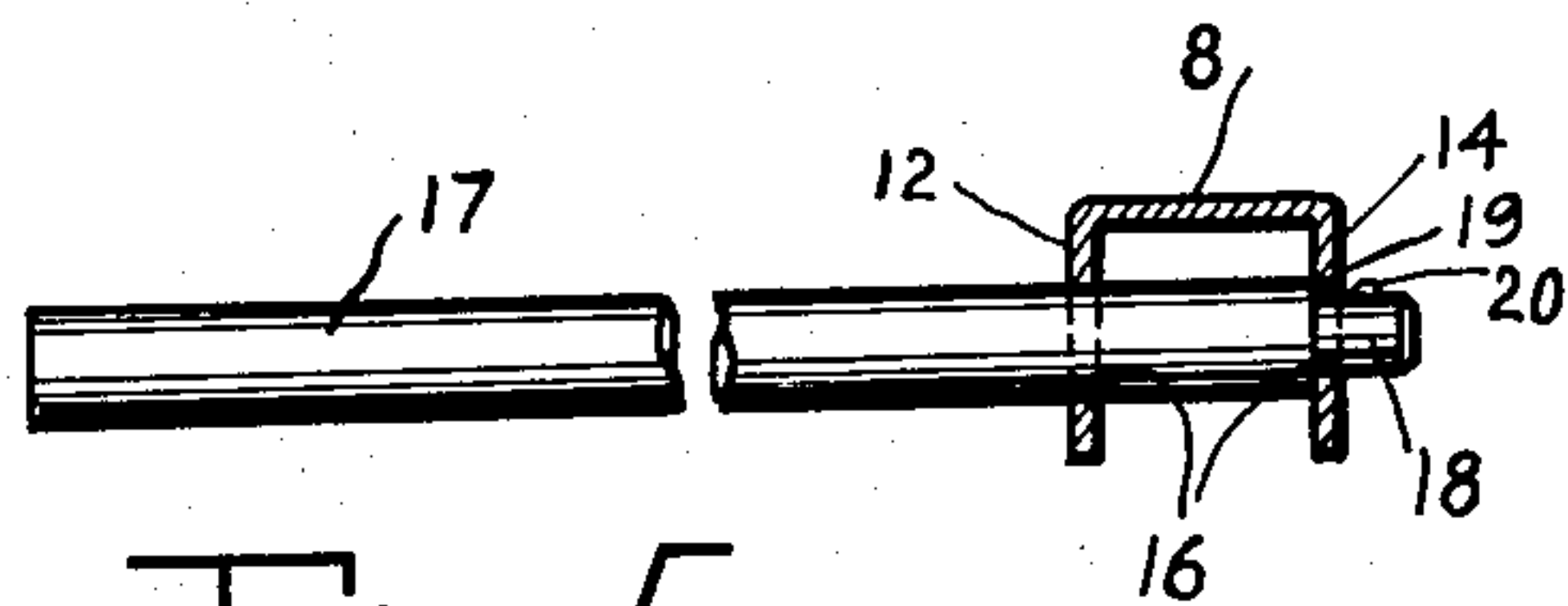


Fig. 5.

INVENTORS  
SAMUEL SAUL JR. &  
LLOYD H. FENSTERMAKER.

BY  
*Christy, Parmelee, & Strickland*  
ATTORNEYS.

