Nov. 22, 1966 R. F. McMAHAN, JR., ETAL 3,286,964

PEDESTAL BASE

Filed Oct. 14, 1965 2 Sheets-Sheet 1

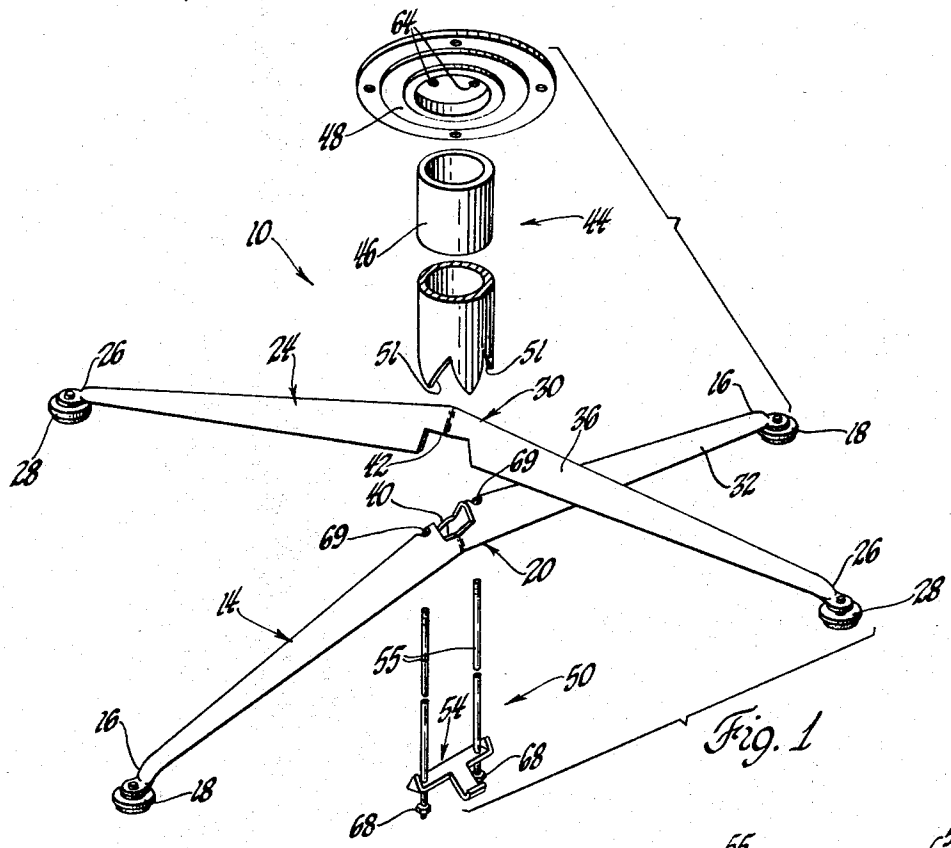


Fig. 1

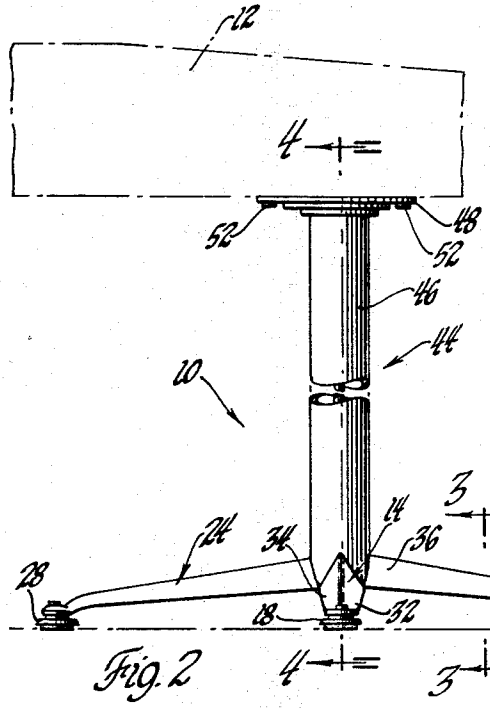


Fig. 2

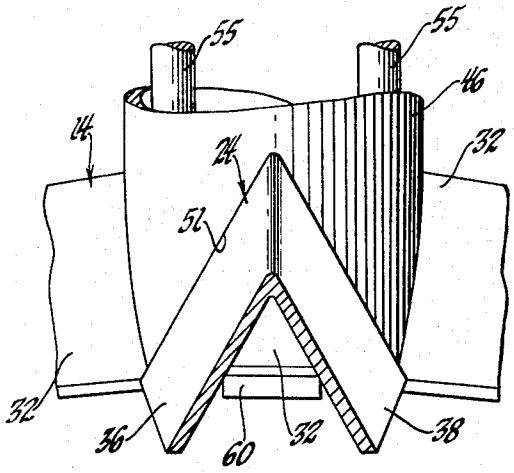


Fig. 3

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PEDESTAL BASE

Filed Oct. 14, 1965 2 Sheets-Sheet 2

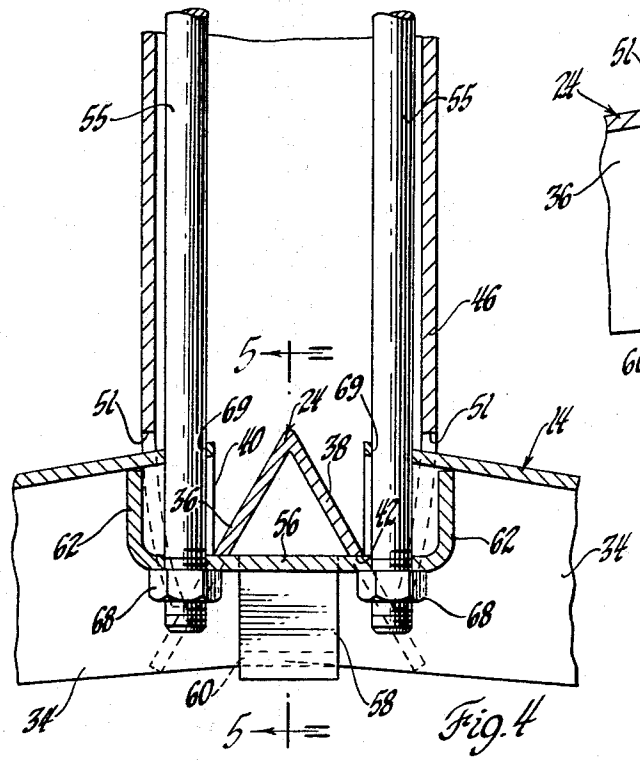


Fig. 4

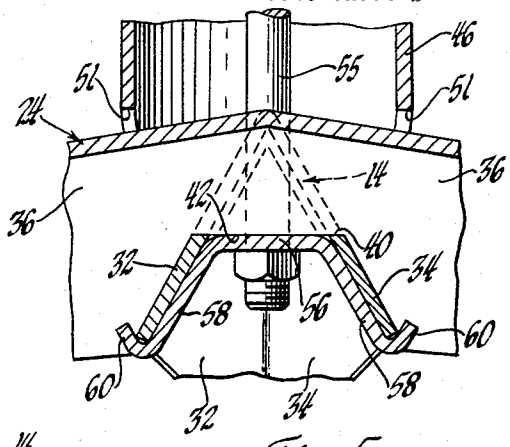


Fig. 5

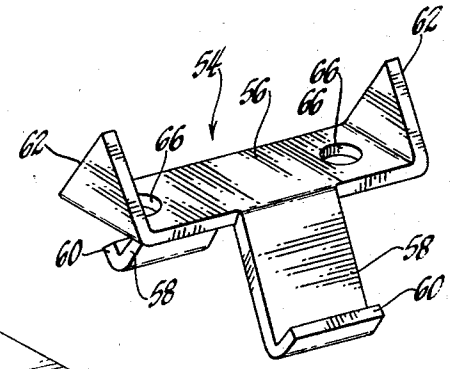


Fig. 6

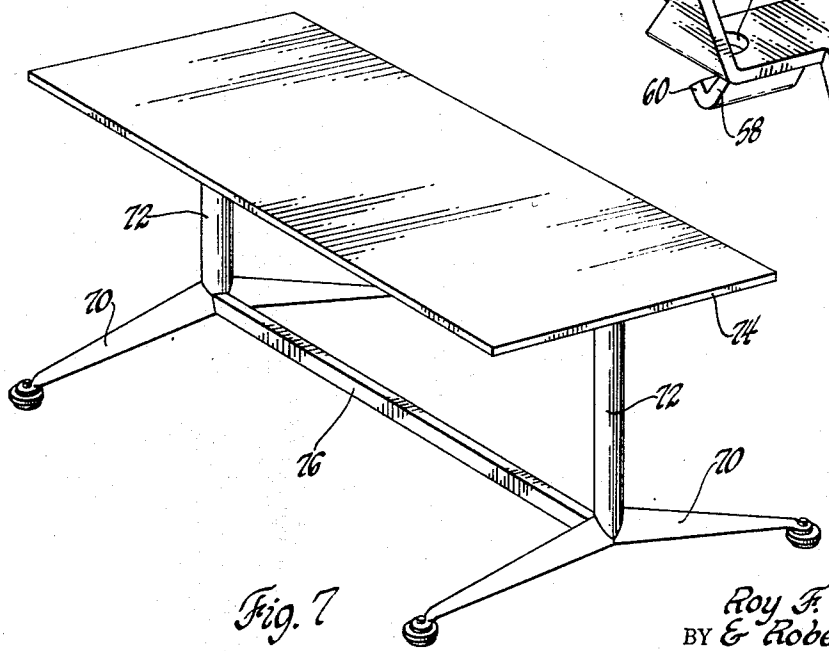


Fig. 7

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PEDESTAL BASE

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21 Claims. (Cl. 248—188.7)

This invention relates to a pedestal base of the type suitable for supporting furniture and the like and, more specifically, to a pedestal base including at least one leg member having a mid-portion and first and second ends with a bow shape between the ends, support means disposed on the leg member and adapted to be connected to a piece of furniture, and clamp means operatively connected to the support means and engaging the leg member for preventing the straightening of the bow shape of the leg member as forces are applied thereto through the support means.

