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Juris

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[54] **EXTENDABLE ADJUSTABLE MAILBOX SUPPORT MEANS**

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[51] **Int. Cl.** **F16m 13/00**

[58] **Field of Search** 248/122, 123, 124, 125, 248/280, 281, 284

[56] **References Cited**

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Attorney, Agent, or Firm—Mason, Fenwick & Lawrence

[57] **ABSTRACT**

A mailbox support is disclosed including a base bracket engageable with a vertical post support means, a pivot pin on the base bracket extending through apertures in the inner ends of first and second base arms, a coil spring surrounds the base pivot pin to increase frictional resistance to pivotal movement of the base arms with respect to the base bracket with outer arms being pivotally connected by an arm pivot pin to the outer ends of the base arms; a mailbox supporting bracket is pivotally connected to the outer ends of the outer arms with coil springs increasing the frictional resistance to pivotal movement of the components so that a mailbox mounted on the mailbox supporting bracket can be positioned outwardly at a desired point and can also be positioned at a desired vertical height at any desired outward point from the supporting post and will remain in position unless additional force is applied to the mailbox.

8 Claims, 5 Drawing Figures

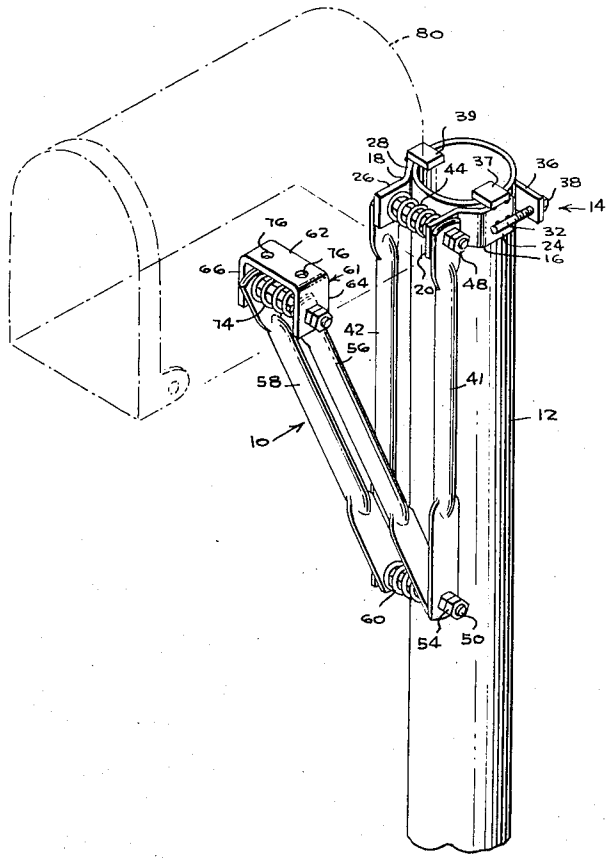


Fig-1

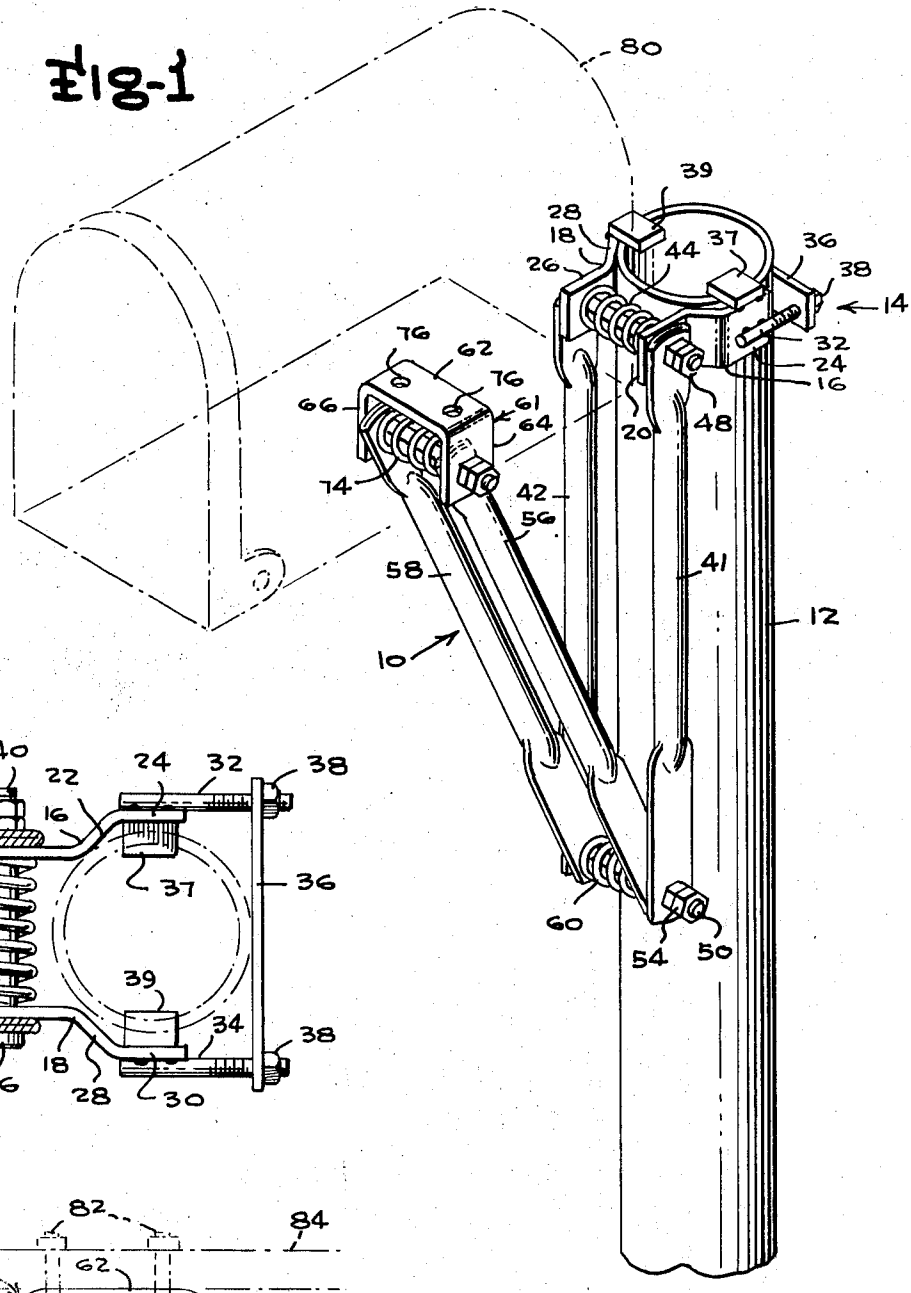


Fig-4

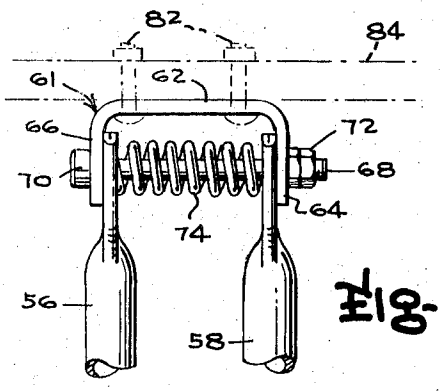


Fig-5

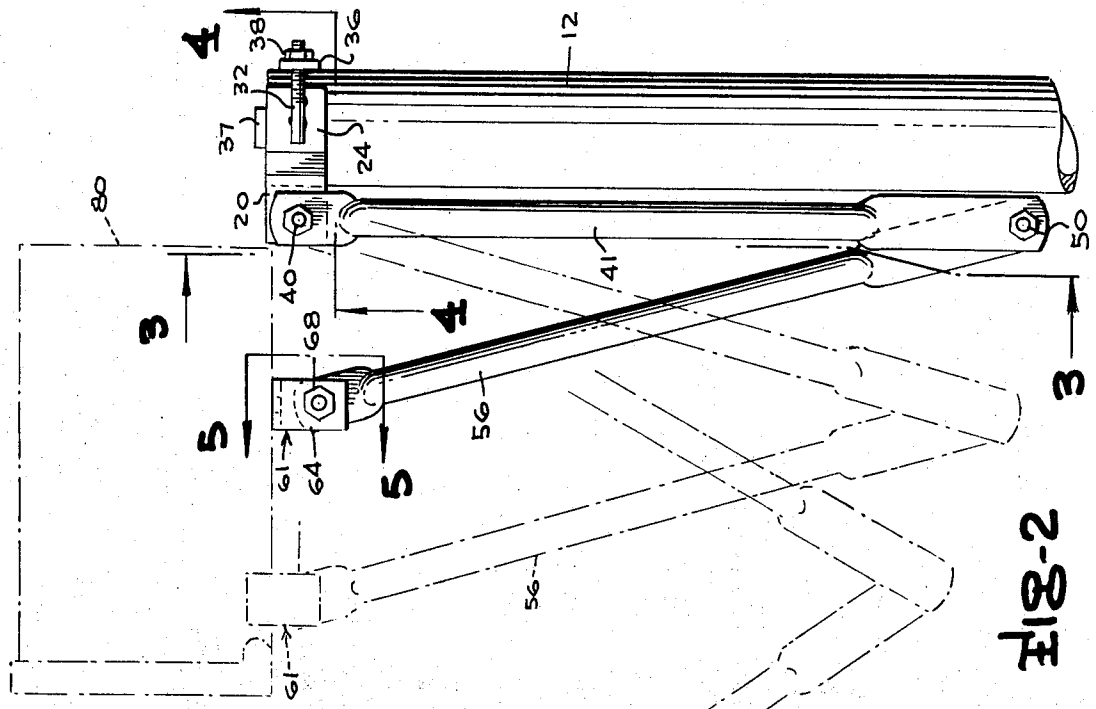

4
38
36
12
32
37
24
20
80
40
41
50
3
4
68
3
5
5
56
61
64
61
56

FIG-2

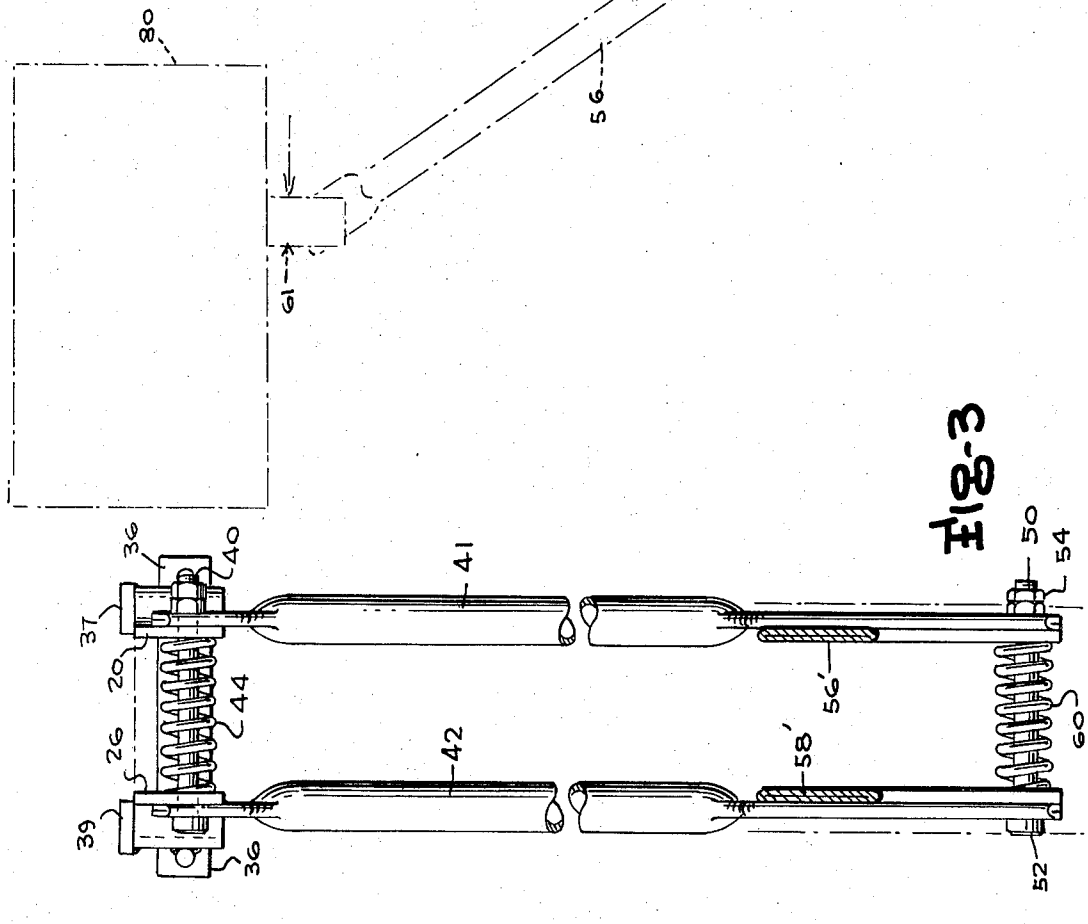

80
56
61
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36
40
41
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20
44
56'
60
26
42
58'
39
36
52

