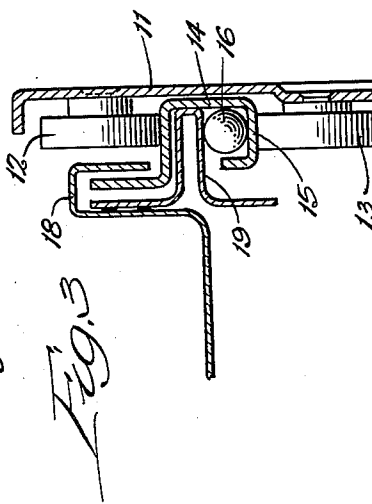
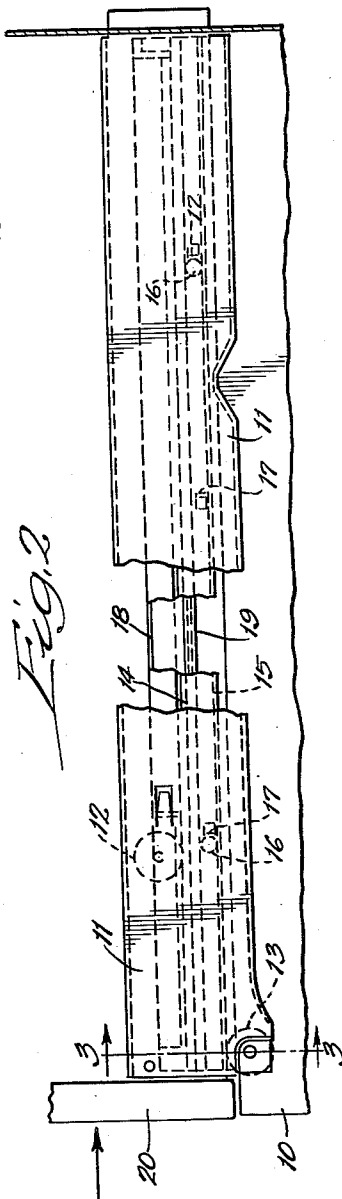
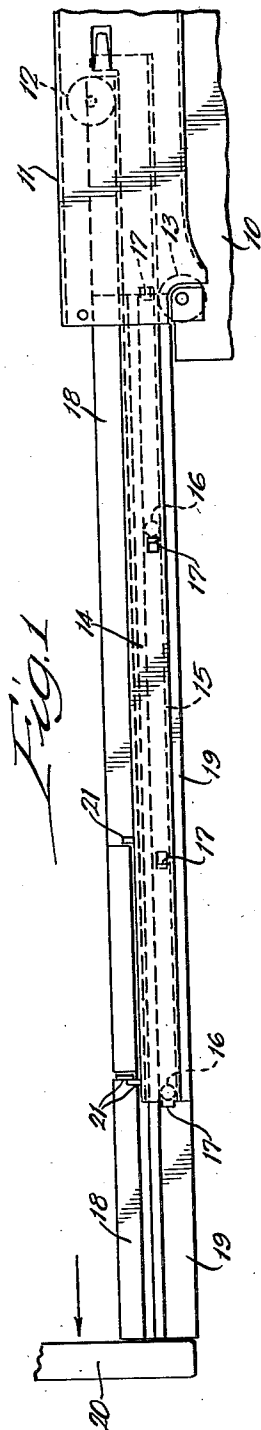


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STOVE DRAWER TRACK
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STOVE DRAWER TRACK

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1 Claim. (Cl. 312—339)

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This invention relates to a stove drawer track and more particularly to track mechanism for supporting a broiler drawer or other range drawer within a compartment of a range, the track permitting withdrawal of the drawer from the range.

Telescoping track members for supporting a broiler drawer or other drawer within a range compartment are unsatisfactory because of the tendency of the structure to tilt or shift during the movement of the drawer to extreme positions. A simple structure which will provide anti-friction supporting means for the drawer, while at the same time overcoming such tilting or wobbling action, has been greatly in demand.

An object of the present invention is to provide an improvement in track structures for ranges, in which extremely simple means are provided for reducing the friction of the parts, while at the same time providing a solidity and smoothness in operation not afforded by prior devices. Yet, another object is to provide a track structure for supporting drawers within a range, in which structures balls are freely mounted for running movement within tracks and in combination with roller bearings therefor. Other specific objects and advantages will appear as the specification proceeds.

The invention is illustrated, in a single embodiment, by the accompanying drawing, in which—

Figure 1 is a broken side view in elevation of the track structure embodying my invention, the track members being shown in extended position; Fig. 2, a broken side view in elevation of the track structure shown in position within the drawer; and Fig. 3, a vertical sectional view, the section being taken as indicated at line 3 of Fig. 2.

