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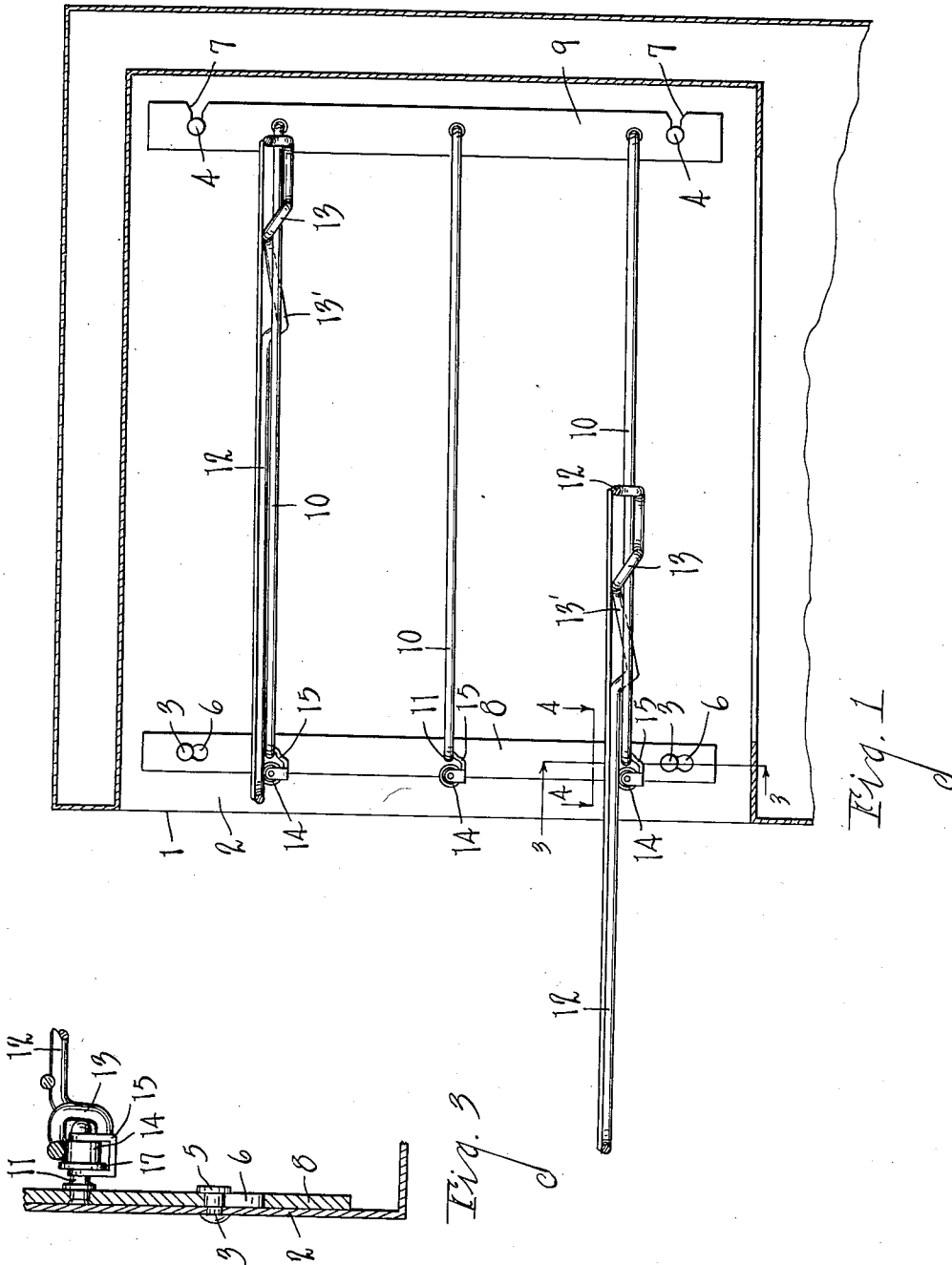
C. T. HATCH

