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W. H. ELLIS

1,930,645

SHELF SUPPORT

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Fig. 1.

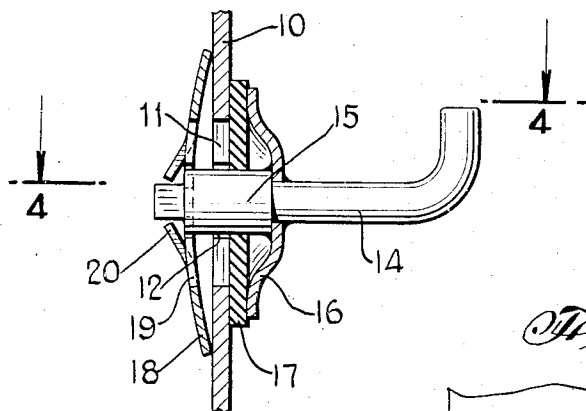


Fig. 2.

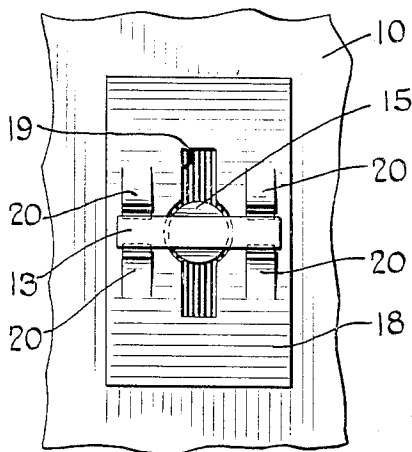


Fig. 3.

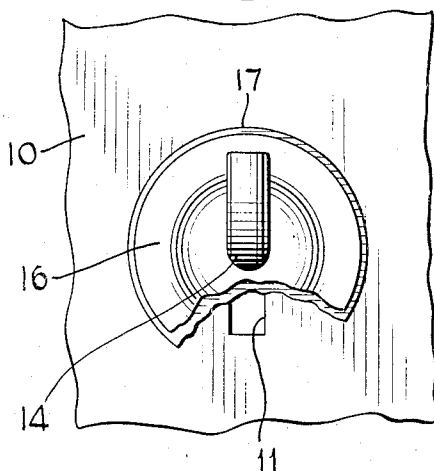
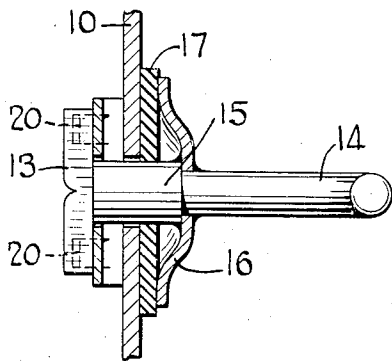


Fig. 4.



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SHELF SUPPORT

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13 Claims. (Cl. 248—18)

This invention relates to shelf supports or hooks of the type used to support the shelves in a refrigerator cabinet and it is an object of the invention to provide a shelf hook or support of simple and inexpensive construction, of good appearance, and one which can be easily and quickly applied and locked in position.

Other objects and advantages will be apparent from the following description taken in connection with the accompanying drawing, wherein:

Fig. 1 is an elevation partially in section, illustrating one application of the invention;

Fig. 2, a rear elevation of the device of Fig. 1;

Fig. 3, a front elevation, partly broken away, and

Fig. 4, a horizontal section on the line 4—4 of Fig. 1.

Referring to the drawing, the liner 10 of the refrigerator cabinet is provided at each point where a hook or support is to be placed with a vertically disposed slot 11 provided centrally with a circular enlargement 12, said slot and enlargement forming an aperture through which the forked or T-shaped extremity 13 of a shelf hook 14 is adapted to be inserted, such forked extremity being connected with the main body of the hook by means of an enlarged shank 15 circular in shape to correspond with the central portion of the slots in the liner. Actually the reverse is true the slot being of a shape to accommodate the shank 15 of the hook.

A washer 16 is fixed by welding or otherwise on the support against the shoulder formed by the enlarged portion 15 and between this washer and the liner a gasket 17 is preferably located which serves not only to prevent injury to the liner but to tension the support against a liner.

The forward end of the shelf hook or support is extended laterally substantially at right angles to the main body of the device and by means of this lateral portion the hook may be rotated after the extremity 13 is inserted through the slot in the liner, to bring the forked extremity in a position across the slot 11 to lock the support in place.