In the illustration given, 10 designates a portion of the range casing, which provides a broiler compartment, and in the lower portion thereof provides a support for the drawer tracks.

Within the compartment of the range and secured to each side wall thereof is a stationary drawer track 11. The drawer track 11 carries the rollers 12 and 13, as shown more clearly in Figs. 1 and 3.

Slideably mounted between rollers 12 and 13 is a floating track member 14, as shown more clearly in Fig. 3. The floating track member is provided at its bottom with a channel portion 15 providing a trough for freely receiving the balls 16. Stop lugs 17 are struck from the outer wall of the member 14 and turned inwardly to provide stops for the balls 16, as shown more clearly in Figs. 1 and 2.

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A body extension 18, which is part of the drawer itself, is assembled to the body track member having an extending flange or bearing 19, which rests upon the balls 16. It will be noted that the bearing 19 is riveted to the member 18 and extends longitudinally of the body extension 18. The door 20 of the drawer is secured to the forward end of the member 18.

With the structure shown, it will be noted that there are two stationary tracks 11 on opposite walls of the compartment and that a floating track 14 is carried by each of the stationary tracks 11. Further, the two body tracks 19 carried by the floating tracks 14, by means of the balls and bearings shown, in turn support the drawer door and drawer body.

The usual inter-engaging elements are carried by the body tracks 19 and the floating tracks 14 to cause them to move successively in the operation of the track members.

Operation

In the operation of the track members, as the drawer is pulled out, the body tracks 19 roll on the free floating balls 16. When the first portion of the pull-out is complete, two ears engage the floating tracks and they move out rolling on the ball bearing rollers. Their outer position is controlled by ears which engage the stationary tracks and the drawer movement then ceases. As the drawer is pushed in, the body tracks ride in on the balls until they engage the floating tracks, and then the floating tracks ride in to the closed position on the rollers 12 and 13 of the stationary tracks 11.

The design allows for the shift in weight as the drawer is pulled out. Thus, at the time the floating track is engaged, the weight shift takes place and the floating track rides between the ball bearing rollers. During the push-in movement, the reverse shift takes place.

In all of the above operations, the free balls 16 roll along their channels and prevent catching or tilting of the drawer-supporting elements. Should the drawer move slightly sidewise, the balls 16 readily permit this movement without any tilting action, while at the same time they run smoothly in their longitudinal course along their channels to effect the in and out movement of the drawer. Thus, it will be noted that the free ball structure is effective, by reason of its ability to move slightly laterally and with a full forward and backward movement, for supporting the drawer always in an even position and without any tendency of the supporting elements

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to jam or catch during their inward and outward movements.

The free ball and bearing structures are extremely simple, taking up a minimum of space in the track arrangement and providing an extremely sturdy supporting structure. Under varying temperature conditions, the free ball arrangement operates equally well.

The body tracks 18 and the floating tracks 14 may be equipped with any type of ears for limiting the movement of the two types of tracks. In the specific illustration given, the floating tracks 14 are provided with upwardly-extending lugs or ears 21 in spaced relation, and the body tracks 18 are provided with a single laterally-extending ear 21, which is limited in movement between the first two ears 21. Such structure may be varied widely as desired.

While in the foregoing specification, I have set forth certain specific arrangements in detail for the purpose of illustrating the invention, it will be understood that such details of structure may be varied widely by those skilled in the art without departing from the spirit of my invention.

I claim:

In a range equipped with spaced compartment walls extending rearwardly from a compartment opening in the front of said range, a pair of rollers carried by the front portion of each of said walls in vertically-spaced relation, the lower roller of each pair being adjacent said compartment opening and the upper roller of each pair being spaced inwardly from said opening, floating tracks slidably mounted between said rollers and supported thereby in a horizontal plane, each of said floating tracks having a channel bottom and having a laterally-extending upper portion equipped at its end with a vertical flange, balls freely supported by said channel bottoms and spaced from said laterally-extending upper por-

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tion of the floating track, body tracks slidably mounted in said floating tracks, and a drawer extending between said body tracks and rigidly secured thereto, said drawer being provided with a laterally-extending flange enclosing said vertical flange of each floating track and said body tracks having a laterally-extending U-shaped flange with spaced-apart legs, the lower leg of which rests upon said balls with the upper leg thereof in close spaced-apart relation to the laterally-extending portion of said floating tracks when said drawer has its center of gravity within said compartment, whereby, when said drawer is pulled outwardly it travels freely on said balls until its center of gravity passes over the lower rollers adjacent said compartment opening, whereupon the projecting portion of said drawer tips downwardly and causes the upper legs of said U-shaped flanges to frictionally engage the laterally-extending portions of said floating tracks, and thereafter said drawer travels outwardly on said rollers.

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