

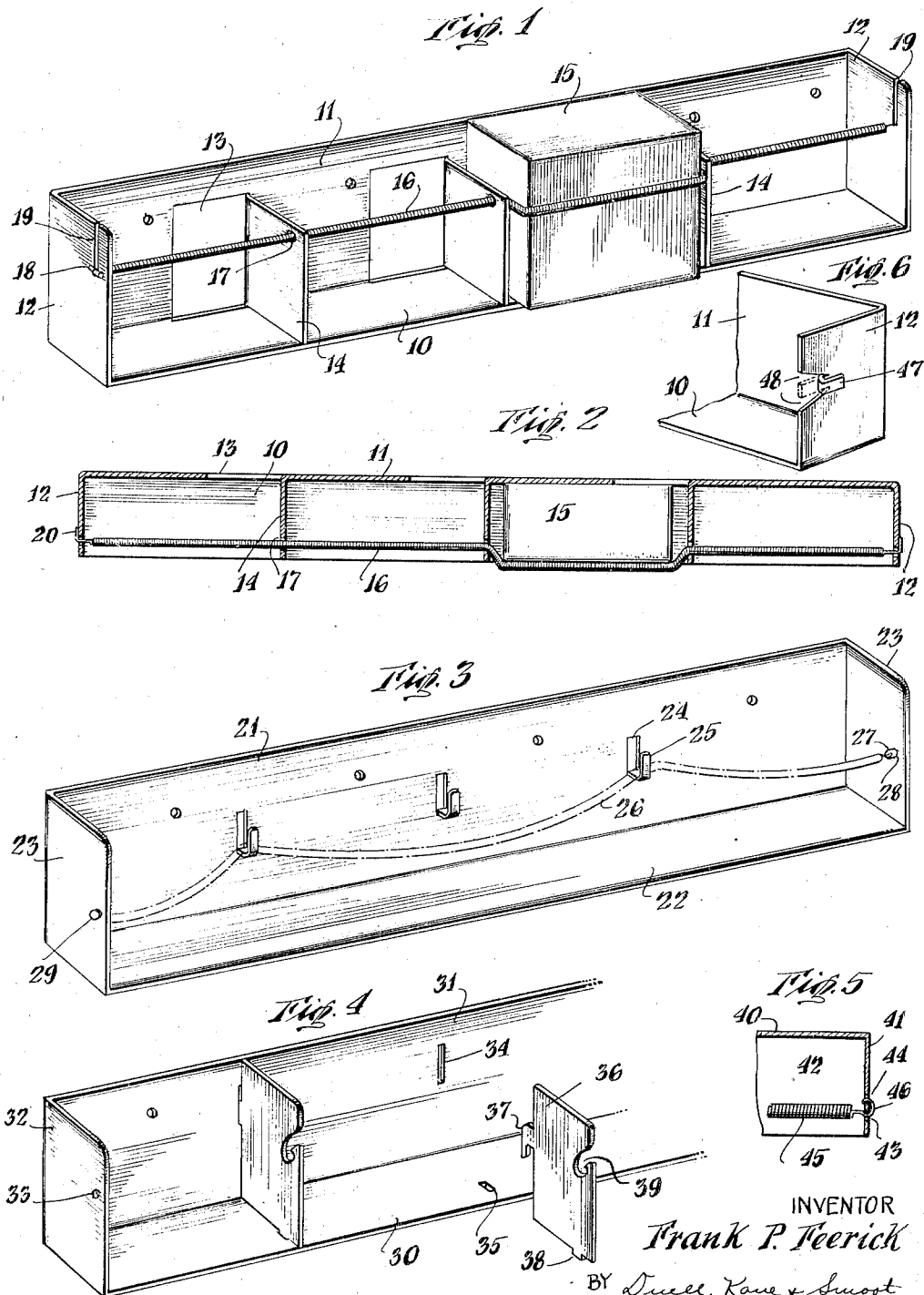
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RACK

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RACK

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This invention relates to a structurally and functionally improved rack and in its more specific aspects aims to provide a unit of this type which will act to support receptacles such as condiment holders and to retain the same against displacement.

It is an object of the invention to provide a unit of this type which may readily be mounted in any desired position and when so mounted will serve to pleasingly display and support receptacles of various types; for example, containers for condiments, spices, etc. At the same time, a unit embodying the present invention will permit of the ready removal and replacement of these receptacles.

A further object is that of furnishing a rack which will embody a simple and rugged construction such that it may be economically manufactured by quantity production methods and will have a long, effective life. During such life it may, for example, be supported on the inner face of a door so that the receptacles mounted by it will be protected from dust and dirt. Additionally, when so supported, any titles appearing upon these receptacles may easily be read.

Still another object is that of providing a structure of this type which will properly retain receptacles against rattling or breakage regardless of the number of receptacles associated with the rack up to the limit of its capacity. Moreover, in accordance with the present teachings, the rack will be inconspicuous or, in fact, practically invisible when it contains a full complement of receptacles.

