May 30, 1944. E. H. HURLEY 2,350,113

PORTABLE SUPPORT

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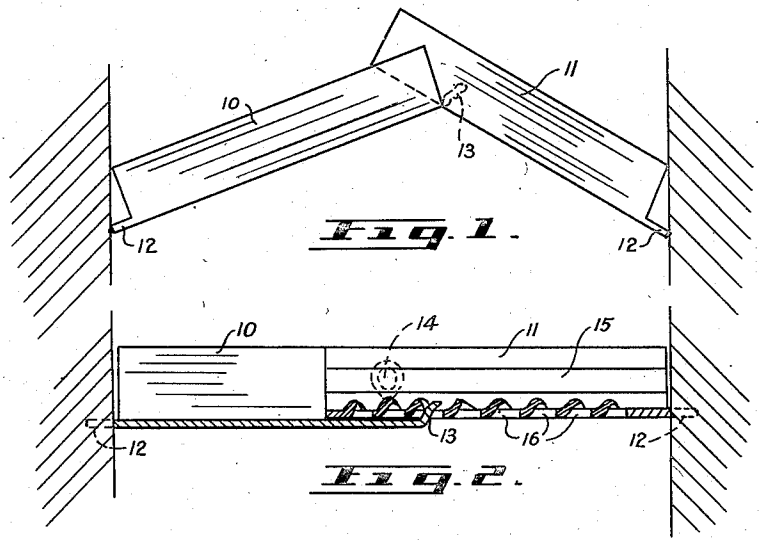


Fig. 1.

Fig. 2.

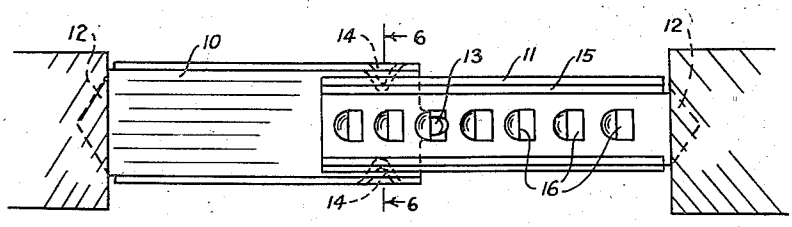


Fig. 3.

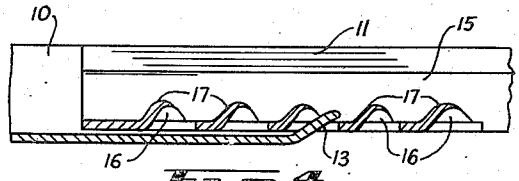


Fig. 4.

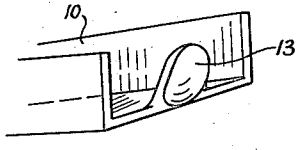


Fig. 5.

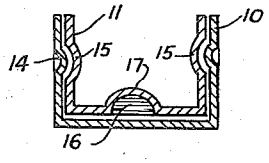


Fig. 6.

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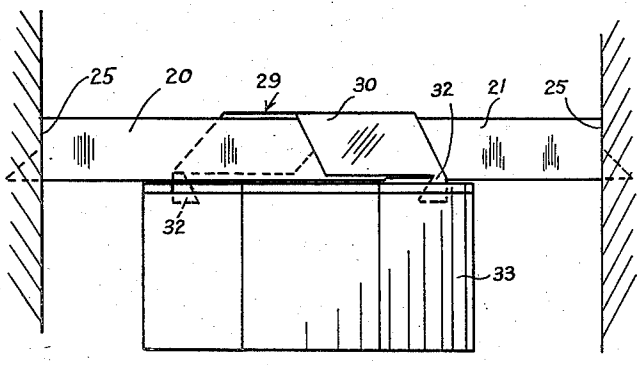


Fig. 7.

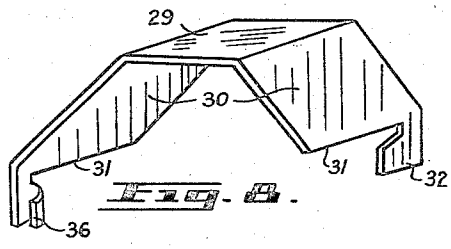


Fig. 8.