Pedestal bases of the instant type are utilized for supporting chairs, desks, benches, tables and other types of furniture. Such pedestals normally utilize at least one leg member which is disposed substantially transversely of a support member which interconnects the leg member and the piece of furniture to be supported. The leg member contacts, or is adapted to contact, the floor or other support structure at the ends thereof and is attached to the support structure at the mid-portion thereof. The leg member normally has a bow shape upwardly toward the mid-portion thereof from the respective ends thereof. The bow shape of the leg member allows the leg member to contact the floor only at the respective ends thereof and provides an attractive leg member. Such leg members are frequently made of bar stock which is of a dimension sufficient to provide the necessary strength for supporting the pieces of furniture with which the pedestal base is to be utilized.

The utilization of such bar stock in fabricating the leg members offers little versatility in the design of the pedestal and is expensive. Versatility in the design of leg members made of bar stock is limited due to the fact that the shapes of the leg members cannot be widely varied because of the limitations in shaping solid pieces of bar stock. The utililization of bar stock to fabricate such leg members is expensive because the bar stock is solid and includes a large amount of metal in each individual leg member. In order to reduce the amount of metal required in a leg member and to provide leg members of various attractive designs, metal plates may be formed into various configurations to form leg members having various cross sections to provide an attractive appearance. Leg members thus formed of a minimum of metal material, however, do not always have the requisite strength characteristics required of leg members utilized in pedestals of the instant type, although such leg members thus formed may be of various attractive designs. That is to say, leg members made of a minimum of metal material frequently have insufficient strength characteristics due to the fact that in some environments sufficient loads are applied to the leg member to straighten or remove the bow shape from the leg member, thus causing the leg member to lose its attractive configuration and preventing the leg member from resting evenly on the floor.

Accordingly, it is an object and feature of the instant invention to provide a pedestal utlizing one or more leg members comprising a minimum amount of material and an attractive configuration to support a piece of furniture through support means disposed on the leg members and including clamp means interconnecting the support means and the leg members for preventing the straightening of the

bow shape from the leg members as forces are applied thereto through the support means.