Jan. 27, 1953

S. SAUL, JR., ET AL  
ADJUSTABLE PEG RACK

2,626,711

Filed Dec. 6, 1948

2 SHEETS—SHEET 2

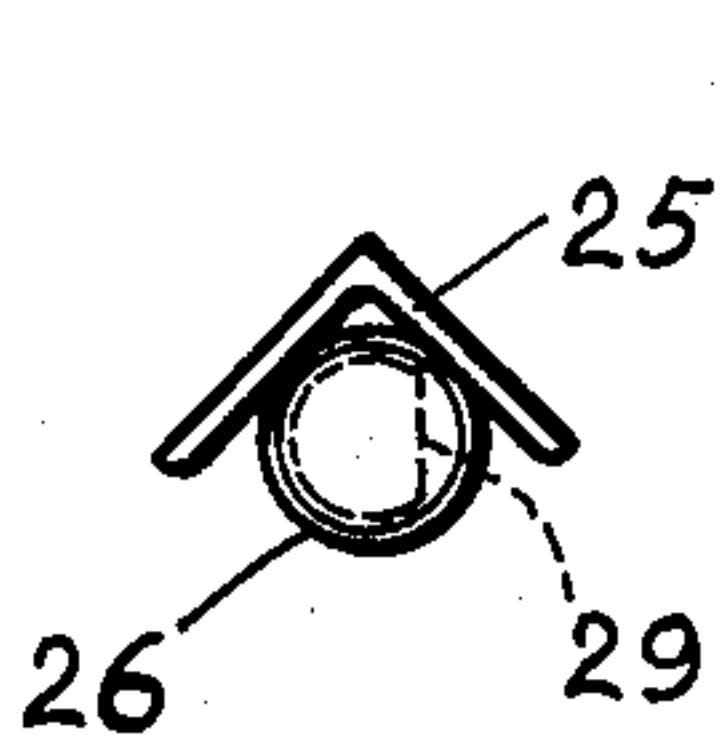


Fig. 7.

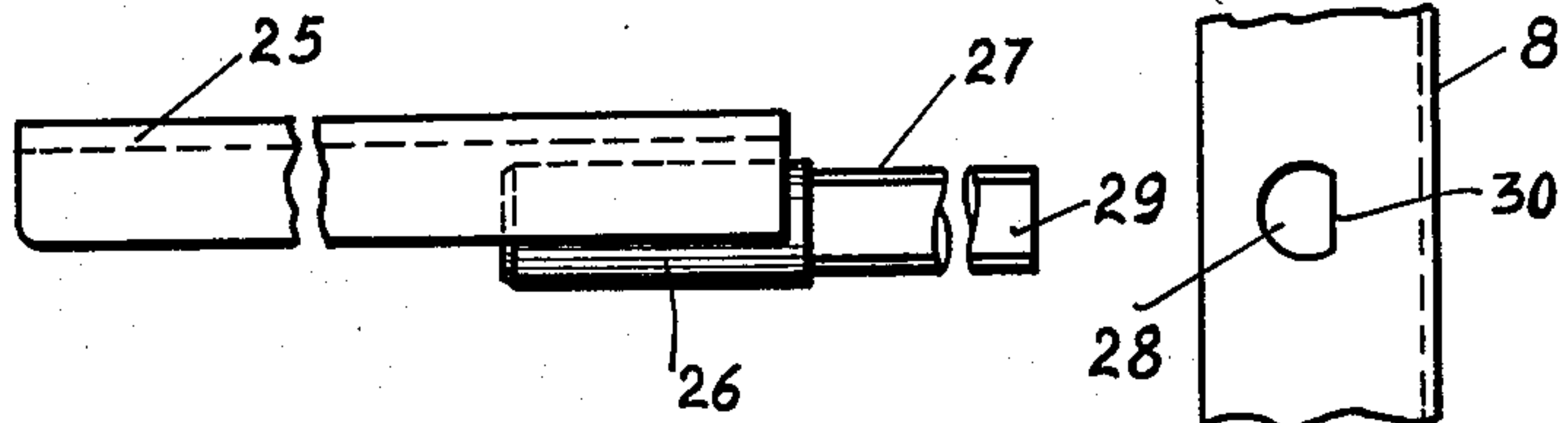


Fig. 6.

Fig. 8.

