Oct. 27, 1970 J. L. LEIFER 3,536,345

TRACK FOR STEEL STUD PARTITIONS

Filed July 26, 1968

Fig. 1.

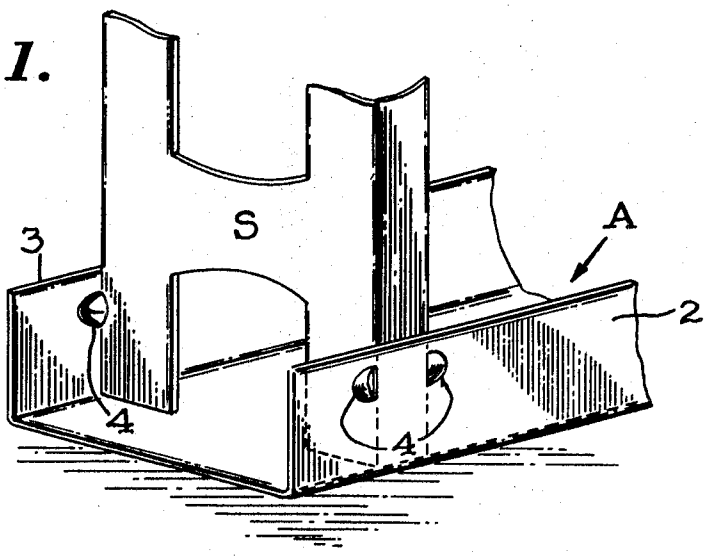


Fig. 2.

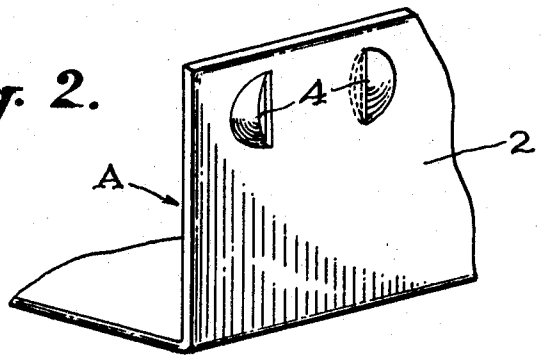
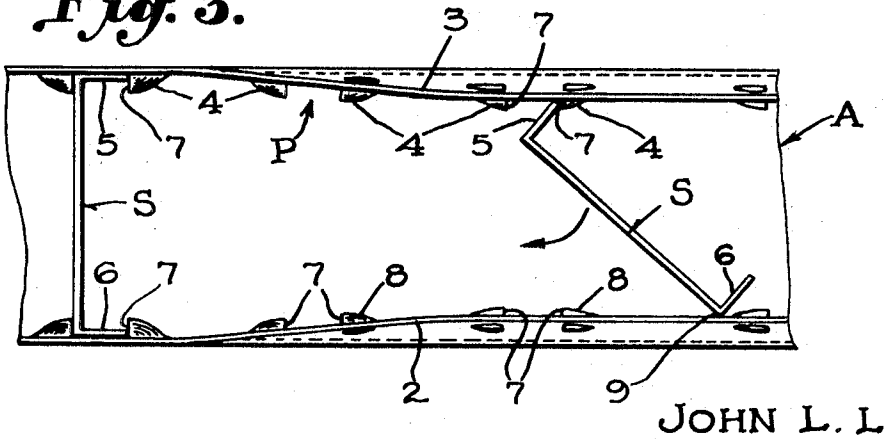


Fig. 3.



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TRACK FOR STEEL STUD PARTITIONS

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U.S. Cl. 287—54 1 Claim

ABSTRACT OF THE DISCLOSURE

A track for use in constructing steel stud partitions has inwardly inclined resilient sidewalls provided with stud receiving pockets formed by spaced pairs of lugs struck inwardly from the sidewalls. The space between the upper edges of the sidewalls is less than the width of the stud so that when the stud is inserted obliquely of the track with one side of the stud engaged in a pocket on one wall and the other side disposed between pockets on the opposite wall, rotation of the stud spreads apart the sidewalls and the stud is snapped into position in oppositely disposed pockets.

This invention relates to a building construction element and more particularly to improvements in steel runners or tracks for receiving vertical stud members used in the construction of walls and partitions.

Known types of stud tracks frequently employ metal shoes or clips for attaching the studs to the tracks and different types of attaching means are used for securing the studs to the floor track or ceiling track. This occasions the use of additional parts and the necessary manufacturing operations to make such parts which, of course, results in a product of higher initial cost and also greater labor costs during erection of a wall or partition due to time-consuming assembly procedures.

One of the objects of the invention is to provide a novel channel shaped track to be attached to a floor and ceiling, said track having special features which facilitate erection of studs without the necessity of using special attaching means, welding tools or other implements resulting in a considerable saving in time and cost.