Another object and feature of the instant invention is to provide a pedestal base having at least one bow-shaped leg member with support means disposed on the leg member and adapted to be connected to a piece of furniture with the leg member having a cross section which includes interconnecting diverging sides at least at the mid-portion thereof and clamp means interconnecting the support means and the diverging sides of the leg member to apply forces to the sides of the leg member for preventing the sides from moving together to prevent the removal of the bow shape from the leg member as forces are applied thereto through the support means.

In general, these and other objects may be attained in a pedestal base including at least one leg member having a bow shape between the ends thereof and having a cross section which, at least at the mid-portion thereof, is V-shaped and increases in size from each respective end toward the mid-portion of the leg member. A hollow tubular member having a pair of V-shaped notches engages the leg member so that the leg member is disposed in the V-shaped notches at one end of the hollow tubular member. A support plate is disposed across the other end of the hollow tubular member and is adapted to be attached to a piece of furniture to be supported by the leg member. Force applying means engages the respective sides of the leg member to apply forces thereto to prevent the sides from moving together for preventing the removal of the bow shape from the leg member as the forces are applied thereto through the hollow tubular member. A pair of tie rods are disposed within the hollow tubular member with each tie rod threadedly secured at a first end thereof to the support plate and with a second end thereof extending through the force applying means. A fastening means is disposed on the second ends of the tie rods for placing the tie rods in tension to clamp the hollow tubular member and the leg member between the support plate and the force applying means.

Other objects and attendant advantages of this invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings wherein:

FIGURE 1 is an exploded perspective view of a preferred embodiment of the instant invention;

FIGURE 2 is a side elevational view of the preferred embodiment of the invention illustrated in FIGURE 1;

FIGURE 3 is an enlarged fragmentary cross-sectional view taken substantially along line **3—3** of FIGURE 2;

FIGURE 4 is an enlarged fragmentary cross-sectional view taken substantially along line **4—4** of FIGURE 2;

FIGURE 5 is a fragmentary cross-sectional view taken substantially along line **5—5** of FIGURE 4;

FIGURE 6 is an enlarged perspective view of the force applying means utilized in the preferred embodiment of the instant invention; and

FIGURE 7 is a perspective view of a table utilizing a pedestal base constructed in accordance with the instant invention.

Referring now to the drawings, wherein like numerals indicate like or corresponding parts throughout the several views, there is generally shown at **10** a pedestal base which is suitable for supporting furniture, such as the table illustrated in FIGURE 7 or the piece of furniture **12** indicated in phantom in FIGURE 2.

A first leg member, generally shown at **14**, has first and second ends **16** with a bow shape between the ends **16**. The ends **16** of the leg member **14** are adapted to contact a support structure such as a floor, preferably through the members **18—18**. The leg member **14** includes a mid-portion, generally shown at **20**, which is

disposed above the floor when the ends **16** thereof are disposed upon the floor due to the bow shape of the leg member **14**. A second leg member, generally shown at **24**, is also included and like leg member **14** has respective ends **26**, which are adapted by the members **28—28** to engage a support structure such as a floor, and has a mid-portion, generally shown at **30**. The leg member **24** also has a bow shape between the ends **26** thereof. Each of the leg members **14** and **24** has a cross section, at least at the mid-portions **20** and **30** thereof, which includes interconnected diverging sides **32** and **34**, and **36** and **38**, respectively. Preferably, the cross section of each of the respective leg members **14** and **24** forms a V shape which increases in size from each of the respective first and second ends to the respective mid-portions thereof. The leg members **14** and **24** include respective complementary notches **40** and **42** whereby the first leg member **14** is disposed in crossed relationship with the second leg member **24** so that each of the leg members **14** and **24** is disposed in the notch of the other leg member. That is to say, the first leg member **14** is disposed in the notch **42** of the second leg member **24** and the second leg member **24** is disposed in the notch **40** of the first leg member **14**.