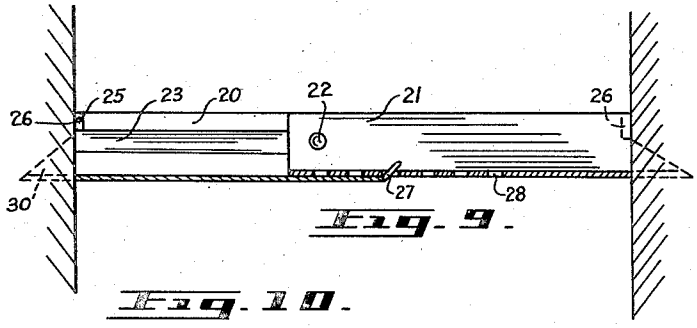
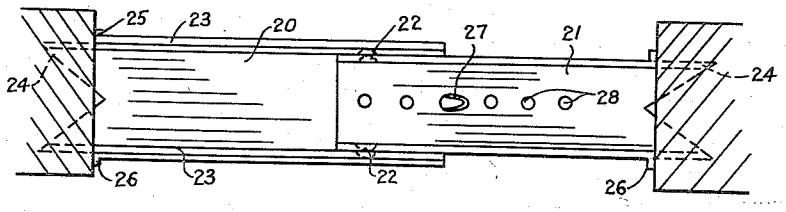


Fig. 9.

Fig. 10.



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UNITED STATES PATENT OFFICE

2,350,113

PORTABLE SUPPORT

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Application November 10, 1942, Serial No. 465,151

1 Claim. (Cl. 248—354)

This invention relates to an improvements in adjustable portable supports designed primarily for use in supporting plumbing pipes, electric light fixtures or the like, the primary object of the invention being to provide means which may readily and easily be secured in position to support various types of articles without the use of nails, bolts or the like and which may be easily removed.

In particular, my invention has for an object, the production of improved channel sections and cooperating locking parts to the end that the sections may be more easily connected and locked together in an efficient manner and which moreover may be easily stamped out and produced.

A further important object of my invention is the provision of an attachment saddle in combination with the support whereby electrical outlet boxes and similar devices may be supported from the support.

Other prominent objects are to provide a device of this character which may be easily adjusted, adapting it for use between walls or supporting beams of various widths and which when placed in position will be securely held in place and cannot become displaced under the weight of the article supported thereby, the weight in fact increasing the security of the support.

With the above noted and other objects in view which may appear as the description proceeds the invention resides in the novel construction, combination and arrangement of cooperating parts as hereinafter more specifically set forth, claimed and shown in the accompanying drawings forming part of this application, and in which:

Fig. 1 is a side elevational view illustrating the support so placed between adjacent walls or supporting beams prior to the moving of the sections of the support to their active supporting position.

Fig. 2 is a longitudinal sectional view of the support in its locked position ready for the support of an article.

Fig. 3 is a top plan view of the support illustrated in the position shown in Figure 2.

Fig. 4 is a fragmentary sectional view showing the cooperating locking parts in detail.

Fig. 5 is a fragmentary perspective view of the tongue, one element of the locking parts of the sections.

Fig. 6 is a transverse sectional view through the line 6—6 of Figure 3.

Fig. 7 is an elevational view illustrating the attachment saddle mounted on the support and showing an electrical outlet box attached thereto.

Fig. 8 is a perspective view of the attachment saddle.

Fig. 9 is a longitudinal sectional view of a modification of the support.

Fig. 10 is a plan view thereof.

Referring more in detail to the drawings in which similar reference characters designate corresponding parts throughout the several views it will be seen that the invention consists of a pair of sections 10 and 11, constructed of channel bar material, the section 10, being wider than the section 11, so that the section 11, may fit in the section 10, and slide longitudinally thereof.

The base portion of the outer ends of each section are extended drawn to a point to form a piercing prong 12 which, together with the shoulders formed by the extremities of the side walls of the channel sections provide means whereby when the prongs are forced into the walls, beams or the like the support is rigidly held in position the said shoulders being designed to restrict undesirable movement of the prongs within the surface. This embodiment is shown in Figures 1, 2 and 3, in detail. The prongs are designed to spread the grain.