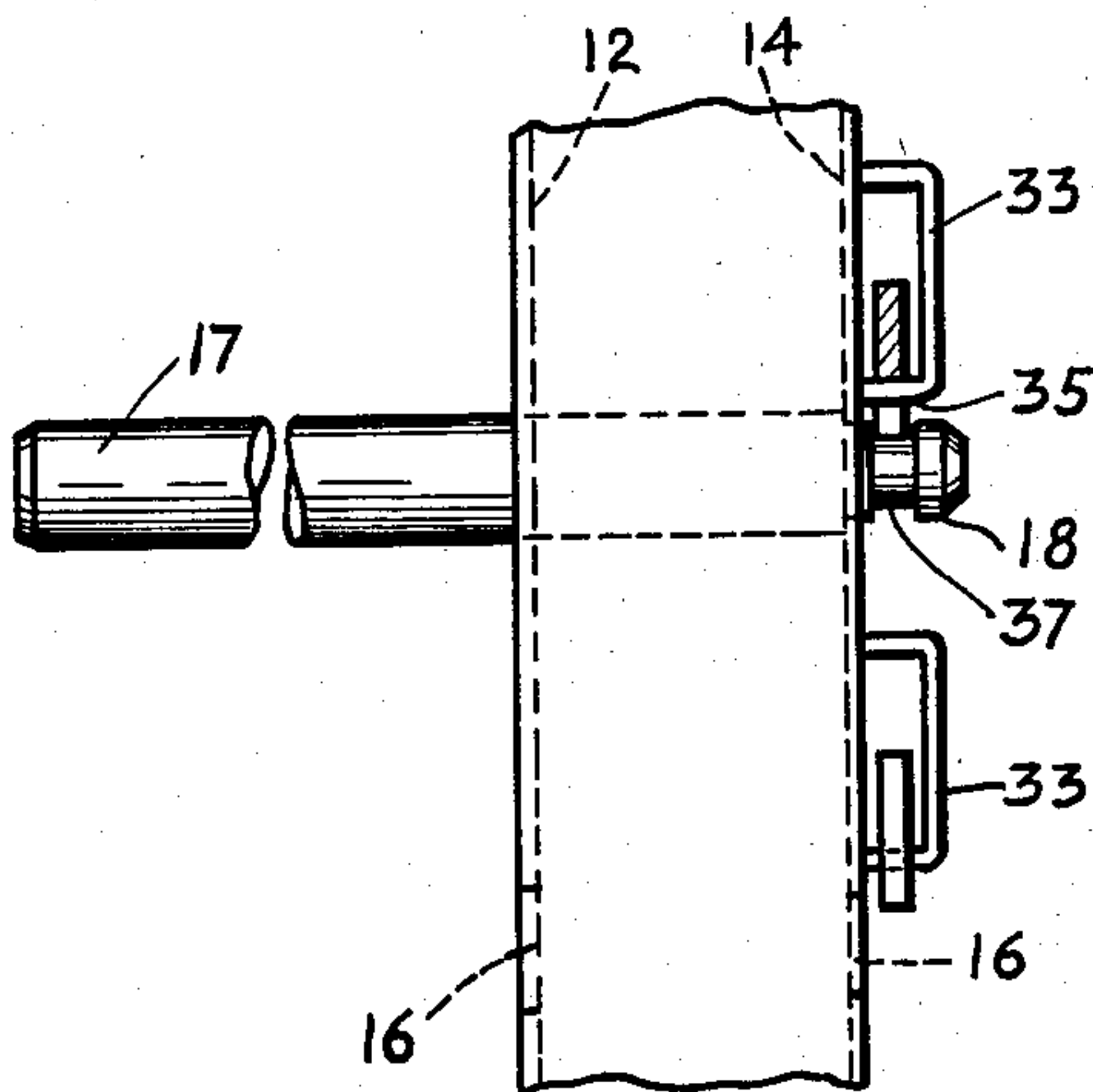


Fig. 9.

