Sept. 6, 1960 F. E. ABERER 2,951,670

BRACKET AND ENGAGEMENT THEREFOR

Filed May 29, 1957 2 Sheets-Sheet 1

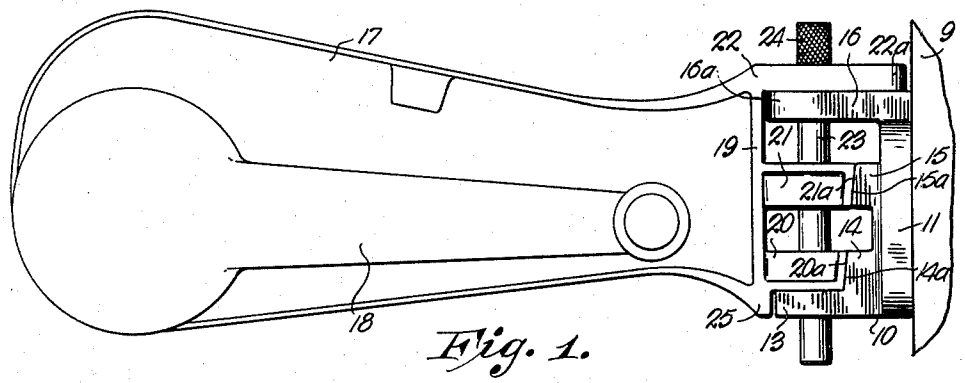


Fig. 1.

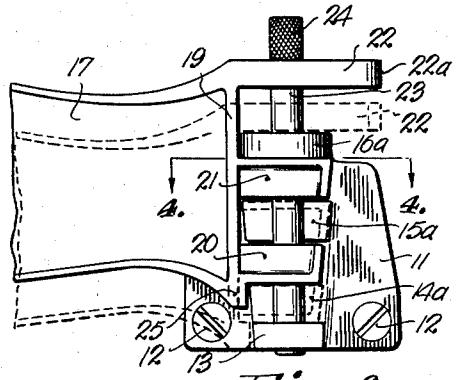


Fig. 3.

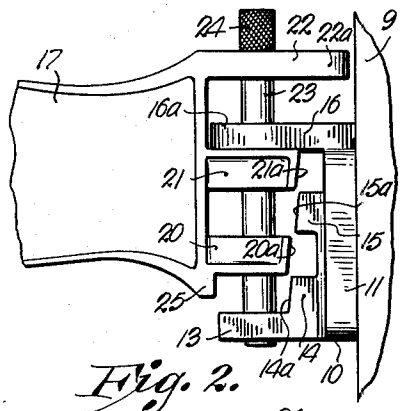


Fig. 2.

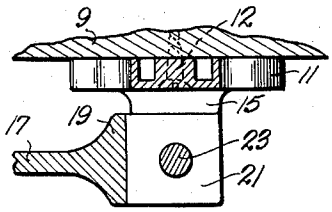


Fig. 4.

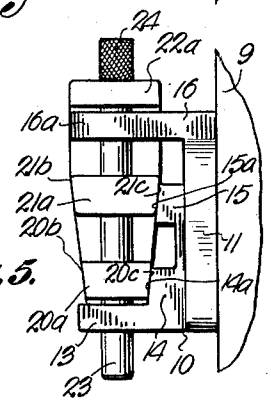


Fig. 5.

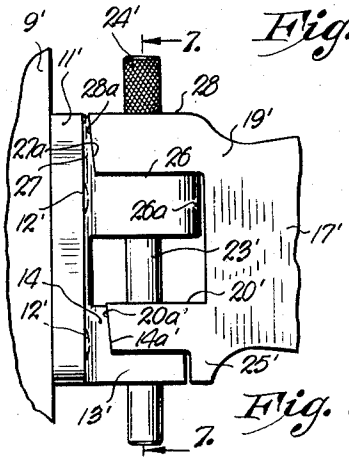


Fig. 6.