Another object of the invention is to provide a channel shaped track whose opposite resilient sidewalls are initially formed to normally converge toward each other to narrow the entrance to the channel, thereby permitting a vertical stud of greater width than the width of the entrance to the channel to be placed between the edges of the sidewalls and then be angularly rotated in a manner to spread the walls of the channel to securely grip the vertical studs in position.

Another object of the invention is to provide the resilient sidewalls of the track with spaced pairs of pocket forming lugs which hold and grip the edges of the stud so that once they are in the proper position they are firmly secured in place without further attention due to the combined effect of the spacing of the lugs and the inherent resiliency of the sidewalls of the track.

Other objects will appear as the description proceeds.

In the drawings:

FIG. 1 is a detail perspective view of a track member and a stud interlocked at a selected location.

FIG. 2 is a fragmentary perspective view on a larger scale of one of the walls of the track.

FIG. 3 is a diagrammatic top plan view of a track formed in accordance with the present invention, with one stud already in position and a second stud about to expand the track wall at the location of the selected opposite pairs of studs prior to being rotated to secure it in assembled position.

As will be seen from FIG. 1 the track is designated generally as A and includes opposite spaced resilient sidewalls 2 and 3 whose upper edge portions are bent inwardly to provide an access opening of less width than the width of the studs. Each of the sidewalls 2, 3 are provided at selected intervals with stud receiving pockets P comprising inwardly punched protrusions or lugs 4, arranged in pairs at selected locations preferably near the top edge of the sidewalls no lower than the longitudinal center line of the sidewall. The spacing of each pair of pocket forming lugs is equal to the width of the flanges 5, 6 of the stud S to grip the stud flanges firmly when the partition is erected. The lugs each include a stud confining shoulder 7 whose surface is perpendicular to the related sidewall and to facilitate positioning of the stud in a pocket the lug has an inclined ramp 8 leading to the edge of the shoulder 7.

As will be more readily observed from FIG. 3, during the erection procedure the free edge of flange 5 of the stud S is engaged against sidewall 3 and the shoulder 7 of a lug 4 to provide a fulcrum point as the stud is rotated in the direction of the arrow. This rotation of the stud causes the corner edge 9 of the web of the stud adjacent flange 6 to engage sidewall 2 and spread apart both sidewalls as the stud is moved in the direction indicated. As the stud is further rotated, edge 9 thereof rides up the inclined ramp 8 of the lug 4 and the flange 6 snaps into position between the opposed stud retaining shoulders 7 of related lugs as indicated by the stud shown in final position on the left side of FIG. 3. Thus, there is a two-fold gripping action provided for the stud, first by the tension of the resilient inwardly converging sidewalls and second by the opposed pairs of spaced lugs. The gauge of the track material is lighter than the gauge of the stud so as to insure sufficient deflection of the sidewalls of the track and minimal displacement of the stud flanges during the installation procedure.

In practice it will be understood that the stud track is adapted for use not only on the floor of a structure within which the wall or partition is being constructed, but it is also used as a ceiling runner track for receiving and retaining the upper ends of the studs between related and aligned pairs of pocket defining lugs. The track may be fastened to the floor or ceiling by nails or other appropriate fasteners.

During the course of manufacture the lugs are arranged in pairs at a plurality of given locations so that the installer of the studs will have a wide selection of placing the stud in the desired position. In practice, a spacing of the pairs of studs at two inch intervals has been found desirable, but of course, this may be varied as circumstances require.

It is to be understood that the invention is not limited to the specific features shown, but that means of construction herein disclosed comprise the preferred form of several modes of putting the invention into effect and the invention will therefore be understood in any of its forms or modifications within the legitimate and valid scope of the appended claim.

I claim:

1. A track for use with a stud having oppositely disposed flanges, said track comprising, a channel shaped body including a bottom wall and oppositely disposed resilient sidewalls, said sidewalls continuously inclined toward each other throughout their entire length at a substantially constant angle to provide a stud receiving opening of less width than the width of the stud to be assembled therewith, a plurality of spaced oppositely dis-

posed stud receiving pockets on the inner faces of each of said sidewalls, said pockets defined by a pair of lugs struck from each of said sidewalls at a point three fourths the distance between the bottom and top edges thereof so as to be adjacent the top edge thereof and extending inwardly of said sidewalls, each pair of said lugs including stud confining shoulders perpendicular to the related sidewalls and inclined camming surfaces opposite said stud confining shoulders and connecting said stud confining shoulders with the sidewalls of the track, whereby when a stud is inserted obliquely between the upper edges of said sidewalls adjacent selected oppositely aligned pockets and rotated about its axis, the sidewalls are flexed and permit the stud to be positioned between said opposed stud confining shoulders.

References Cited

UNITED STATES PATENTS

1,515,159	11/1924	Morrison	287—189.36
2,105,771	1/1938	Holdsworth	52—241 XR
2,934,184	4/1960	Moser	287—189.36
3,027,983	4/1962	Fink	287—189.36 XR
D. 203,133	12/1965	Senek et al.	52—241

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