A still further object is that of designing a rack with which receptacles may readily be associated or from which receptacles or containers may easily be removed.

Additionally, if desired, the rack may be delivered to the ultimate user in unassembled condition but be capable of having its parts disposed properly with respect to each other by even an unskilled person to furnish a unitary and pleasing structure embodying the foregoing advantages.

With these and other objects in mind, reference is had to the attached sheet of drawings illustrating practical embodiments of the invention, and in which:

Fig. 1 is a perspective view of one form of rack;

Fig. 2 is a sectional plan view of a rack of this type but showing an alternative form of spring-anchoring structure;

Fig. 3 is a perspective view illustrating an alternative form of rack structure;

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Fig. 4 is a fragmentary perspective view of a still additional form of structure;

Fig. 5 is a slightly enlarged fragmentary sectional plan view illustrating in detail a further form of spring-anchoring which may be resorted to; and

Fig. 6 is a fragmentary perspective view of a still further form of construction.

As will appear from the following description, the rack is preferably formed of sheet metal. Likewise, a yielding member forms a part of this rack. Preferably, such member will be a metallic spring. As will be apparent, however, the rack might be manufactured of materials other than metal and, likewise, the yielding member might be formed of an elastic cord or similar unit rather than a spring. Therefore, except where otherwise limited in the appended claims, the use of sheet metal and metallic spring is to be taken in an illustrative rather than a limiting sense.

With primary reference to Fig. 1, it will be seen that the numeral 10 indicates the base or shelf of a rack which is provided with a rear wall 11 and end walls 12. Portions of the rear wall may be struck out as indicated at 13 to provide transverse partitions 14 which subdivide the area of the shelf 10 into what might be termed compartments for the convenient reception of containers such as 15. While in the forms illustrated, the container has been shown as occupying an entire compartment, it will be apparent that such subdivision might accommodate any suitable number of receptacles.

A retaining element in the form of a spring 16 is threaded through openings 17, preferably adjacent the outer, upper edges of the partitions 14. The ends of this spring as shown in Fig. 1 may terminate in coiled portions encircling a retaining element or head 18 in the form of a rod extending transversely to the axis of the spring. Accordingly, if the end walls 12 are formed with slots 19, then the spring or yielding member may be placed in a condition of tension and passed downwardly through the slots 19 adjacent its ends. Under these circumstances, the heads 18 will act as anchoring elements to prevent a displacement of the spring ends. Whether the body of the spring or merely a strand of the same extends through the slits 19 will depend upon the width of the latter and the end configuration of the springs.

In Fig. 2 the same reference numerals have been employed to indicate parts similar to those illustrated and described in connection with Fig.

1. In both of these views, it will be observed that the depth-area defined by the spring 16 is less than the width of a receptacle such as 15 which is to be accommodated upon the shelf 10. Also, the base 10 is preferably of less width than that receptacle. Therefore, as such a receptacle is positioned upon the shelf, the spring will have a portion of its body adjacent the outer face of the receptacle shifted outwardly. This will obviously serve to tension the spring throughout this area and will cause the same to properly bear against the receptacle which will be yieldingly retained in position. Consequently, the latter will not shift forward or sideways with respect to the shelf nor will they rattle or vibrate as a support on which the rack is mounted is swung to create, for example, centrifugal force. As will be obvious by having the receptacle of greater width than the shelf the user's finger tips may bear against the projecting area of the receptacle to elevate it for ready withdrawal.

Additionally, with reference to Fig. 2, it will be noted that the ends of the spring or yielding member 16 terminate in what might be described as angular or hook portions 20. These may either be shifted longitudinally of openings such as slits 19 or else the end walls 12 may simply be pierced to permit of the passage of these portions. In any event, where so formed the ends of the spring will be prevented from being accidentally displaced. Also, in common with the constructions hereinafter described the portions of the spring or resilient element between the anchored ends may within limits slide or shift with respect to the compartment-defining partitions or structures. Therefore as containers are associated with the rack the spring or its equivalent will individually cooperate with these units to retain them in properly mounted position.

As in Fig. 3, the reference numeral 21 indicates the rear portion or wall of a rack which also has a shelf portion 22. The ends of this structure are defined by walls 23. The rear wall 21 may be formed with openings 24, the resultant struck-out metal of which provides hooks 25. These hooks are spaced from each other and from the end walls 23 distances adequate to provide compartments or subdivisions of proper size when a spring or other yielding member 26 is associated with the rack. The ends of the spring terminate in hook-shaped portions 27 which are threaded through perforations formed in the shank 28 of headed pins 29. The end walls 23 have openings which are of a size adequate to accommodate these shanks 28 but do not permit of the passage of the heads 29.

Therefore, the spring or yielding member 26 may be positioned. Thereafter, the pins 29 may be inserted through the openings in the end walls 23. Finally, as the ends of the yielding members are introduced through the perforations of the shanks 28, the entire structure will be completely assembled.