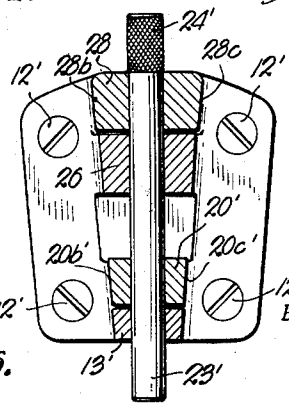


Fig. 7.

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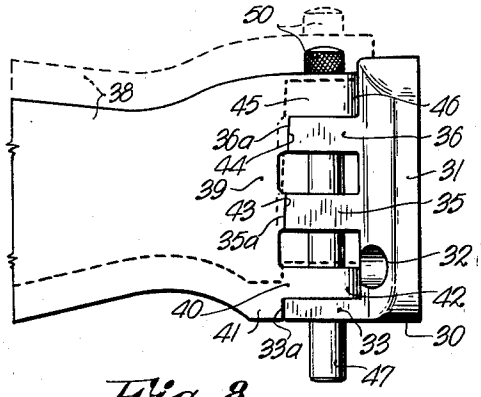


Fig. 8.

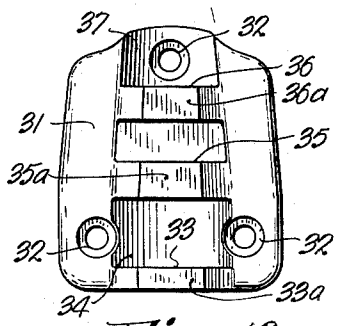


Fig. 10.

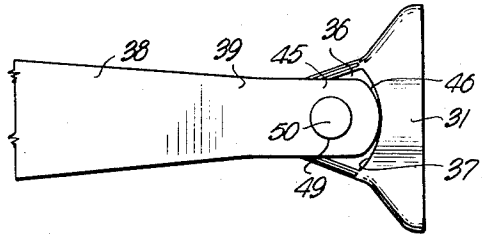


Fig. 9.

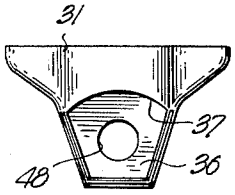


Fig. 11.

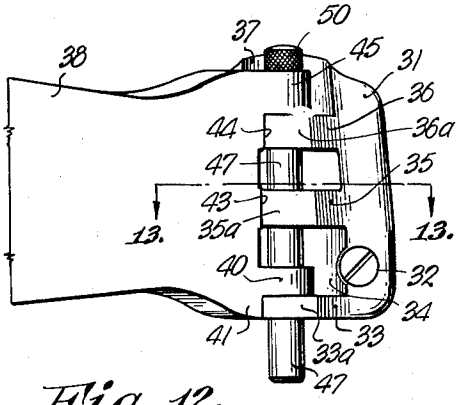


Fig. 12.

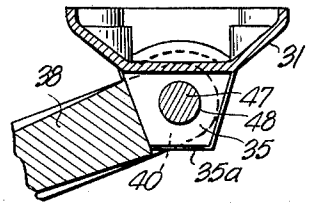


Fig. 13.

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United States Patent Office 2,951,670
Patented Sept. 6, 1960

2,951,670

BRACKET AND ENGAGEMENT THEREFOR

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Filed May 29, 1957, Ser. No. 662,440

9 Claims. (Cl. 248—289)

This invention relates to support and positioning brackets and engaging members cooperating therewith for "wall" mounted devices such as kitchen implements, including can openers, and refers more particularly to such support and positioning brackets and engaging members which permit mounting the device or implement in more than one position relative the supporting wall or surface.

An object of the invention is to provide simple, positive acting brackets and cooperating engaging members for mounting devices in more than one position relative the surface or wall supporting the bracket, the device being either used or stored in each of said positions.

Another object of the invention is to provide such brackets and cooperating engaging members having sufficient ruggedness and strength that the device supported thereby is operable in any of said optional positions relative the surface supporting the bracket.

Another object of the invention is to provide such brackets and cooperating engaging members which are attractive in appearance and wherein all of the parts of both the brackets and engagements are readily accessible for cleaning.

Yet another object of the invention is to provide such brackets and engaging members therefor wherein the engaging members are rigidly and strongly locked in any one of the several possible alternate positions relative the supporting surface for the bracket when moved to said position.

