Jan. 25, 1938. A. L. POE 2,106,654

ADJUSTABLE CARTON CLEAT

Filed Feb. 9, 1937

Fig. 1.

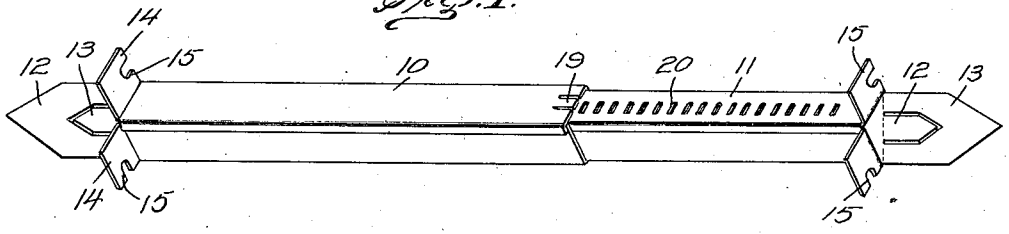


Fig. 2.

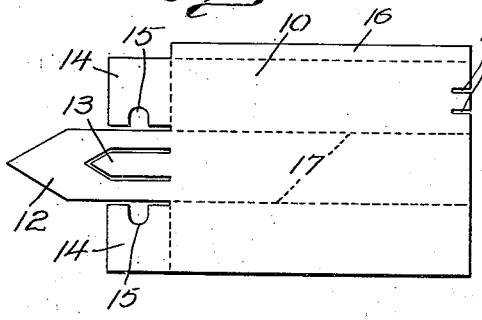


Fig. 3.

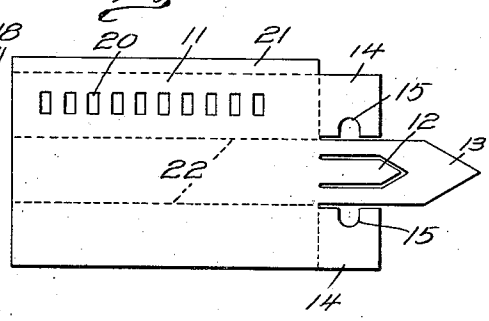


Fig. 4.

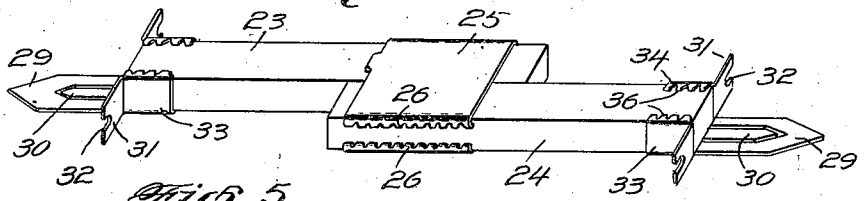


Fig. 5.

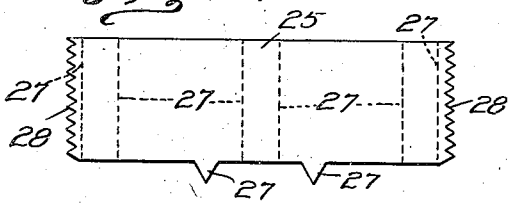


Fig. 6.

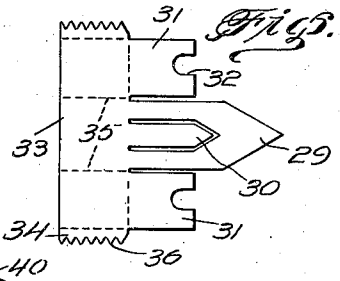


Fig. 7.

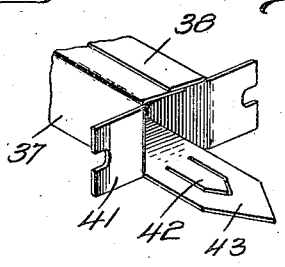
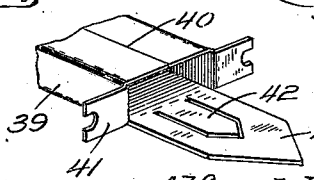


Fig. 8.



