Nov. 11, 1952 D. A. STAFFORD 2,617,693

TRACK AND GUIDE CONSTRUCTION

Filed April 9, 1951

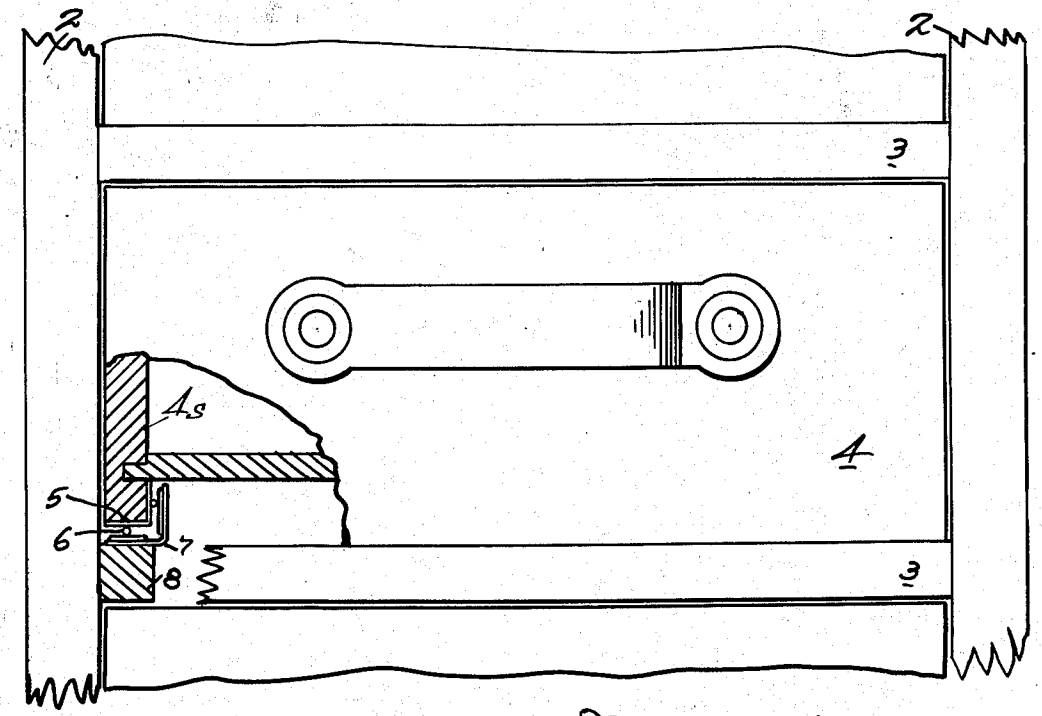


Fig. 1.

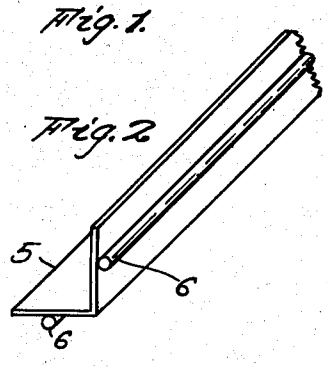


Fig. 2.

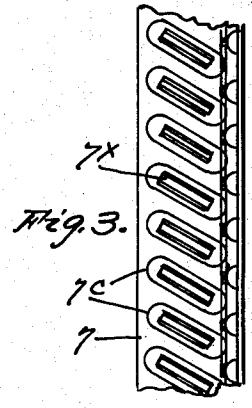


Fig. 3.

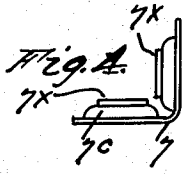


Fig. 4.



Fig. 6.

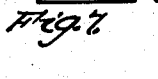


Fig. 7.

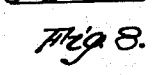


Fig. 8.

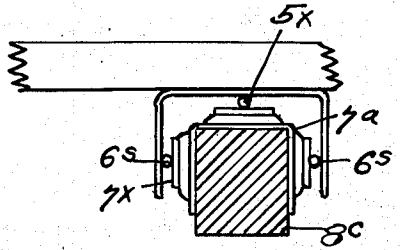


Fig. 5.

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UNITED STATES PATENT OFFICE

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TRACK AND GUIDE CONSTRUCTION

Dale Albert Stafford, Littlerock, Calif.

Application April 9, 1951, Serial No. 219,970

3 Claims. (Cl. 308—3.6)

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This invention is a track and guide construction, and involves certain features of the furring strip disclosed in Patent Number 2,061,050, dated November 17, 1936.

I have discovered that strips as shown in Fig. 5 of said patent when used in the construction as set forth in the instant disclosure afford a very practical part of track and guide means whereby to facilitate the relative sliding movement of mutually cooperative elements, say for example of drawers slidably mounted in cabinets, or in desks, and for panels shiftably supported in walls or partitions, and for innumberable other combinations where it is desirable to have quiet and easy shift of one element as to or on another structural element or elements.