Another object of the invention is to provide such brackets and engaging members therefor which permit mounting the engagement relative the bracket in several positions, each position a locking one, yet wherein the engaging member may be easily and quickly detached and removed from the bracket, if desired.

Still another object of the invention is to provide a simple, positively acting bracket and engaging member therefor for mounting devices in more than one position relative the surface supporting the bracket, the engaging member rigidly fixed against movement relative the bracket and its supporting surface in each of said optional positions, yet freely and easily disengageable, without excess exertion of force, from each position for change to another.

Another object of the invention is to provide a simple, positively acting bracket and engaging member therefor for mounting devices in more than one position relative the surface supporting the bracket, wherein the engaging member may be shifted from one of said positions to any other without any intermediate engagement in a non-desired position.

Still another object of the invention is to provide simple, positively acting bracket and engagement means for mounting devices in more than one position relative the surface supporting the bracket, wherein the bracket and the engaging member are so formed as to effectively combine into a single rigid, strong unit in each alternative position.

Yet another object of the invention is to provide bracket and engagement means for mounting devices in more than one position relative a flat surface supporting the bracket, wherein the device is so fixed relative the surface as to give room between the device and the surface for any conventional type of handle thereon, without the said device or handle contacting the surface.

Other and further objects of the invention will appear in the course of the following description thereof.

In the drawings, which form a part of the instant specification and are to be read in conjunction therewith, two embodiments of the invention are shown and, in the various views, like numerals are employed to indicate like parts.

Fig. 1 is a side view of a preferred form of the inventive bracket and engaging member combination fixed in the preferred working position, a can opener being illustrated fixed to the engaging member.

Fig. 2 is a view similar to that of Fig. 1 and of the same form of the invention, but showing only part of the can opener, wherein the engaging member has been lifted relative the bracket to permit shifting of it to another one of the alternate possible positions.

Fig. 3 is a front view of the bracket of Figs. 1 and 2 with the engaging member shown pivoted to one of the alternative positions in full lines, but not locked therein, and shown in dotted lines engaged with the bracket in said alternate positions.

Fig. 4 is a view taken along the lines 4—4 of Fig. 3 in the direction of the arrows.

Fig. 5 is a view from the side of the bracket exactly equivalent to that shown in dotted lines in Fig. 3.

Fig. 6 is a side view of a second form of bracket and engaging member therefor shown locked in the preferred working position.

Fig. 7 is a view taken along the lines 7—7 of Fig. 6 in the direction of the arrows.

Fig. 8 is a side view of a third modification of the invention shown with a kitchen device fixed in the preferred working position at right angles to the bracket, the bracket engaging member shown locked in full lines and in disengaged position for rotation to one of its side positions in dotted lines.

Fig. 9 is a top view of the modification of Fig. 8 of the full lines showing thereof.

Fig. 10 is a front view of the bracket employed in the modification of Fig. 8 with the engaging member and kitchen device not shown.

Fig. 11 is a top view of the bracket of Fig. 10.

Fig. 12 is a front view of the bracket and engaging member of Fig. 8, the engaging member and kitchen device shown in a side locked position.

Fig. 13 is a view taken along the lines 13—13 of Fig. 12 in the direction of the arrows.

Referring to the drawings, and more particularly to the preferred modification of the invention shown in Figs. 1–5, at **10** is shown a wall bracket, having a bracket base plate **11**, which is fixed to a wall **9** or a like supporting, substantially vertical surface by screws **12** through holes formed in the bracket. In this modification, there are shown two screws **12** adjacent the base of the bracket base plate and a single screw, best seen in Fig. 4, centrally of the base plate adjacent the top thereof. A bottom wall shelf joins the bracket base plate **11** adjacent the lower portion thereof comprising an outwardly extending shelf **13** topped by a lesser outwardly extending wall portion **14**. Wall portion **14** preferably has slanted free end face **14***a* slanted or angled upwardly toward the bracket base plate while the free end face of the shelf **13** is preferably not angled or slanted. A second wall portion **15** extends outwardly from the bracket base plate and has a face **15***a* slanted as face **14***a* but substantially continu-

ously in line with the face 14*a*. Wall portion 15 is spaced upwardly from wall portion 14 a distance to be later described. Top shelf 16 extends outwardly from the face of the bracket base plate preferably at least a distance equal to the distance of extension of shelf 13 and has its free end 16*a* preferably rounded for a purpose to be later described. The upper shelf 16 may comprise part of the bracket base plate as shown.

