Jan. 3, 1956 A. J. ANDERSON ET AL 2,729,527

COMBINATION FOLDING LEG HINGE, LATCH AND BRACE,

Filed Oct. 20, 1954

Fig. 1.

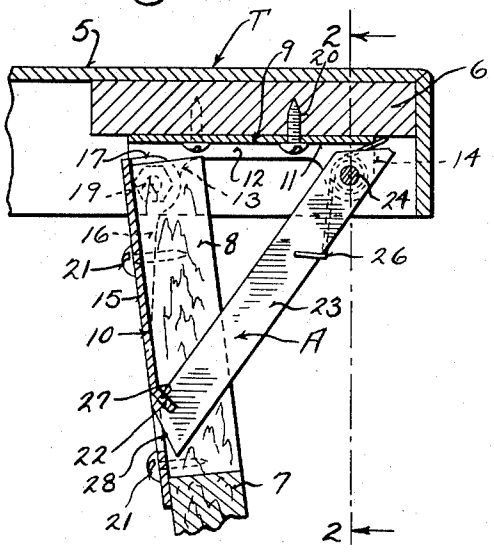


Fig. 2.

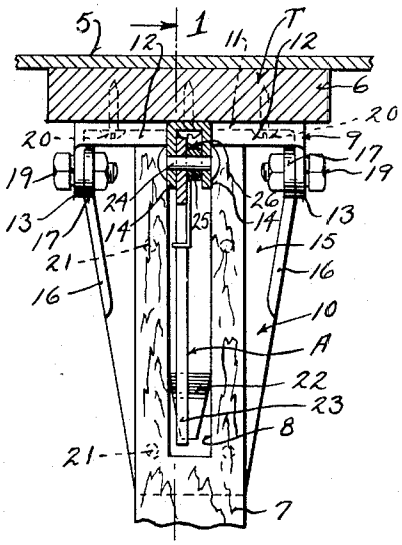


Fig. 3.

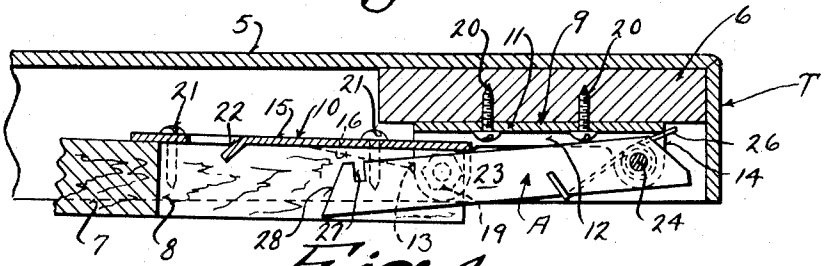
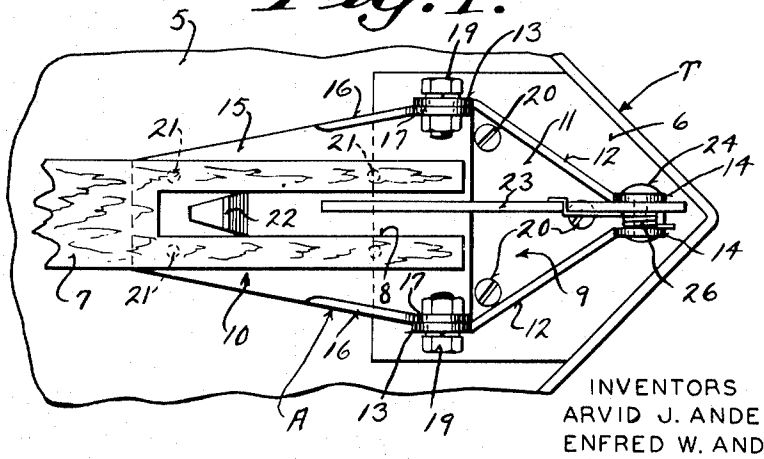


Fig. 4.



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COMBINATION FOLDING LEG HINGE, LATCH, AND BRACE

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Application October 20, 1954, Serial No. 463,488

2 Claims. (Cl. 311—98)

This invention appertains to hinges for folding furniture, such as tables, and is an improvement over our Patent No. 2,621,992 issued to us December 16, 1952, and our pending application Serial Number 381,812 filed September 23, 1953, now Patent No. 2,708,145.

One of the primary objects of this invention is to provide a combination folding leg hinge, latch and brace embodying companion leaves for connection respectively with a top and a leg, the leaves being so formed as to provide a rugged construction and a simple means for pivotal connection and a support for the combination latch and brace.

A further important object of the invention is the provision of means for reinforcing the leaves of the hinge, which consists in the formation of flanges on the edges of the leaves, with the flanges so-formed as to provide bearings for the pivot bolts utilized to connect the leaves together and pivot ears for the combination latch and brace.

With these and objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described and claimed, and illustrated in the accompanying drawing, in which drawing:

Figure 1 is a fragmentary vertical sectional view through one corner of a table taken on the line 1—1 of Figure 2, looking in the direction of the arrows showing our novel hinge assembly, brace and latch incorporated therewith and with a leg in its set up operative position;

Figure 2 is a view similar to Figure 1, but taken at right angles thereto on the line 2—2 of Figure 1, looking in the direction of the arrows;

Figure 3 is a view similar to Figure 1, but showing the leg in its collapsed folded position, and

Figure 4 is a fragmentary bottom plan view of a table showing our assembly incorporated therewith, the leg being illustrated in its folded collapsed position.