When so assembled, it will be noted that the same functional characteristics occur as in connection with the structures in Figs. 1 and 2. In other words, the spring will define what might be termed compartments wherein a depth less than the width or depth of a receptacle is present. Therefore, the spring will not alone engage the outer face of a receptacle but will also extend substantially around the outer corners of the same and in a rearward direction. Accordingly, the receptacle will be normally held but at the

same time will be readily capable of being withdrawn or repositioned.

In the event it is desired to have the rack embody partitions but at the same time to employ a substantially imperforate rear wall, a structure such as is shown in Fig. 4 may be utilized. In that view, the numeral 31 indicates the rear wall and 30 the shelf or supporting portion of the rack. End walls 32 may be provided and be formed with perforations or openings 33 for the reception of the ends of the yielding member or for securing elements which retain the same. The rear wall is conveniently formed with slits 34 and the shelf portion 30 may be formed with openings 35 of reduced area. Partition members 36 are disposed in line with the slits 34—35. To assure of an interlocking of these parts, hook-shaped extensions 37 may form part of the partitions adjacent their rear edges and these partitions may also be formed with projections 38 in their under edges. The hooks 37 are introduced through the slits 34 after which the partitions 36 are shifted downwardly in the direction of the shelf 30. With such shifting the projections 38 will enter the slits or openings 35 to thus lock the partitions against displacement. Again, while not shown in this view, a spring or yielding member is positioned to have its ends secured in line with the openings 33 in the end walls 32. The body of this member is disposed in the undercut or hook-shaped recesses 39 formed in the outer edges of the partitions 36. Therefore, all the parts are retained against displacement.

As is apparent, any number of procedures and structures for securing the yielding member in position may be employed. For example, as shown in Fig. 5, the rack may include a rear wall 40, an end wall 41 and a base or shelf portion 42. The end wall 41 may be formed with perforations 43 and 44 which receive the hook-shaped end 46 of a spring 45. As will be apparent, this end may readily be threaded through the opening 43 to a position at which it will engage with the edges of opening 44 to thus secure the parts against displacement. In this form of construction, as well as in the form illustrated in Fig. 4, it is definitely preferred that in accordance with the teachings of the present invention, the spring or yielding member define a compartment having a depth less than that of the receptacle to be mounted by the rack. Also, that receptacle as shown should be preferably project beyond the forward edge of the shelf in order to obtain the advantages as afore enumerated.

Finally, in Fig. 6 there has been shown an alternative and, in certain respects, preferred form of spring-anchoring structure. As illustrated in this view, the end wall 12 may be formed with a double notch 48. The end of the spring or elastic member will terminate in a hook or loop. The opposite sides of the latter may be wedged into the crotch portions defined by the double notch. The material which provides this notch may at least partially be left integral with the wall 12. This will serve to furnish a tongue 47. The latter may be bent rearwardly to overlie the outer end of the loop. In this manner, the spring or member will have its end anchored against any accidental displacement.

As shown, the rear wall of the rack may be formed with screw-accommodating openings. Thus, securing elements may be passed through these to mount the rack. Obviously, any other mounting expedient may be employed. Preferably, however, any such mounting should per-

mit of longitudinal adjustment of the rack. In other words, it should allow the rack to be mounted at any desired position on a door and so that a sufficient number of the openings or other securing elements will be aligned with proper mounting surfaces rather than being in registry with portions which may be too thin or recessed. As will be apparent, it will also be feasible to mount the rack so that one of its ends may actually overlap the jamb of a door as the latter is swung to closed position.

From the foregoing, it will be appreciated that among others the several objects of the invention as specifically afore noted are achieved. Obviously, numerous changes in construction and rearrangements of the parts might be resorted to without departing from the spirit of the invention as defined by the claims.

I claim:

1. A rack including a rear wall, a base extending in a horizontal position outwardly from said wall and adjacent the lower edge of the latter, end walls extending upwardly from said base at points adjacent the ends of the same, a coil spring secured adjacent its ends to said end wall with its intermediate body portion spaced above said base, spaced outstruck plates extending from said rear wall and formed with openings adjustably supporting said body portion to define compartments along the length of said base and rear wall, the depth of said base being restricted and the points of contact of said body portion by the edges of the plate openings being perpendicularly within the area of said base whereby a unit having a pre-determined depth and supported

upon said base will extend beyond the outer edge of the latter and will cause said coil spring to be similarly extended beyond said unit.

2. A rack including a rear wall, a base extending in a horizontal position outwardly from said wall and adjacent the lower edge of the latter, end walls extending upwardly from said base at points adjacent the ends of the same, a coil spring secured adjacent its ends to said end wall with its intermediate body portion spaced above said base, portions of said rear wall being struck out to extend perpendicularly from the face of such wall over said base to provide compartments, and said outstruck portions being formed with openings adjustably supporting the body portion of said spring member at points between the end walls.

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