Any conventional type of can opener or other conventional wall mounted device 17, having here operating handle 18, may be formed integral with or fixedly attached to plate 19. Lower engaging arm 20 extends outwardly from the plate 19 a distance not less than the shelf 13 extends past the base of the wall portion 14 and preferably has slanted face 20*a* to match and at least substantially abut angled face 14*a*. Second engaging arm 21 also is fixed to the plate 19, extends outwardly therefrom and is of sufficient length to at least substantially abut the slanted face 15*a* of second wall portion 15 when the engaging member is in the primary locked position of Fig. 1. Angled or slanted face 21*a* matches and at least substantially abuts angled or slanted face 15*a* of the second wall portion 15. Upper engaging arm 22 overlies upper shelf 16 and preferably is of such length as to substantially approach the supporting wall surface. The end 22*a* is rounded to permit rotation as will be described.

Openings are formed in each of the members 22, 16, 21, 20 and 13 which match one another when the two engaging arm faces 21*a* and 20*a* abut the faces 14*a* and 15*a* and the arm 20 is in contact with the upper face of the shelf 13. Engaging means or pin 23 having enlarged knurled head 24 extends through these openings with the knurled head of such outer diameter as to not pass through the opening in the top engaging arm 22, whereby to permit insertion and withdrawal of the pin 23 from the openings but not permit sliding of the knurled head through any of the openings. The depth of the engaging arms 20 and 21 is preferably at least substantially the same and the height of the second wall portion 15 above the first (14) is preferably slightly greater than the thickness of the engaging arms. The height of the upper shelf 16 above the second wall portion 15 is preferably substantially the same as the previously given height. Preferably, also, the lower engaging arm 20 has an abutment portion 25 extending downwardly from the base thereof to substantially abut the front face of the shelf 13. The face of the abutment 25 may be in line with the face of the plate 19 or advanced slightly, as shown, depending upon the length of the shelf 13.

Additionally, the portions of the side faces of the engaging arms 20 and 21 which are to engage the wall portion faces 14*a* and 15*a* in one of the alternate positions to that of Fig. 1 (Figs. 3–5) are preferably angled or slanted upwardly to match the angling or slanting of the faces 14*a* and 15*a* and permit engaging member therewith, as may be seen in Fig. 5. Numerals 20*b* and *c* and 21*b* and *c* indicate these angled face portions. It should be noted that the engaging arms shown in the drawings have been hollowed out or cut away partly in their side faces but this is not necessary and the entire side faces may be angled or slanted, as previously described, their full length.

In operation of the modification shown in Figs. 1–5, Fig. 1 shows the preferred operating position for the bracket-engaging member combination with a kitchen device, such as a can opener, extending straight outwardly from the bracket supporting surface. In this position, the two engaging arm surfaces 20*a* and 21*a* are both abutting the wall portion surfaces 14*a* and 15*a* respectively, and the lower engaging arm 20 rests on shelf 13 while upper arm 22 of the engaging member rests on shelf 16. The pin 23 passes through the openings in each of the members previously described and locks the engaging member and bracket together.

In Fig. 2, the engaging member has been lifted relative the bracket so that both of the engaging arms 20 and 21 clear the respective wall portions 14 and 15 so as to bring the upper engaging arm 21 substantially in contact with the shelf 16. It should be noted that the length of the pin 23 below the knurled portion 24 is sufficient that when the upper engaging arm 21 abuts the underside of shelf 16, the lower end of pin 23 still engages the opening in the shelf 13. Since the upper engaging arm 21 abuts the underside of shelf 16, the engaging member cannot be lifted further and, thus, the engaging member cannot be removed from the bracket without actually pulling the pin 23 out of the openings. The engaging member and the attached kitchen device may now be rotated either toward the observer in Fig. 2 or away from him.