In order to fix the support in its proper position under tension with the laterally turned extremity uppermost, a spring locking plate 18 is provided which has a vertical slot 19 corresponding in shape and size to the slot 11 in the liner and with two sets of ears or tabs 20 struck up to engage the forked extremity of the support, one set of tabs being preferably located at each side of the slot, however, only one set being required. The plate 18 is formed of spring metal and is

curved or convex, as shown in Fig. 1, so that when the hook or support is applied with its forked extremity 13 extending through the slot 19 in the plate, a rotation of the hook 90° will bring the extremity 13 in a horizontal position between the struck up tabs 20 forming each set, this operation serving to depress the spring clip and ears 20 until it rides into its final position and in which position it will prevent further turning of the hook and the spring pressure of the plate 18 will hold the hook tightly in place with the gasket 17 snugly engaging the liner.

It will be obvious to those skilled in the art that various other changes may be made in the construction and arrangement without departing from the spirit of the invention, and therefore the invention is not limited to what is shown in the drawing and described in the specification but only as indicated in the appended claims.

What is claimed is:

1. A shelf support comprising a shank having a T-shaped head for insertion through a slot in a liner, and a similarly slotted spring plate adapted to engage said T-shaped head and hold the same in fixed position.

2. A shelf support comprising a shank having a T-shaped head for insertion through a slot in a liner, and a similarly slotted curved spring plate adapted to engage said T-shaped head and hold the same in fixed position.

3. A shelf support comprising a shank for engaging and supporting a shelf, said shank being provided with a T-shaped head for insertion through a slot in a liner and upon rotation of said head out of a position to coincide with said slot to secure said shank in position upon said liner, and a spring plate engaging said T-shaped head to resiliently maintain it in a fixed position.

4. In combination, a slotted wall, a shelf hook having a head adapted to be supported by said wall, said shelf hook having a washer for engaging one side of the wall and a closed metal spring plate, for engaging the opposite side of the wall and said head and resiliently clamping the wall between the washer and head.

5. In combination, a slotted wall, a shelf hook adapted to be supported by said wall, said shelf hook having a washer for engaging one side of the wall, a spring plate for engaging the opposite side of the wall and resiliently clamping the wall between the washer and plate, and means engageable upon relation of said hook for detachably connecting said spring plate and shelf hook.

6. In combination, a slotted wall, a shelf hook adapted to be supported by said wall, said shelf

- hook having a washer for engaging one side of the wall, a detachable spring plate for engaging the opposite side of the wall and resiliently clamping the wall between the washer and plate, and means for detachably connecting said spring plate and shelf support, said means including cooperating bayonet sections on the support and plate.
7. In combination, a slotted wall, a shelf hook adapted to be supported by said wall, said shelf hook having a washer for engaging one side of the wall, a detachable spring plate for engaging the opposite side of the wall and resiliently clamping the wall between the washer and plate, means for detachably connecting said spring plate and shelf support, said means including cooperating bayonet sections on the support and plate, and means for maintaining the support and plate in a relatively fixed relation.
8. In combination, a slotted wall, a shelf hook adapted to be supported by said wall, said shelf hook having a washer for engaging one side of the wall, a detachable spring plate for engaging the opposite side of the wall and resiliently clamping the wall between the washer and plate, means for detachably connecting said spring plate and shelf support, said means including cooperating bayonet sections on the support and plate, and spring fingers on said plate for maintaining the support and plate in a relatively fixed relation.
9. A shelf hook comprising a shank, a washer fixed on said shank for engaging a plate by means of which the shank is supported, a laterally extending portion at the end of said shank, a convex plate provided with a slot through which said laterally extending portion is insertable, said shank being rotatable relative to said plate, means to lock the parts against relative rotary movement.
10. A shelf hook comprising a shank, a washer fixed on said shank for engaging a plate by means of which the shank is supported, a laterally extending portion at the end of said shank, a convex plate provided with a slot through which said laterally extending portion is insertable, said shank being rotatable relative to said plate, means to lock the parts against relative rotary movement, and spring fingers on said plate for performing said locking means.
11. A shelf support comprising a shank having a supporting end and a supported end, an enlargement carried by said supported end, an enlargement carried by said shank intermediate its ends, and a resilient element carried by said shank intermediate said enlargements engageable with said enlarged end by rotary movement.
12. In combination, a shelf hook, a slotted wall, an enlargement carried by the shelf hook for registration with the slot in the wall and resilient means engageable by rotary movement with said shelf hook preventing its withdrawal from said wall.
13. In combination, a wall and a resilient plate provided with registering non-circular openings and a shelf hook provided with an enlargement for registration with the registering openings in a selected position, said enlargement holding said hook, wall and plate in assembled relation in another selected position.
- WILLIAM HERBERT ELLIS.

CERTIFICATE OF CORRECTION.

Patent No. 1,930,645.

October 17, 1933.

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It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 1, line 107, claim 5, for "relation" read rotation; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 21st day of November, A. D. 1933.

F. M. Hopkins

(Seal)

Acting Commissioner of Patents.