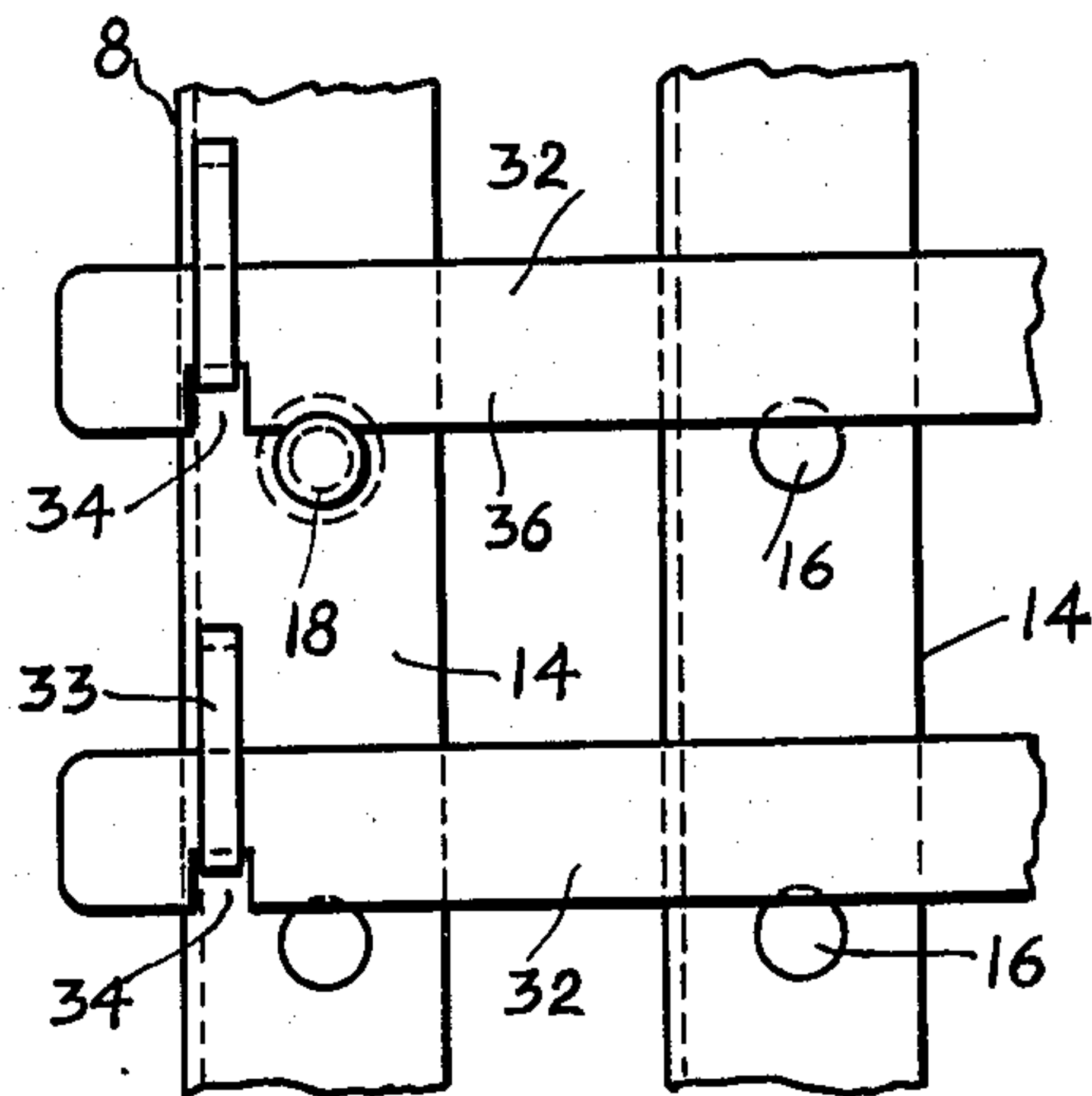


Fig. 10.

INVENTORS.  
SAMUEL SAUL JR. &  
LLOYD H. FENSTERMAKER.

BY

*Christy, Parmelee, & Strickland*  
ATTORNEYS.



## UNITED STATES PATENT OFFICE

2,626,711

## ADJUSTABLE PEG RACK

Samuel Saul, Jr., and Lloyd H. Fenstermaker,  
Pittsburgh, Pa.; said Fenstermaker assignor to  
said Saul

Application December 6, 1948, Serial No. 63,818

2 Claims. (Cl. 211-13)

1

This invention relates to a peg rack for use in handling materials, and, more particularly, to an improved peg rack structure on which the position of article supporting pegs may be readily adjusted in accordance with the size and shape of the articles to be mounted on the pegs.

In industrial operations, articles are frequently encountered which have such an irregular size and shape that they may not be conveniently supported on a flat surface. It frequently happens that such articles have openings therein by which they may be readily supported by hanging on a peg. Such articles are commonly encountered in machine shops where a plurality of machining operations are to be performed on the article in its fabrication. In addition to forming a convenient support for such articles, a peg has the additional advantage of enabling adequate drainage of lubricating oil therefrom while being transported between machines for successive machining operations. Peg supports are also desirable from the standpoint of drainage where articles have been provided with a protective coating of lacquer or other materials.

Since the number and arrangement of pegs necessary on a rack will vary with the size, weight, and shape of the articles being handled, one of the principal objects of this invention is to provide a peg rack in which the position of article supporting pegs thereon may be readily adjusted.

Another object of this invention is to provide a novel form of peg rack having peg supporting members in vertically extending spaced parallel planes, the spaced peg supporting members having pairs of aligned openings therein in which the end of the peg is receivable to provide a support for the peg at points spaced from each other and adjacent the end thereof.