1,946,532

RACK FOR REFRIGERATORS, OVENS, AND THE LIKE

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2 Sheets-Sheet 1



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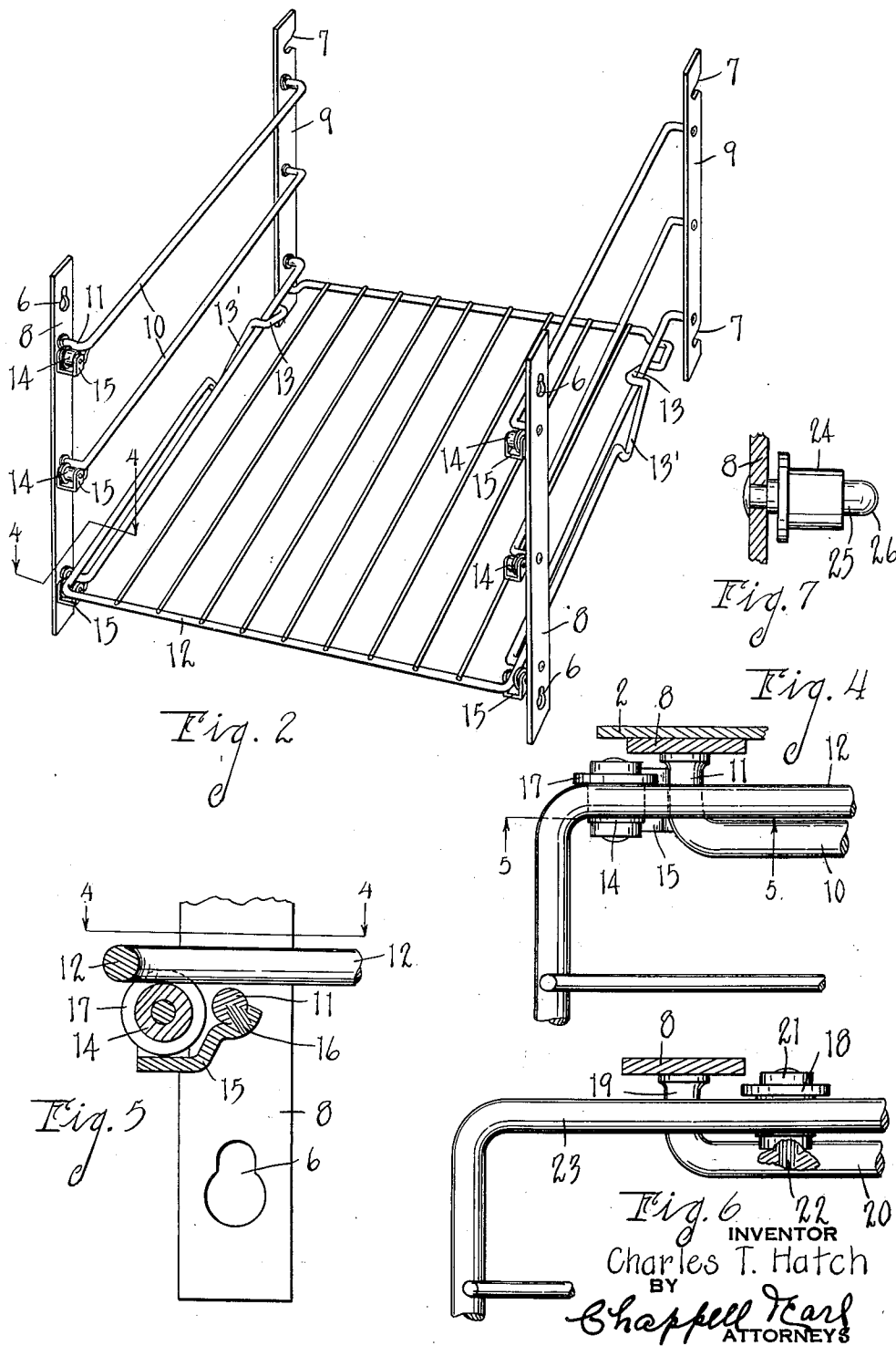
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UNITED STATES PATENT OFFICE

1,946,532

RACK FOR REFRIGERATORS, OVENS, AND
THE LIKECharles T. Hatch, Albion, Mich., assignor to Union
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Application January 11, 1932. Serial No. 585,817

2 Claims. (Cl. 211-143)

The main objects of this invention are:

First, to provide a rack for refrigerators, ovens and like compartments which may be readily installed or assembled in a compartment as a unit.

Second, to provide a rack structure having these advantages which also permits ready removal for purposes of cleaning and re-assembling within the compartment by persons other than mechanics and without the aid of tools.

Third, to provide a structure having these advantages having sliding shelves in which the shelves are very easily operated and may, if desired, be entirely removed from the compartment with a minimum of tilting or other manipulation of the shelf.

Fourth, to provide a structure having these advantages which is comparatively simple and economical in structure.

Objects relating to details and economies of my invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a fragmentary vertical section of a structure embodying my invention.

Fig. 2 is a perspective view of the rack removed from the compartment.

Fig. 3 is an enlarged fragmentary transverse section on a line corresponding to line 3-3 of Fig. 1.

Fig. 4 is a fragmentary horizontal section on a line corresponding to line 4-4 of Figs. 1, 2 and 5.