Referring to the drawing in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter A generally indicates our combination hinge, latch and brace assembly for an article of furniture, such as a table T.

The table T can be of any preferred character, and includes a top 5 having corner brace blocks 6. Our assembly A is employed for hingedly connecting a folding leg 7 of the table with the table top. In accordance with our invention, the upper end of the leg 7 is provided with a longitudinally extending slot 8, which opens out through the extreme upper end of the leg.

The assembly A includes an upper leaf 9 for connection with the table top and a lower leaf 10 for connection with the leg 7. The leaves are preferably fabricated from sheet metal of the desired gauge and are formed in a novel fashion to provide a rugged construction.

The upper leaf 9 includes a flat plate 11 of a substantially triangular shape and the side edges of the plate 11 have formed thereon right angularly extending depending flanges 12. The inner ends of the flanges 12 are extended to form hinge ears 13 for a purpose, which will later appear. As best shown in Figure 4, the outer ends of the flanges 12 at the narrow portion of the plate 11 are extended to form pivot ears 14 and these ears are arranged in spaced parallel relation.

The lower hinge leaf 10 also includes a flat body plate 15 and formed on the side edges of this plate adjacent to its inner end are right angularly extending flanges 16. The extreme inner ends of the flanges are extended to provide hinge ears 17.

In assembling the leaves 9 and 10, the hinge ears 13 and 17 are placed in facial relation and the ears are of course, provided with openings for the reception of pivot bolts 19. By this arrangement, the leaves are connected together for swinging movement and the leaves are thoroughly braced and reinforced by their flanges.

The upper leaf 9 is provided with openings for the reception of wood screws 20, whereby this leaf can be quickly secured to the brace block 6 of the table top. The inner face of the lower leaf 10 receives the upper end of the leg 7 and this leaf 10 is provided with openings for receiving wood screws 21 for connecting the leg with the leaf. The leaf 10 at a point spaced from its inner edge is provided with an inwardly struck keeper tongue 22.

Associated with the hinge leaf 9 is the combined latch and brace bar 23, and the same is carried for swinging movement by the pivot ears 14. A rivet 24 extends through the ears 14 and the upper end of the bar, and the bar turns on this rivet. A spacer sleeve 25 is placed on the rivet 24 between the bar 23 and one pivot ear 14 and functions to hold the bar against lateral shifting movement on the rivet. A tortional spring 26 is placed around the spacer sleeve 25 and the ends of this spring bear respectively against the outer edge of the combination latch and brace bar 23 and the leaf 9. The spring functions to normally hold the bar 23 toward the leaf 9 and against the leaf 10, as best shown in Figure 3.

In use of the unit, the same is incorporated with the table T as heretofore stated, and when the leg 7 is in its collapsed folded position, as shown in Figure 3, the outer end of the bar 23 is received in the slot 8 of the leg and upon grasping of the leg and outward swinging movement thereof, the forward end of the bar will ride on the plate 15 of the leaf 10 and when the bar strikes the keeper tongue 22 the same will ride up on the keeper tongue. The bar has formed on its inner edge adjacent to its outer end a keeper recess or notch 27 and the keeper tongue will ride into this recess. At this time, the leg will be securely held in its operative position and the bar 23 then functions as a brace between the leg and the table top.

To collapse the leg inward against the table top it is merely necessary to swing the bar 23 outward a slight distance to disengage the keeper tongue 22 from the notch 27 and the leg can be swung inwardly. As the bar 23 presses against the leaf 10, the bar also aids in the folding of the leg.

In order to aid the bar 23 to ride up over the keeper tongue 22, the extreme lower end of the bar can be provided with an inclined nose 28.

Various changes in details may be made without departing from the spirit or the scope of our invention, but what we claim as new is:

1. An assembly for mounting collapsible legs of a table to a top comprising an upper leaf and a lower leaf, each of said leaves including a flat body plate and right angularly extending flanges on the side edges thereof, the inner ends of said flanges being extended to form pivot ears, hinge bolts connecting the ears together, means for securing the lower leaf to a table leg, and said leaf having a struck out keeper tongue, the flanges of

said upper leaf at their outer ends being extended to form pivot ears, a combination latch and brace bar received between said last mentioned ears, means pivotally connecting the bar to said last mentioned ears, spring means normally holding the bar in a raised position toward the upper leaf and against said lower leaf, the lower end of the bar having formed on its inner edge a keeper notch for receiving the keeper tongue when the lower leaf is swung downwardly at an angle away from the upper leaf.

2. An assembly for mounting collapsible legs of a table to a top comprising an upper leaf including an attaching plate of a substantially triangular shape and depending flanges formed on the side edges of the plate, the inner ends of said flanges being extended to form hinge ears, the outer ends of said flanges being extended to form pivot ears with said pivot ears arranged in spaced parallel relation, a lower hinge leaf including a flat attaching plate and outwardly extending right angular flanges on the side edges of the plate, the inner ends of the said last mentioned flanges being extended forming hinge ears, said ears being arranged in facial engagement with the first mentioned hinge ears, pivot bolts connecting the hinge ears of the upper and lower leaves

together, a struck out keeper tongue formed on the lower leaf adjacent to its outer end, a pivot carried by the pivot ears, a combined latch and brace bar rockably mounted on said pivot and spring means normally holding the bar toward the upper leaf and against the inner face of the lower leaf, said bar having a keeper notch on its inner edge adjacent to the outer end thereof for receiving the keeper tongue when the lower leaf is swung on the upper leaf at a certain angle, said bar having an inclined leading nose on its forward end for contact with said keeper tongue.

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