A further object of the invention is to provide a novel peg rack in which the peg supporting members are provided by a plurality of U-shaped channels having spaced flanges in which a plurality of pairs of aligned openings are formed for the reception of the end of an article supporting peg to be mounted thereon.

A still further object of this invention is to provide a novel form of peg structure for limiting its movement in an endwise direction with respect to supporting structure therefor.

Another object of the invention is to provide a peg structure of the character just referred to in which the structure for limiting endwise movement of the peg comprises an abutting shoulder on the peg and a releasable detent both engageable with the peg supporting structure on which

2

the peg is mounted and which are respectively operable to prevent endwise movement of the peg in opposite directions.

Other objects and advantages of the invention will become apparent from the following description.

In the drawings, there is shown a preferred embodiment of the invention. In this showing:

Fig. 1 is a front elevational view of a peg rack constructed in accordance with the principles of this invention;

Fig. 2 is a side elevational view of the rack shown in Fig. 1;

Fig. 3 is an enlarged fragmentary plan view illustrating the preferred embodiment of peg structure;

Fig. 4 is a fragmentary sectional view of the peg structure shown in Fig. 3;

Fig. 5 is a fragmentary sectional view showing the manner in which the peg structure of Figs. 3 and 4 is received in a pair of aligned openings formed in the flanges of one of the peg supporting channels shown in Figs. 1 and 2;

Fig. 6 is an elevational view of a modified form of peg structure;

Fig. 7 is an end view of the peg shown in Fig. 6;

Fig. 8 is a fragmentary elevational view of a peg supporting channel illustrating the shape of the peg supporting openings therein for the peg shown in Fig. 6 and 7; and

Figs. 9 and 10 are, respectively, fragmentary side and elevational views of modified structures for securing the pegs in position with respect to supporting channels.

The structure of the peg rack is shown in Figs. 1 and 2 in which the numeral 1 designates a reinforced base mounted on castors 2, and having a handle 3 pivoted thereto for facilitating its movement from one position to another. A vertically extending support 4 is mounted on the base 1 and comprises side angle sections 5 connected at their upper ends by a top angle section 6, the angle sections 5 and 6 being preferably formed from a common strip of angle section stock.

The peg supporting structure is designated as a whole by the numeral 7 and comprises a plurality of spaced parallel U-shaped channels 8. The channel sections 8 have their upper ends secured in spaced relation to an angle section 9 and their lower ends similarly secured in spaced relation to an angle section 10. The channel sections 8 are braced by a center strip 11 welded to the front flanges 12 of the channels 8 and an angle section 13 welded to the back flanges 14



3

of the channels 8. The peg supporting structure 7 thus constitutes a unit comprising the parallel channel sections 8 and their securing parts 9, 10, 11, and 13.

The peg supporting structure 7 is mounted in an inclined position on the portable base 1, as shown in Fig. 2, by securing the angle section 10 to the base 1 at a point spaced from the lower end of the vertically extending support 4. The angle section 9 at the upper end of the peg supporting structure 7 is secured to the angle section 6 of the vertical supporting structure 4 thus providing a support for the upper ends of the peg supporting structure 7. Bracing members 15 are secured to the center portion of the channels 8 defining the sides of the supporting structure 7 and to the center portion of the flanges 5 of the vertically extending support 4 for preventing movement of the supporting structure 7 out of its inclined position with respect to the support 4. The flanges 12 and 14 of the channel sections 8 provide supporting members in spaced parallel planes which extend substantially vertically upward from the base 1. In a manner to be described, the spaced parallel supporting members 12 and 14 provide a peg support which has supporting engagement with the peg at spaced points adjacent one end thereof. It will be understood that the use of the channels 8 providing the spaced parallel supporting members 12 and 14 illustrates the preferred embodiment of the invention, and that such spaced supporting members may be provided by modified structures without departing from the principles of this invention. More particularly, and by way of example, the spaced supporting members 12 and 14 may be provided by two spaced parallel sheet-metal plates mounted in spaced relation. However, the use of channels 8 is preferred by reason of the rigidity provided thereby.