Fig. 5 is an enlarged fragmentary section taken on line 5-5 of Fig. 4.

Fig. 6 is a view similar to Fig. 4 of a modification, showing the shelf moved outwardly a short distance, and

Fig. 7 is a detail view of a further modification.

In the accompanying drawings, I show my improvements as embodied in an oven designated generally by the numeral 1 and shown mainly in conventional form. It will be understood, however, that my improvements are adapted for use in compartments wherever sliding shelves are required, being particularly desirable for use in refrigerators.

The side walls 2 of the compartment are provided with inwardly projecting vertically spaced studs 3 and 4 having heads 5, there being a pair of studs on each side wall disposed adjacent the rear of the compartment and a pair of them disposed adjacent the front of the compartment.

These studs are adapted to engage slots 6 and 7 respectively in the front and rear rail supporting bars 8 and 9.

The rails 10 have outwardly upturned ends 11 which are fixedly secured to these bars, the rails and bars coacting to provide shelf supporting units which are detachably engageable with the studs. The slots 7 of the rear supporting bars extend from the rear edge of the embodiment illustrated while the slots 6 are key hole slots disposed with their small ends upwardly. Thus arranged, the shelf units can be engaged with the studs by slipping the rear slots 7 over the rear studs and passing the heads of the studs 3 through the larger portions of the key hole slots and then dropping the bars 8 downward. There is enough looseness in the fit of these parts so that this can be done easily, the operations being reversed to remove the supports. This arrangement of parts is particularly desirable in refrigerators or ovens having porcelain linings or other linings that it is desired to keep in a sanitary condition.

The racks or shelves 12 are provided with border frames, the side members of which have offsets 13 and 13', the offsets 13 being inward offsets and the bight portions thereof being inclined rearwardly and downwardly so that the upper arms of the offsets lie above and ride upon the rails while the lower arms thereof project below the rails to support the front end of the shelf against downward tilting when the shelf is drawn forwardly. The offsets 13' extend downwardly from the upper arms of the offsets 13 and lie at the outer sides of the rails constituting supporting means limiting the lateral movement of the shelf and preventing its being bumped into the wall of the compartment and also constituting stops which coact with the laterally turned ends 11 at the front of the rails limiting the forward horizontal or sliding movement of the rack. The front end of the rack, however, may be tilted up to lift these stops over the coacting stops formed by the ends of the rails and the rack may then be completely withdrawn from the compartment and replaced therein by a reversal of this motion.

For facilitating the sliding movement of the shelves, supporting rollers 14 are provided at the front ends of the rails, these rollers being journaled to brackets 15, the brackets being, in the embodiment shown in Figs. 1 and 2, welded to the laterally turned ends of the rails. The rollers are provided with flanges 17 which serve to guide the shelf in its movement. The brackets are shaped, as shown in Fig. 5, so as to support the rollers in alignment with the rails.

In the embodiment shown in Fig. 6, the rollers 18 are positioned on the inside of the ends 19 of the rails 20 and in that case the brackets 21 are welded to the under sides of the rails as at 22.

5 In Fig. 7, the rollers are located directly on the out-turned ends 25 of the rails 26.

While I have described my improvements in connection with an oven, it will be apparent to those skilled in the art that my device is equally applicable to other uses, as for example, refrigerators and the like.

10 The device is economical to manufacture and is highly effective and efficient in operation, the rollers at the front of the construction reducing the sliding friction of the shelves to a minimum which facilitates their easy movement without jerkings or sudden stops.

15 It is obvious that various changes and modifications may be made in the details of construction and design of the above specifically described embodiments of my invention without departing from the spirit thereof, such changes and modifications being restricted only by the scope of the following claims.

20 Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. The combination with supporting rails provided with bearing members at the front ends thereof, and a shelf comprising a border frame, the side members of which are slidably supported on said bearing members and have inwardly projecting loop-like offsets adjacent their rear ends, the bight portions of the offsets being inclined rearwardly and downwardly so that the front arms of the offsets ride upon the rails and the rear arms thereof extend below the rails, said side members also having downward offsets extending from the front arms of said lateral offsets and disposed at the outer sides of the rails and constituting stops coacting with stops at the front ends of the rails.

2. The combination of shelf supporting rails, and a shelf comprising a border frame, the side members of which have inwardly projecting loop-like integral offsets adjacent their rear ends disposed so that the front arms of the offsets are above the rails and the rear arms thereof below the rails, said side members also having downward integral offsets extending from the front arms of said lateral offsets and disposed at the outer sides of the rails and constituting stops co- 100 acting with stops at the front ends of the rails.

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