FIG-3

EXTENDABLE ADJUSTABLE MAILBOX SUPPORT MEANS

This application is in the field of mailboxes and is particularly directed to mounting means for mailboxes of the type frequently used on rural delivery routes.

Even more specifically, the subject invention is directed to means for mounting a mailbox on a vertical post or the like in a manner to permit adjustable vertical and horizontal positioning of the mailbox away from the post supporting the mailbox.

Rural mailboxes are normally positioned on supporting posts adjacent the side of the road along which the mail carrier travels in order that the mail carrier can have access to the mailbox while remaining in his vehicle. Unfortunately, adverse road conditions arising from the fact that many rural roads are not paved and that the sides of the roads are frequently in such a condition due to mudholes, snowdrifts or hazards created by road clearing equipment so as to prevent the carrier's vehicle from approaching closely enough to the mailbox to permit access to the box from the vehicle. Consequently, the delivery of the mail is slowed down and impeded by the necessity that the carrier stop his vehicle and exits from the vehicle in order to place mail in the mailbox or to remove mail from the mailbox. Consequently, there has been a long standing need for means for enabling the positioning of a mailbox outwardly from the supporting posts toward the center of the road in order to permit access to the mailbox from the carrier's vehicle.

Recognition of the foregoing need has resulted in a number of prior devices for enabling movement of the mailbox toward the center of the road in an effort to alleviate the problem. However, prior known devices brought forward in response to the problem have suffered from a number of deficiencies which have not been corrected. For example, while many of the mailbox mounting devices such as those disclosed in U.S. Pat. No. 1,731,682 and 839,607 have permitted outward movement of the mailbox, such movement is limited solely to horizontal movement with their being no provision for vertical adjustment of the box in accordance with different heights of the vehicle in which the carrier is riding. Since different carriers may traverse the same route in different vehicles of different heights, a mailbox support of the type illustrated in U.S. Pat. No. 839,607, while at a satisfactory height for the carrier in a buggy, would be far too high for a carrier driving a small automobile.

Other mailbox supporting apparatus has been vertically adjustable such as in U.S. Pat. Nos. 586,881 and 910,613 in which the height of the mailbox can be adjusted at the post to which the mailbox supporting attachment is connected. Unfortunately, the fact that the mailbox supporting system is adjustable at the post is of no benefit to a carrier encountering a mailbox at an improper height since he would obviously have to get out of the vehicle in order to adjust the box height.

Still other mailbox support devices have enabled a vertical positioning of the mailbox height by virtue of pivotal movement along an arcuate path. However, devices of the foregoing type cannot move the mailbox in a vertical direction in a vertical plane a desired distance away from the supporting post member and are consequently of limited versatility.

Therefore, it is the primary object of this invention to provide a new and improved attachment means for attaching a mailbox or the like to a supporting member.

Another object of the invention is the provision of new and improved mailbox attachment means for enabling the attachment of a mailbox to a supporting member which enables both vertical and horizontal adjustment of the mailbox in any desired position.

Achievement of the objects of this invention is enabled by the preferred embodiment of the invention through the provision of a base bracket comprising first and second side plates adjustably connected by threaded assemblies to fit a range of different sized supporting poles with each of the base bracket members including an apertured lug through which a pivot bolt is mounted. The apertured legs are biassed apart and the ends of a pair of base arm means are mounted on a base pivot bolt for pivotal movement with respect to the base pivot means. A compression spring is positioned between the pivot support lugs for urging the lugs outwardly against the ends of the base pivot arms to consequently vary the frictional resistance to pivotal movement of the base pivot arms with respect to the base bracket.