In order to provide a support for pegs, each of the channels 8 is provided with a plurality of pairs of aligned openings 16, formed respectively in the flanges 12 and 14, for the reception of an end of the peg, the aligned relation of the openings 16 being best shown in Fig. 5. Referring specifically to Fig. 5, it will be noted that the opening in the front flange 12 has a larger diameter than the opening in the back flange 14. The opening in the flange 12 preferably has a diameter such that a peg 17 inserted therethrough has a close fit in the flange 12. The end 18 of the peg 17 has a reduced diameter corresponding to the size of the opening in the back flange 14 of the channel 8. In this manner, a shoulder or abutment 19 is provided on the peg 17 for engagement with the flange 14 in the area about the opening 16 therein through which the small end 18 of the peg 17 projects. The shoulder 19 thus acts as an abutment for limiting endwise movement of the peg 17 to the right as viewed in Fig. 5. A releasable detent 20 is provided on the small end 18 for preventing accidental movement of the peg 17 to the left as viewed in Fig. 5.

The structure of the releasable detent 20 will be best understood by referring to the showings of Figs. 3 and 4. From this showing it will be noted that the detent 20 is a sphere or ball having a spring 21 for biasing it to an upper position with respect to an opening 22 drilled in the end 18. The detent is constructed by first drilling the cylindrical opening 22 into which the spring 21 is placed. The ball detent 20 is then forced into the opening 22 by compressing the spring 21. To hold the detent against movement completely

4

out of the opening 22, the surface of the small end 18 is notched, as at 23, on opposite sides of the opening 22. This provides a restriction at the mouth of the opening 22 for limiting movement of the ball detent 20 out of the opening 22 by the biasing spring 21.

To mount the peg 17 on the supporting rack 7, the small end 18 is moved endwise through any selected pair of openings 16 to the position shown in Fig. 5. As the small end 18 moves through the opening in the back flange 14, the ball detent 20 is forced inwardly against the action of its biasing spring 21. After the ball detent has moved to a position behind the flange 14 and with the shoulder 19 in abutting engagement with the flange 14, the ball detent 20 is moved by its biasing spring to its outer position in which it becomes operable to prevent accidental movement of the small end 18 to the left as viewed in Figure 5. The peg 17 may be withdrawn intentionally from the aligned openings 16 by applying sufficient force thereto to cam the detent 20 inwardly against the action of its spring 21 so that the part 18 may be withdrawn from the opening in the flange 14.

From the foregoing, it will be apparent that the rack support 7 provides a support for a large number of pegs corresponding to the number of aligned openings 16 in the flanges of the channel sections 8. Obviously, a lesser number of pegs 17 may be provided. In addition, it will be apparent that the positional arrangement of a peg may be adjusted quite easily on the support 7 in accordance with the selection of the aligned openings in which the peg is entered. Attention is particularly invited to the fact that the provision of the shoulder 19 on the peg 17 and the detent 20 cooperate to limit endwise movement of the peg when mounted on a rack. Attention is also directed to the fact that the provision of the spaced parallel supporting members 12 and 14 provides a peg support which has supporting engagement with the peg at spaced points along its length. By providing a support having supporting engagement with the peg at spaced points, a heavy weight may be mounted on the peg without distorting the structure of the supporting members 12 and 14 and without damage to its supporting connection on the rack. This spaced supporting arrangement is also effective to prevent bending of the peg between its points of support in such manner as to interfere with removal of the peg from the support. It will also be apparent that the mounting of the supporting rack 7 on the base 1 provides a portable support by which the rack 7, with or without articles supported thereon, may be readily moved from one position to another.

In the case of articles which must be supported in a predetermined position, the structure illustrated in Figs. 6, 7, and 8 may be employed in place of the cylindrical pegs 17 described above. The peg illustrated in Figs. 6 and 7 comprises an angle section 25 which is rigidly secured to a rod 26 having a reduced end 27 for reception in a pair of aligned openings 28 formed in the flanges of a channel support 8. The reduced end 27 is a cylindrical section having a segmental portion removed to provide a flat 29 extending axially along one side thereof. The aligned openings 28 are shaped with a flat surface 30 to conform with the shape of the reduced end 27 so that, when the end 27 is inserted through the openings 28, the surfaces 29 and 30 will engage to prevent turning movement of the part 27 in the openings 28. The angle section 25 supported on the rod 26 will thus



5

be effectively prevented from turning or changing its angular position on the supporting structure.