A support means, generally shown at **44**, is adapted to be connected to a piece of furniture to be supported by the leg members **14** and **24** and is disposed on the leg members **14** and **24** so that the second leg member **24** is interlocked between the first leg member **14** and the support means **44**. The support means **44** includes a hollow tubular member **46**, a support plate **48**, and clamp means, generally shown at **50**. The hollow tubular member **46** has two pairs of V-shaped notches **51** in a first end thereof so that each of the leg members **14** and **24** is disposed in one pair of the notches **51**. The support plate **48** is disposed across the other end of the hollow tubular member **46** and is adapted by its configuration and the screws **52** to be attached to the piece of furniture to be supported by the leg members **14** and **24**. The clamp means **50** is operatively connected to the support plate **48** of the support means **44** and engages the leg members **14** and **24** for preventing the straightening of the bow shape of the leg members **14** and **24** as forces are applied thereto through the hollow tubular member **46** of the support means **44**.

The clamp means **50** includes wedge means, generally indicated at **54**, and tension means comprising the tie rods **55**. The wedge means **54** is best illustrated in FIGURE 6 and includes a first force applying means **56** which engages the sides **36** and **38** of the leg member **24** in the notch **42** thereof, as best seen in FIGURE 4. The first force applying means **56** applies forces to the sides **36** and **38** in the notch **42** for preventing the sides **36** and **38** from moving together to prevent the removal of the bow shape of the leg member **24** as forces are applied thereto through the hollow tubular member **46** of the support means **44**. That is to say, the first force applying means **56** engages the lower extremity of the sides **36** and **38** in the notch **42**, as illustrated in FIGURE 4, to apply an upward force on the sides **36** and **38** to prevent the sides **36** and **38** from moving together. The distance between the diverging sides **36** and **38** is greater at the mid-portion **30** of the leg member **24** than at the respective ends **26** thereof so that when forces are applied to the leg member **24** tending to straighten or remove the bow shape therefrom, the sides **36** and **38** tend to move together at the mid-portion **30** thereof as the leg member **24** is straightened; however, by applying sufficient upward forces to the sides **36** and **38** in the notch **42** thereof, the bow shape will remain unimpaired since the sides **36** and **38** will be prevented from moving together.

The wedge means **54** also includes a second force applying means comprising a pair of wings **58** with flanges **60** thereon for engaging the respective extremities of the

sides **32** and **34** of the leg member **14** to apply forces thereto for preventing the sides **32** and **34** from moving together to prevent the removal of the bow shape of the leg member **14** as forces are applied thereto through the hollow tubular member **46**. That is to say, the respective flanges **60** engage the lower extremities of the sides **32** and **34** of the leg member **14** to apply upward forces thereto, as viewed in FIGURE 5, so that the sides **32** and **34** are prevented from moving together to retain the bow shape in the leg member **14** in the event excessive forces are applied thereto through the tubular member **46**. As in the case of the leg member **24**, the leg member **14** has sides **32** and **34** which have extremities which are farther apart at the mid-portion **20** than at the ends **16** thereof so that in the event forces are applied to the leg member **14** tending to remove the bow shape therefrom, the extremities of the sides **32** and **34** at the mid-portion **20** are urged toward one another. By applying sufficient forces with the wings **58** and flanges **60** to the extremities of the sides **32** and **34**, therefore, the bow shape of the leg member is retained unimpaired.

The wedge means **54** also includes positioning means comprising the triangular-shaped members **62** disposed at each end of the first force applying means **56** to engage the leg member **14** for preventing bending movement of the ends of the first force applying means **56** as forces are applied thereto. That is to say, the triangular-shaped members **62** engage the sides **32** and **34** of the leg member **14** for preventing the ends of the first force applying means **56** from bending upward, as viewed in FIGURE 4, about the lower extremities of the sides **36** and **38** in the notch **42** of the leg member **24**. In engaging the sides **32** and **34**, the triangular-shaped members **62** may contact the surfaces of the respective sides **32** and **34**, or the apex of the triangular-shaped members **62** may contact the inward apex or joint between the sides **32** and **34**.