An object of the invention is to provide a device which will accomplish the above stated functions, and to provide a track and guide device which is substantial, durable, light in weight, low of manufacturing cost and in installation expense.

Further, an aim of the invention is to provide a track and guide construction of such form of elements as to require but very small installation space; that is is not bulky in form, and whose parts may be closely nested for packaging, and warehouse and store stocking, and transportation.

The invention resides in certain advancements in this art as set forth in the ensuing disclosure and having, with the above, additional objects and advantages as hereinafter developed, and whose constructions, combinations and details of means and manner of installation and operation will be made manifest in the following description of the herewith illustrative apparatus; it being understood that modifications, variations, adaptations and equivalents may be resorted to within the scope, spirit and principles of the invention as it is claimed in conclusion hereof.

Figure 1 is a sectional front elevation of a cabinet in which the drawer rail is installed.

Figure 2 is a perspective of the runner or shoe member.

Figure 3 is a plan view of a portion of the rail member, and Figure 4 is an end elevation of the rail member.

Figure 5 is an end elevation of a form of the shoe and the rail and guide members as applied to an individual drawer supporting cleat.

Figures 6, 7 and 8 show a modification in which the corrugations of the track member run from side to side of the track.

The invention is here shown as incorporated in

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a desk or cabinet having vertical components **2** which are jointed to horizontal parts such as bars **3** between which latter is a conventional drawer **4**.

It is well known that such drawers are when fairly loaded hard to pull or push because of the friction set up by the customary flat, wide-faced meeting or bearing surfaces, and further because of poor fitting of the drawer there is tendency of the drawer to jam.

To remedy these objections this invention provides for the installation of one or more of pairs of mutual or cooperative shoe and rail assemblies one of which has functional movement as to the other; and either of which may be the stationary part, the other the movable according to the given case of installation.

In Fig. 2 there is shown, in detail, a shoe **5** formed of light-weight sheet metal, preferably, bent to present right-angle flanges each of which has, along its outer face, a medial longitudinal traction wire **6**. Fig. 1 shows such a shoe with its re-entrant faces fitted and secured as by gluing or otherwise to the bottom, inner corner of a side **4***s* of a drawer so that one traction wire faces inwardly and the other faces downwardly. It is understood that such shoes will be affixed to both sides of a given drawer, usually.

These applied shoes are adapted to slide longitudinally along a respective track and guide device shown in Figs. 3 and 4 as comprising a member **7** of angle-iron cross section to present side and bottom flanges. Each of the sides of said member is provided with a row of parallel beads or corrugations **7***c* which run diagonally as to the length of the flanges. Each of the corrugations is medially, longitudinally perforated and the edges of the perforations are each bent outwardly as to the ridge of its corrugation to form short, stiff, parallel lips **7***x*.

The cabinet or desk as the cae may be is provided with horizontal, front to rear, stationary cleats **8** and Fig. 1 shows a track member **7** suitably fixed to the top face of such a cleat, as by gluing, in such a position that the shoe wires **6** will track along the rows of lips **7***x* of the fixed track member. The bottom wire of the shoe will transmit the vertical load of the drawer and the side wire of the shoe will take the side thrust reactions of the vertical flange of the fixed track.

Fig. 5 shows a modification of the track assembly for use when there is a central track cleat **8***c* in place in the desk or cabinet. In this form the shoe has side flanges each provided with side bearing wires **6***s* to engage cooperative track

lips 7x of a fixed track member 7a here of inverted, channel form and having a top row of lips to receive the vertical pressure wire of the shoe 5x which is of inverted, channel section. It will be seen that this form of channel track and guide device provides two-side control along the fixed cleat 8c and a top, vertical load track for stability and easy operation of the respective drawer.

In some constructions the track member may consist of a simple straight narrow strip 7s, Figures 6, 7, and 8 having the beads or corrugations extending fully from side to side of the strip. And in this case the shoe member is also a straight strip 5s about equal in width to the width of its track strip 7s. This constitutes a cheaper form of shoe and track than that shown in Figs. 2, 3 and 4, or in Fig. 5.

What is claimed is:

1. A track and guide assembly for relatively movable elements one of which bears the other operatively; said assembly including an elongated member and a relatively slidable member one of said members having a row of transverse, convex, parallel corrugations along one face and the other member having an elongated traction part operatively bearing on the top portions of the

said corrugations; the said traction part consisting of a section of wire fixed rigidly along its respective member and riding on a plurality of said corrugations.

2. The assembly of claim 1; and said corrugations being diagonal to the axis of the member and of the wire.

3. The assembly of claim 1; the ridges of the corrugations having punch holes with longitudinal outstanding bearing lips.

DALE ALBERT STAFFORD.

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The following references are of record in the file of this patent:

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