In Figs. 9 and 10, there is shown a modified form of detent mechanism for securing the pegs against movement out of a position supported by channels 8. The structure shown in these figures is essentially the same as that described in connection with Figs. 1 through 5 and like numerals have been employed to designate like parts. In the modification shown in Figs. 9 and 10, the function of the ball detent 20 is performed by locking bars 32. The locking bars 32 have their ends supported in brackets 33 secured to the end channel members 8 and are provided with a notch 34 for interlocking engagement with the bottom portion 35 of the brackets 33 to prevent endwise movement of the locking bars 32. When the locking bars 32 are mounted on the brackets 33, as shown in Figs. 9 and 10, the lower edge 36 will be positioned in front of the openings 16 in the back flange 14. The small end 18 of the peg 17 is undercut as at 37 to provide a recess into which the lower edge 36 of the locking bar 32 may move. When the bar 32 is positioned in the recess 37, movement of the peg 17 to the left as viewed in Fig. 9 will be prevented. In order to withdraw the peg 17, it is first necessary to elevate the locking bar 32 to move the lower edge 36 out of the recess 37.

While we have illustrated and described one specific embodiment of our invention, it will be understood that this is merely by way of illustration, and that various changes and modifications may be made therein within the contemplation of our invention and under the scope of the following claims.

We claim:

1. In a peg rack, a slat-like supporting structure comprising a pair of spaced end angle sections each having a flange in a common plane and an upstanding flange in spaced parallel planes which are substantially normal to said common plane, a plurality of parallel U-shaped channel sections extending between and normal to said angle sections with the ends thereof connected to said upstanding flanges, said channel sections having parallel webs perpendicular to said common plane with each channel section web having upper and lower parallel flanges, the ends of each of said lower flanges resting on one of said angle section flanges in said common plane, said channel sections being spaced with their upper flanges forming parallel supporting surfaces having narrow elongated slots therebetween, said parallel supporting surfaces cooperating to provide a slat-like support on which an article may be supported by a plurality of said parallel supporting surfaces, said upper and lower flanges on each of said channel sections having a plurality of pairs of aligned openings therein, said openings in said upper flanges being larger than the openings in said lower flanges, and a peg support movable endwise through a selected pair of said openings

6

to a position supported by the flanges of one of said channel sections so that an article may be hung thereon and prevented from sliding movement over said slat-like supporting surface, said peg having a body portion of a size such that it will move through said larger openings but have a snug fit therein, and a reduced end projecting from said body portion for movement through said smaller openings, the formation of said peg with a reduced end providing a shoulder at the end of said peg body portion engageable with one of said lower flanges in an area around an opening therein to limit endwise movement of said peg to a mounted position.

2. In a peg rack, a slat-like supporting structure comprising a pair of transversely extending end structural sections, a plurality of parallel U-shaped channel sections extending between and normal to said structural sections, the ends of said channel sections being rigidly secured to said structural sections, said channel sections having parallel webs with each web having upper and lower parallel flanges, all of said upper flanges and all of said lower flanges being respectively positioned in spaced parallel planes, said channel sections being spaced with their upper flanges forming parallel supporting surfaces having elongated slots therebetween, said parallel supporting surfaces cooperating to provide a slat-like support on which an article may be supported by a plurality of said parallel supporting surfaces, said upper and lower flanges on each of said channel sections having a plurality of pairs of aligned openings therein, and a peg support movable axially endwise through a selected pair of said openings to a position supported by the flanges of one of said channel sections so that an article may be hung thereon and prevented from sliding over said slat-like supporting surface.

SAMUEL SAUL, JR.

LLOYD H. FENSTERMAKER.

#### REFERENCES CITED

The following references are of record in the file of this patent:

#### UNITED STATES PATENTS

Number	Name	Date
504,729	Keller	Sept. 12, 1893
613,760	Cronin	Nov. 8, 1898
670,144	Bond	Mar. 19, 1901
686,063	Hecker	Nov. 5, 1901
931,669	Babcock	Aug. 17, 1909
1,380,570	Lehman	June 7, 1921
1,698,318	Norton	Jan. 8, 1929
1,867,611	Borrmann	July 19, 1932
1,888,155	Biedinger	Nov. 15, 1932
1,992,901	McIntosh	Feb. 26, 1935
2,043,841	Stevens	June 9, 1936
2,100,421	Wupper	Nov. 30, 1937
2,246,692	Ohme	June 24, 1941
2,421,894	Lee	June 10, 1947
2,451,674	Hade	Oct. 19, 1948