Fig. 3 shows in full lines the position after a rotation of 90° to the left (facing the bracket) before the engaging member is lowered to again contact the wall portion. Figs. 3 (dotted lines) and 5 show the locked or engaged position of the parts in the alternate left turn position. It may be seen in Fig. 3 that the turning must be done with the two engaging arms 20 and 21 opposite the gaps between the two wall portions 14 and 15. The rounded portions 16*a* and 22*a* on the top shelf and top engaging arm, respectively, permit this rotation around the pivot pin 23. On dropping or lowering the engaging member and kitchen device into the position shown in Fig. 5, the side faces 21*c* and 20*c* of the engaging arms 21 and 20, respectively, engage the inclined faces 15*a* and 14*a* of the bracket wall portions. If the bracket is positioned at a corner of the supporting wall surface so the kitchen device extends outwardly into the air instead of next the supporting surface, the kitchen device can be operated in the position shown in Fig. 5 with as great stability and rigidity as the preferred operating position of Fig. 1. It should be evident, as well, that the reverse operation to that previously described can be employed to position the inclined faces 21*b* and 20*b* against the inclined wall portion faces 15*a* and 14*a* in the alternative right turn position, if desired.

Referring now to the second modification of the invention shown in Figs. 6 and 7, therein is shown a bracket base plate 11′ equivalent to that of the previous modification, said plate fixed to a wall surface 9′ analogous to that of the previous modification with bolts or screws 12′ fixing it thereto. A lower shelf 13′ topped by a wall portion 14′ having inclined face 14*a*′ is joined therewith. An engaging member 19′ having a kitchen device of some sort 17′ affixed thereto also has lower engaging arm 20′ with inclined end face 20*a*′ analogous to the previous modification. Also, abutment 25′ is constructed analogous to abutment 25 of the previous modification positioned relative the end face of the shelf 13′.

The novel construction of the second modification as opposed to the previously described preferred modification lies in the provision of a secondary bracket shelf 26 having rounded free end 26*a* topped by wall portion 27. Wall portion 27 has inclined outer face 27*a*, the face 27*a* being substantially in line with the inclined face 14*a*′ of the lower wall portion 14′. Preferably, the gap between the upper surface of lower wall portion 14′ and the underside of upper shelf 26 is slightly greater than the thickness of lower engaging arm 20′ of the engagement 19′. An upper engaging arm 28 having inclined free end face 28*a* to match the wall portion face 27*a* extends from the engagement 19′. Pivotal engaging means 23′ comprise a pin cylindrical in cross section having a knurled enlarged head 24′. Openings are formed in and through the engaging arm 28, the shelf 26, the engaging arm 20′ and the shelf 13′ which match when the engaging arms 20′ and 28 overlie the shelves 13′ and 26 with the faces 28*a* and 20*a*′ abutting the faces 27*a* and 14*a*′ respectively, as shown in Fig. 6. The length of the pin 23′ is preferably sufficiently great that when the engaging member 19′ is lifted so the top of engaging arm 20′ contacts the bottom face of shelf 26, the pin still en-

gages the opening in shelf 12'. The rounded portion 26*a* of shelf 26 permits rotation of the engaging member relative the bracket after the engaging arms have been lifted to clear the shelves and the wall portions as in the previously described modification.

Referring to Fig. 7, it will be seen that the side faces 28*b* and 28*c* are tapered or angled to match the taper or angle of the faces 27*a* of the wall portion 27 and the side faces 20*b*' and 20*c*' are tapered likewise to match the taper or angling of the face 14*a*' of the wall portion 14' so that when the engaging member 19' is rotated to either the right or left, 90° from the position shown in Fig. 6, an engaging member like that of Fig. 5 is possible for the second modification.