The section 10, is formed with a tongue 13, extending from the base at the opposite or inner extremity in an upwardly inclined manner, the said tongue preferably being stamped in the base centrally of the side walls with a concavo-convex surface for easier engagement with the openings of the complementary section to be hereinafter explained in detail. Near the extremities of the side walls of the member 10 and directly opposite each other are punched-out projections 14, adapted to engage with longitudinally disposed grooves 15 in the complementary section when the sections are moved into longitudinal alinement. The curved tongue 13, will withstand great shearing stresses.

The longitudinally disposed grooves 15, extend the length of the section 11, in the outer face of the side walls arranged to receive the projections 14, when the sections are snapped together irrespective of the total length desired. The base of the section 11 is provided with a plurality of openings 16 stamped through the base, the openings consisting of a tri-sided cut with the metal bounded by the cut being raised or stamped upward to form a guiding channel 17, for the purpose of directing the tongue into the opening at a predetermined position when the sections are locked.

In the modification of Figures 7, 9 and 10, the sections 20, and 21, have the inner channel member 21 provided with projections 22, similar to the projections 14, and the outer section or channel member 20, is provided with longitudinal grooves 23, in the inner face of the side walls but otherwise similar to the grooves 15. The outer ends of the sections 20 and 21, are formed to provide forked prongs and shoulders 25, disposed directly above the prongs as indicated in Figures 9 and 10, are designed to engage the wall or the like when the prongs are forced into same. The shoulders 25, may be complemented by transversely extending flanges 26, which are bent to the side and formed from the excess material above the prongs to prevent the shoulders from sinking into the wood.

The member 20, is provided on its inner extremity with a flat tapered tongue 27, upwardly inclined and preferably formed integral with the base of the member 20. The tongue 27, extends through any one of a plurality of orifices 28, disposed in longitudinal alignment through the base of the member 21, in an angular position so that downward vertical movement is restricted without impairing upward vertical movement of the support when it is desired to disengage and remove same.

The attachment saddle of Figure 8, is adapted to rest upon the support shown in each illustration and consists of a strip of metal bent at right angles and on the bias at each end to form a narrow top portion 29, and depending side portions 30, which have horizontal basil edges 31 and depending tabs 32, at the outer extremity of the said basil edges. The tabs 32, are enlarged or provided with a toe at their free extremity and are curled back on themselves as shown by the left hand tab in Figure 8, so that they may be inserted through standard apertures in the top of an outlet box 33, or the like. When the tabs are disposed through the apertures in the outlet boxes they are straightened as shown by the right hand tab of Figure 8, so that the outlet boxes are firmly secured to the tab. The said saddle is of a predetermined size to correspond to the universal dimensions and spacing of the apertures in electrical outlet boxes and other fixtures. It will be observed that the side portions 30, do not extend below the support so that the outlet box is drawn tightly against the bottom of the support when the tabs are straightened, thus assuring rigidity of the assembly.

From the foregoing it will be seen that due to the construction shown and described, I have provided a simple readily adjustable support of the character described which may be set for length between two supporting surfaces and moved to its active supporting position by moving the inner ends of the sections downwardly into direct contact in alignment with each other and which may be readily disengaged from this semi-locked position. It will also be noted that the device includes an attachment saddle for carrying various types of articles and by making the sections of light attractive material the support may be used for office or household purposes and the like such as for carrying clothes hangers.

It is believed that the construction and advantages of the device may be apparent from the foregoing paragraphs taken in conjunction with the accompanying drawings without further detailed description.

While the preferred embodiment of the invention has been disclosed it is understood that minor changes in the details of construction, combination and arrangement of cooperating parts may be resorted to within the scope of what is claimed without departing from the spirit of the invention.

I claim:

A portable support comprising inner and outer sections said inner section having openings formed therein, a concavo-convex tongue on the inner end of the outer section adapted to engage in an opening of the inner section, pivotally connecting the sections, and projections on the outer section adapted to extend into longitudinal grooves on the inner section securing the sections in their extended positions, and spurs on the outer ends of said sections adapted to be embedded into a supporting surface.

EARL H. HURLEY.