The outer ends of the base pivot arms are apertured and an arm pivot bolt extends through the aperture for providing pivotal support for the inner end of a pair of parallel outer arm members. The arm pivot bolt is surrounded by a compression spring positioned between the outer ends of the base pivot arms which compression spring biasses the arms outwardly with their outward extent of movement being limited by threaded nut members on the ends of the arm pivot bolt. Adjustment of the threaded nuts on the end of the arm pivot bolt results in adequate frictional engagement between the inner ends of the outer arm members and the outer ends of the base arm members to hold the posts in position.

A mailbox attachment bracket is pivotally connected to an attachment bracket pin extending through apertures in the outer ends of the outer pivot arms with a bracket pivot bolt extending through the apertures in the outer ends of the arms and through apertures in the legs of the U-shaped bracket member. A compression spring is provided on the attachment bracket pin for increasing friction between the attachment bracket and the outer arms to retain these parts in adjusted position.

A better understanding of the manner in which the preferred embodiment accomplishes the foregoing objects will be achieved when the following written description is considered in conjunction with the appended drawings in which:

FIG. **1** is a perspective view of the preferred embodiment;

FIG. **2** is a side elevation view of the preferred embodiment;

FIG. **3** is a sectional view taken along lines **3—3** of FIG. **2**;

FIG. **4** is a sectional view taken along lines **4—4** of FIG. **2**; and

FIG. **5** is a sectional view taken along lines **5—5** of FIG. **2.**

Attention is initially invited to FIG. **1** of the drawings which illustrates the preferred embodiment, generally designated **10,** illustrated in position on a vertical supporting pipe or post member **12.**

A base bracket, generally designated **14**, is connected to the top of the post member **12** and is formed of first and second side plates **16** and **18** best illustrated in FIG. **4**. First side plate **16** includes a forwardly extending support lug **20**, a canted portion **22** and a rear side tab portion **24**.

Similarly, the second side plate **18** includes a forwardly extending support lug **26**, a canted mid-portion **28** and a rear side tab portion **30**. It is to be noted that the first side plate **16** is in mirror relationship to the second side plate **18**. A rearwardly extending threaded rod **32** is welded to the outer surface of the rear side tab portion **24** of the first side plate **16** and an identical rearwardly extending threaded rod **34** is welded to the outer surface of the rear side tab portion **30** of the second side plate **18**. A clamp bar **36** connects the rods **32** and **34** by virtue of the fact that apertures in the end of the clamp bar **36** are respectively fitted over the rearwardly extending threaded rods **32** and **34** to be held in position by internally threaded nut members **38**. Inwardly extending support tabs **37** and **39** are welded to the tops of tab portions **24** and **30** respectively for engaging the top of pipe or post **12** to provide support for the bracket **14**.

Base pivot means comprising a base pivot bolt **40** extending through apertures in the forwardly extending support lugs **20** and **26** provide pivotal support for a first base arm **41** and a second base arm **42** each formed of aluminum tubing having flattened outer ends and tubular mid-portions. A compression spring **44** is positioned between the forwardly extending support lugs **20** and **26** with the outward movement of the lugs being limited by a flange **46** on one end of the pivot bolt **40** and internally threaded nut members **48** on the other end of the pivot bolt **40** to provide a degree of adjustment of the frictional resistance to pivotal movement of arms **41** and **42** with respect to the axis of base pivot bolt **40**.

An arm pivot bolt **50** having a head flange **52** on one end and internally threaded nuts **54** on the other end is mounted in supporting apertures in the flattened outer ends of the base arms **41** and **42** and provides pivotal support for the flattened inner ends of a first outer arm **56** and a second outer arm **58** that are also formed of aluminum. A compression spring **60** is compressed between the inner surfaces of the arms **56** and **58** to increase the frictional resistance to pivotal movement of the arms **56** and **58** with respect to the arms **41** and **42** about pivot bolt **50**. It should be noted that rotation of threaded nut members **54** will adjust the degree of frictional resistance to the pivotal movement of arms **56** and **58** about the axis of arm pivot bolt **50**.

A mailbox supporting connecting bracket **61** comprising a U-shaped member in the form of a foot or base plate **62** from the ends of which side legs **64** and **66** extend includes apertures in the lower ends of the side legs **64** and **66** fitting over a connecting bracket pivot bolt **68** mounted in the flattened outer ends of the outer arms **56** and **58**. Bolt **68** has a head flange **70** on one end and is provided with internally threaded nut members **72** on its other end with a compression spring **74** being positioned between the ends of the outer arms **56** and **58** for increasing resistance to pivotal movement of the bracket **60** and arms **56, 58** with respect to the pivot bolt **68**. Apertures **76** in the base plate **62** enable the connection of a mailbox **80**, illustrated in dashed lines, by means of nut and bolt assemblies **82** illustrated in FIG. **5** which extend through the floor **84** of the mailbox.