Referring now to Figs. 8–13 and the third modification of the invention, at 30 is shown a wall bracket having a bracket base plate 31 which is fixed to a wall or a like supporting, substantially vertical surface by screws or bolts through holes 32 formed in the bracket. In this modification, there are shown two holes adjacent the base of the bracket base plate and a single hole, best seen in Fig. 10, centrally of the base plate adjacent the top thereof. A bottom wall shelf 33 extends outwardly from the lower portion of the bracket base plate 31 substantially at right angles thereto. The portion of the bracket base plate immediately above wall shelf 33 is hollowed out as shown at 34 to form a concave recess therein. A second wall shelf 35 extends outwardly from the bracket base plate and has a face 35*a* angled or slanted in cross section from the vertical. The end face 33*a* of shelf 33 may be straight as illustrated. The shelf 35 is spaced vertically above the shelf 33*a* a specified distance to be later described. Top shelf 36 is also fixed to the bracket base plate and extends outwardly therefrom and has a face 36*a* slanted in the same manner as face 35*a* but itself is substantially continuously in line with said face 35*a*. The shelf 36 is spaced vertically a distance later to be described. The face of the bracket base plate above the shelf 36 is recessed and hollowed out as at 37 in like manner to the portion 34.

Any conventional type of wall-mounted kitchen device or house device such as a can opener 38 having a mounting base 39 may have mounting elements for engagement with the bracket fixed thereto or mounted thereon. Lower engaging arm 40 has depending abutment 41 therebelow to engage the front face of shelf 33 and itself has rounded end 42 for substantially flush opposition with the hollowed out portion 34 in the bracket base plate 31. The vertical distance between shelves 33 and 35 is preferably and necessarily at least twice the thickness of engaging arm 40. The thickness of the shelf 33 is preferably less than the thickness of the arm 40. Slanted face engaging portion 43 is formed to abut the slanted face 35*a* of shelf 35 when the arm 40 rests on top of shelf 33. Slanted face engaging portion 44 is formed in like manner to engage the slanted face 36*a* when the arm 40 rests on shelf 33. Upper engaging arm 45 is formed so as to lie in contact with shelf 36 when arm 40 lies on shelf 33 and has rounded end portion 46 to lie in substantially flush opposition with hollowed-out portion 37 and rotate therein. Openings of the same size are formed in engaging arms 45 and 40 and the shelves 36, 35 and 33. These openings are formed so as to be aligned with one another when the engaging portions of the bracket are in locked position as shown in Fig. 8. With this construction, the pin 47 having an outer diameter slightly less than the openings 48 in the shelves and 49 in the engaging arms can pass therethrough with greater diameter knurled head 50 of the pin 47 unable to pass through said openings.

It should be noted that the shelves 36, 35 and 33 are all tapered from a greater width adjacent the base plate 31 to a lesser width at their outer extremities. Thus, the side faces of the shelves are not at right angles to the normal line to the wall 32. Secondly, the side faces of the shelves 36 and 35 are slanted from a greater width at their lower edges to a slightly lesser width at their upper edges. The latter slant is to permit the faces of the slanted engaging portions 43 and 44 to smoothly and fully engage the side faces of the shelves 36 and 35 when moved to a position as shown in Fig. 12. The former configuration is to provide that the kitchen device or can opener 38 when in one of the side positions as in Fig. 12, will be angled outwardly slightly from the wall 32 so any handle such as 18 shown in Fig. 1 will not prevent positioning of the kitchen device in such position.

In operation of the modification of Figs. 8–13, as previously stated, the shelf 40 is of a depth less than the distance between shelf 33 and shelf 35, while the engaging portion 43 is of slightly less depth than the distance between shelves 35 and 36. The depth of the shelf 36 is no greater than that of shelf 35. Therefore, when the can opener 38 is lifted to the dotted line position on Fig. 8, arm 40 rises so the engaging portion 41 clears face 33*a*, the engaging portion 43 clears face 35*a* and the engaging portion 44 clears face 36*a*. The can opener may then be rotated somewhat less than 90° to either the right or left side of the bracket shown in Fig. 10 and then lowered to its locking position with the engaging portions 44, and 43 and abutment 41 once again engaging portions of, this time the side faces of, shelves 36, 35 and 33. Thus it is evident that the objects of this particular modification are provided in that the can opener is spaced next to the supporting surface but extending slightly outwardly therefrom to permit the presence of handles or the like thereon.

From the foregoing it will be seen that the invention is one well adapted to attain all of the ends and objects hereinbefore set forth, together with other advantages which are inherent to the apparatus.