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ADJUSTABLE CARTON CLEAT

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Application February 9, 1937, Serial No. 124,902

3 Claims. (Cl. 206—1)

This invention relates to adjustable carton cleats and has for an object to provide a cleat adapted to hold articles in place in pasteboard cartons when being shipped.

A further object is to provide a device of this character adapted to be used by florists to hold cut flowers firmly in cartons when being shipped, the device being adapted to be placed upon the flowers and then the outer ends thereof punched through opposite sides of the carton and clinched both inside and outside the wall of the carton to rigidly anchor the clamp in place.

A further object of the invention is to provide a clamp of this kind which may be readily adjusted in length to fit various sizes of cartons and which will have novel wings provided with notches through which the cord which laces the flowers to the bottom of the carton may be fastened for holding the cord taut and preventing dislodgment of the flowers.

A further object is to provide a device of this character which may be easily formed from metal stamping, or may be formed partly of wood and partly of metal, and which may be formed of a few strong simple and durable parts, which will be inexpensive to manufacture and which will not easily get out of order.

With the above and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming part of this specification,

Figure 1 is a perspective view of an adjustable cleat constructed in accordance with the invention.

Figure 2 is a plan view of one of the members of the cleat in flat condition before being shaped to provide one of the members of the cleat.

Figure 3 is a plan view of the other member of the cleat in flat condition before being shaped to provide the telescoping member of the cleat.

Figure 4 is a perspective view of a modified form of adjustable cleat formed partly of wood and partly of metal.

Figure 5 is a plan view of the sleeve for adjusting the members, shown in Figure 4, in flat condition before being shaped to form the sleeve.

Figure 6 is a plan view of one of the metal end members of the clamp shown in Figure 4, in flat condition before being shaped to form the member.

Figure 7 is a detail perspective view of one of the ends of a modified form of clamp, of substantially square contour.

Figure 8 is a view similar to Figure 7 but showing the end of the clamp having substantially oblong contour.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, 10 and 11 designate two members connected together for relative endwise adjustment to vary the effective length of the cleat. The members are each provided at their outer or remote ends with barbs, each of which comprises inner parts 12 and outer parts 13. After the barbs have been punched through the sides of the carton, the inner and outer parts thereof are bent in opposite directions to clinch the clamp to the carton. Formed integrally with the barbs and on opposite sides of the barbs are wings 14 which contact with the inner surfaces of the opposite sides of the carton to prevent the cleat from punching through the sides of the carton. These wings are provided with notches 15 through which a cord, used by florists to lace flowers to the bottom of the box, may be laced back and forth to anchor the cord taut.

More specifically the member 10 may be formed from a single stamping of sheet metal of a generally oblong contour the same having a tab 16 extending longitudinally along one edge and having longitudinal scores 17 spaced equi-distant apart from each other and from the edges of the member, as shown in Figure 2, whereby the blank may be folded longitudinally into substantially triangular form, and the tab 16 then bent to hook over the clamp and maintain the clamp in said triangular shape. The two wings 14 above mentioned are formed integral with one end of the outer scored portion of the blank while the two-part barb 12—13 is formed integral with the same end of the central scored portion of the blank, as shown in Figure 2.

The blank is also provided with a pair of slits 18 in one of the outer longitudinal portions, at the end opposite the wing thereof, which provides a locking tongue 19, best shown in Figure 1, adapted to enter spaced perforations 20 in the companion member of the clamp to lock the clamp in endwise adjusted position.

The companion member of the clamp, shown in Figure 3, comprises more specifically a sheet metal blank of a general oblong contour and having a locking tab 21 on one longitudinal side

similar to the locking tab of the first described member of the clamp, the blank also being provided with longitudinal scores **22** upon which the blank may be folded, as above described, to shape the member in substantially triangular form in cross section. The wings **14** are formed at one end of each of the outer portions of the blank while the two-part barb **12—13** is formed in the end of the central portion of the blank.

The row of openings **20** above referred to are formed substantially oblong in contour.