In operation, the preferred embodiment is positioned on a supporting post or pole member **12** with the inwardly extending tabs **37** and **39** resting on the top of the post. Nuts **38** are tightened to clamp the base bracket **14** to the post by means of the clamp bar **36** etc. and the nut members **48,54** and **72** are adjusted for maintaining adequate friction against movement of the supporting arms to hold the mailbox in an adjusted position while permitting a relative easy adjustment to another position if desired. It should be noted that the mailbox can be adjusted in a wide variety of vertical and horizontal positions dependent upon the position of the arms **41, 42** with respect to the arms **56, 58**. Additionally, it should be noted that the employment of the inwardly extending tabs **37, 39** could be eliminated if the post **12** should be of substantial height and the clamping operation of the plate **36**, etc., could be relied upon for maintaining the bracket **14** in vertical position on the post.

Therefore, it will be appreciated that the subject invention provides a uniquely versatile, reliable and rugged supporting device for a mailbox and which represents a distinct improvement over the prior known mailbox supporting devices. While numerous modifications of the preferred embodiment will undoubtedly occur to those of skill in the art, it should be understood that the spirit and scope of the invention is to be limited solely in light of the appended claims.

What is claimed is:

1. Attachment means for enabling the adjustable attachment of a mailbox or the like to a vertical support post, said attachment means comprising base bracket means connectable with said post, base pivot means mounted on said base bracket means, elongated base arm means comprising first and second parallel tubular arm members having flattened end surfaces pivotally connected on an inner end to said base bracket means by said base pivot means for pivotal movement with respect to said base bracket, arm pivot means mounted on an outer end portion of said base arm means spaced from the pivotal connection of said base arm means to said base pivot means, outer arm means pivotally connected on one end to said arm pivot means, a connecting bracket including means enabling connection to a mailbox or the like, a connecting bracket pivot means on the end of said outer arm means spaced from the pivotal connection of said outer arm means to said arm pivot means, said connecting bracket being pivotally connected to said connecting bracket pivot means and friction increasing means associated with the pivotal connection between said base arm means and said base bracket means and the pivotal connection between the outer end of said base arm means and the end of the outer arm means pivotally connected thereto and the outer end of the outer arms and the connecting bracket whereby the frictional resistance to pivotal movement of the pivotally connected members will be sufficient to maintain said mailbox in a fixed position of adjustment absent the application of additional force to the mailbox or the attachment means.

2. The invention of claim **1** wherein said outer arm means comprises first and second parallel tubular arm members having flattened end surfaces.

3. The invention of claim **2** wherein said base bracket means includes first and second side plates each dimen-

sioned and shaped to partially engage said post means and each having a forwardly extending support lug with said support lugs extending generally parallel to each other.

4. The invention of claim **3** wherein said base pivot means comprises a base pivot bolt means extending through apertures in the flattened end surfaces of said base lugs and through apertures in said support lugs.

5. The invention of claim **4** wherein said arm pivot means comprises an arm bolt extending through apertures in the outer ends of said base arm means and the inner end of said outer arm means.

6. The invention of claim **5** wherein said connecting bracket means comprises a U-shaped bracket plate including a foot plate and said means enabling connection of said bracket to said mailbox or the like comprises openings in said foot plate, said U-shaped bracket plate additionally including first and second parallel leg plates extending from each end of said foot plate and each provided with an aperture, said bracket pivot means comprising bracket bolt means extending through apertures in the outer ends of said outer arm means and said apertures in said leg plates.

7. The invention of claim **3** wherein said first and second side plates each includes rearwardly extending threaded rod means, a clamp bar having apertures fitted over said threaded rod members and internally threaded means threadably received on said threaded rod means outwardly of said clamp bar for moving said clamp bar inwardly to clamp a vertical post on which the base bracket is mounted.

8. The invention of claim **7** additionally including inwardly extending tab members extending inwardly from the upper edge of each of said side plates over the top of the vertical posts with which the base bracket is associated.

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