It will be understood that certain features and subcombinations are of utility and may be employed without reference to other features and subcombinations. This is contemplated by and is within the scope of the claims.

As many possible embodiments may be made of the invention without departing from the scope thereof, it is to be understood that all matter hereinabove set forth or shown in the accompanyng drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim:

1. A can opener bracket and engaging member therefor in combination comprising a bracket base plate adapted to be mounted on a substantially vertical supporting surface, abutment means fixed to and extending outwardly from said plate comprising a first shelf extending substantially at right angles to said plate and a first wall having a face extending upwardly from said first shelf adjacent its joinder with the plate, an engaging member for said bracket including an arm having a free end and sides fixed at one end to the engaging member and adapted to overlie in a first engaging position the said first shelf and at least substantially abut with said end the said first wall face, a second shelf connected at one end to the plate and extending outwardly therefrom, a second wall having a face extending upwardly from the second shelf adjacent its connection to the plate, a second arm having a free end and sides connected at one end to the engaging member and extending outwardly therefrom, said second arm fixed at one end to the engaging member and adapted to overlie in said first engaging position the said second shelf and at least substantially abut with said end the said second wall face, matching openings in and at least partly through both the first and second shelf and first and second arms, pivotal means in said openings engaging the shelves and arms, whereby said engaging member and arms may be lifted free of said walls, rotated relative to the plate and then lowered to the second engaging position wherein at least one of

the sides of one of the arms is next one of the wall faces in a fixed secondary engaging position.

2. Apparatus as in claim 1 wherein the upwardly extending walls are substantially of the same height.

3. Apparatus as in claim 1 wherein the height of the second shelf above the first wall is only slightly greater than the thickness of the first arm.

4. A can opener bracket and engaging member therefor in combination comprising a bracket base plate adapted to be mounted on a substantially vertical supporting surface, abutment means extending outwardly from said plate comprising a first shelf extending substantially at right angles to said plate and a first wall having a face extending upwardly from said shelf adjacent its joinder with the plate, an engaging member for said bracket including a first arm having a free end and sides fixed at one end to the engaging member and adapted to overlie in a first engaging position the said first shelf and at least substantially abut with one end the said first wall face, a second wall having a face connected at one end to the plate and extending outwardly therefrom, a second arm having a free end and sides fixed at one end to the engaging member and adapted to at least substantially abut with said end the second wall face in said first engaging position, matching openings in and at least partly through both the first shelf and the first arm, and pivotal engaging means in said openings engaging the first shelf and the first arm whereby said engaging member and arms may be lifted free of said walls, rotated relative the plate and lowered to a second engaging position wherein at least one of the sides of one of the arms next one of the wall faces is fixed in a secondary engaging position.

5. Apparatus as in claim 4 wherein the second wall and second arm are of substantially the same height.

6. Apparatus as in claim 4 wherein the wall faces and the engaging arm ends adapted to substantially abut thereagainst angle upwardly toward the plate in the first engaging position.

7. Apparatus as in claim 6 wherein at least one side of each arm angles upwardly as well.

8. A can opener bracket and engaging member therefor in combination comprising a bracket base plate adapted to be mounted on a substantially vertical supporting surface, abutment means comprising a shelf extending outwardly from said plate at substantially right angles thereto, said shelf having a free end and sides, an engaging member for said bracket including an arm fixed at one end to the engaging member and adapted to overlie in a first engaging position the said shelf, an abutting portion below said arm having an end and adapted to engage the end of the shelf with its end in the first engaging position, matching openings in and at least partly through both the shelf and the arm, and pivotal engaging means in said openings engaging the shelf and the arm whereby said engaging member may be lifted free of said bracket and rotated relative the plate and then lowered so one of the sides of the shelf is engaged by the abutting portion in a second engaging position, at least one of the sides of the shelf slanted relative to a vertical plane normal to the supporting surface whereby the engaging member fixed thereon is not itself positioned at right angles to the vertical plane normal to the supporting surface.

9. Apparatus as in claim 8 wherein both sides of the shelf are slanted relative to a vertical plane normal to the supporting surface.

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