In applying the clamp, the barbs **12—13** may be punched through the opposite sides of the carton after the clamp has been pressed down upon the flowers to hold the same snugly in place upon the bottom of the carton. The locking tab **19** may now be bent down through one of the openings **20** to maintain the extended condition of the clamp. The outer part **13**, of each barb, is now bent in one direction and the inner part **12** is now bent in the opposite direction to clinch the barbs on the outer surface of the carton. The wings **14** bear snugly upon the inner faces of the sides of the carton and prevent the clamp from punching through the sides of the carton as will be understood. The lacing cord may now be laced diagonally back and forth through the notches **15** in the wings of the clamp to hold the flowers against dislodgment in the carton, the final ends of the cord being looped back and forth through the notches to tie the cord in place and prevent the same from becoming limp.

In Figure 4 is shown a modified form of the device in which two wood bars **23** and **24** are mounted side by side and adjustably held assembled by a substantially U-shaped sleeve **25**, the ends **26** of which are bent over the same side of one of the bars as illustrated. The bars may slide longitudinally through the sleeve and for holding the bars in adjusted position a pair of barbs **27** are provided, these barbs being forced down to penetrate the wood or other material from which the bars are formed to lock the sleeve to both bars.

The sleeve is shown more specifically in Figure 5, as being formed from a substantially oblong blank having transverse scores **27** upon which the blank may be bent to shape the same to the bars. Saw tooth edges **28** are formed on the ends of the blank and these teeth may be clinched on one of the bars when the clamp is adjusted to proper length to prevent slipping of the bars from adjusted position.

As shown in Figure 4, the outer or remote ends of the bars **23** and **24** are equipped with barbs each comprising an outer part **29** and an inner part **30** adapted to be bent in opposite directions upon the outer face of the carton. The barbs have formed integral therewith wings **31** having notches **32** similar to the notched wings heretofore described. Substantially U-shaped sleeves **33** are formed integral with the barbs and the wings the ends **34** of the sleeve being bent over the same side of the bar as illustrated.

More specifically the end pieces just described are formed from substantially oblong blanks of sheet metal scored transversely as shown at **35** to provide the sleeve, the ends of the blank being provided with saw tooth edges **36** which may be forced to penetrate the wood bar to anchor the end piece stationary.

In Figures 7 and 8 are shown modified forms of sleeves, Figure 7 showing a sleeve **37** of substantially square cross section and having the ends **38** lapped. In Figure 8 the sleeve **39** is shown to be substantially oblong in cross section and the ends thereof are butted together as shown at **40**. Obviously instead of being sleeves the parts **37** and **38** may be continued longitudinally to form the members of the adjustable clamp, corresponding to the members **10** and **11** of Figure 1 in which case instead of these clamps being substantially triangular in cross section they would be substantially square in cross section or substantially oblong in cross section as shown in Figure 8. The wings **41** and two-part barbs **42—43** shown in both Figures 7 and 8 are identical with the similar parts shown in Figures 1 and 4.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

1. An adjustable carton cleat for holding articles in pasteboard cartons when being shipped, comprising members connected together for endwise adjustment and adapted to be placed upon the articles to confine the same against the bottom of the carton, two-part barbs on the outer ends of the members adapted to be punched through the sides of the carton and bent in opposite directions upon the outer faces of the sides of the carton, wings integral with the barbs and adapted to engage the inner faces of the sides of the carton to rigidly anchor the clamp in place, and means on the wings through which a lacing cord may be passed to confine said articles against dislodgment.

2. An adjustable carton cleat comprising a pair of telescoping members, means adjustably connecting the members together for endwise adjustment to vary the length of the cleat, barbs on the outer ends of the members, each barb comprising an inner part and an outer part, said parts being adapted to be bent over the outer faces of the sides of the carton in opposite directions after the barbs are punched through said sides of the carton, and laterally disposed wings integral with the barbs and on opposite sides of the barbs adapted to abut the inner faces of the sides of the carton and anchor the cleat against dislodgment.

3. An adjustable carton cleat comprising members disposed side by side, a sleeve encircling the members and permitting longitudinal adjustment of the members, means on the cleat for locking the members in adjusted positions, and metal end pieces for the members each comprising a barb adapted to be punched through the side of the carton and bent over the outer face of the side of the carton, wings on opposite sides of the barb adapted to abut the inner face of the side of the carton, and a sleeve integral with the wings and the barb and embracing the end of an associated one of said members.

ALFRED L. POE.