The tension means comprising the tie rods **55** interconnects the first force applying means **56** and the support plate **48** for urging the first force applying means **56** and the second force applying means, comprising the wings **58** and flanges **60**, against the respective leg members **14** and **24**. The tie rods **55** are disposed within the hollow tubular member **46** so that each tie rod is threadedly secured at a first end thereof to the support plate **48** in the threaded bores **64** and so that the second end of each tie rod **55** extends through a hole **69** in the first leg member **14** and a hole **66** in the first force applying means **56** so that the fastening means comprising the nuts **68** may be disposed on the second ends of the tie rods for placing the tie rods **55** in tension to clamp the hollow tubular member **46** and the leg members **14** and **24** between the support plate **48** and the wedge means **54**.

Although the invention has been illustrated in FIGURES 1 through 6 as utilizing crossed leg members **14** and **24**, respectively, the invention may also be utilized with a single leg member, such as the leg members **70** illustrated in FIGURE 7, which supports a hollow tubular member **72** upon which a table top **74**, or another piece of furniture, is supported. The assembly illustrated in FIGURE 7 differs from that illustrated in FIGURES 1 through 6 only in that the leg members **70** are not crossed and only one leg member **70** is associated with each respective hollow tubular member **72**. Preferably, a cross-bar or brace **76** interconnects the leg members **70**.

It is also to be understood that the wedge means **54** may be of many configurations and may be comprised of separate parts rather than being an integral member as illustrated.

The invention has been described in an illustrative manner and it is to be understood that the terminology which has been used is intended to be in the nature of words of description rather than of limitation.

Obviously, many modifications and variations of the present invention are possible in light of the above

teachings. It is, therefore, to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A pedestal base of the type suitable for supporting furniture and the like comprising: a leg member having a mid-portion and first and second ends with a bow shape between said ends thereof; support means disposed on said leg member and adapted to be connected to a piece of furniture to be supported by said leg member; and clamp means operatively connected to said support means and engaging said leg member for preventing the straightening of said bow shape of said leg member as forces are applied thereto through said support means.

2. A pedestal base of the type set forth in claim 1 wherein said leg member has a cross section, at least at the mid-portion thereof, which includes interconnected diverging sides, and said clamp means includes force applying means engaging said sides of said leg member to apply forces thereto for preventing said sides from moving together to prevent the removal of said bow shape from said leg member as forces are applied thereto through said support means.

3. A pedestal of the type set forth in claim 2 wherein said support means includes a hollow member having a pair of notches in a first end thereof with said leg member disposed in said notches, and a support plate disposed across the second end of said hollow member, said plate being adapted to be attached to a piece of furniture to be suppored by said leg member.

4. A pedestal of the type set forth in claim 3 wherein said clamp means includes tension means operatively interconnecting said force applying means and said support plate for urging said force applying means against said leg member.

5. A pedestal of the type set forth in claim 4 wherein said tension means includes a pair of tie rods disposed within said hollow member with each tie rod threadedly secured at a first end thereof to said support plate and extending through said force applying means at the second end thereof, and fastening means disposed on the respective second ends of said tie rods for placing said tie rods in tension to clamp said hollow member and said leg member between said support plate and said force applying means.

6. A pedestal base of the type set forth in claim 5 wherein said diverging sides of said leg members form a V shape.

7. A pedestal of the type set forth in claim 6 wherein said V-shaped cross section of said leg member increases in size from the respective ends of said leg member to said mid-portion thereof.

8. A pedestal base of the type suitable for supporting furniture and the like comprising: a first leg member having a mid-portion and first and second ends with a bow shape between said ends thereof; a second leg member having a mid-portion and first and second ends with a bow shape between said ends thereof; support means adapted to be connected to a piece of furniture and disposed on said leg members so that said second leg member is interlocked between said first leg member and said support means; and clamp means operatively connected to said support means for preventing the removal of said bow shapes and the consequent straightening of said leg members as forces are applied thereto through said support means.

9. A pedestal base of the type set forth in claim 8 wherein each of said leg members has a cross section, at least at said mid-portion thereof, which includes interconnected diverging sides, and said first and second leg members having respective complementary notches with said first leg member disposed in crossed relationship with said second leg member so that each of said leg members is disposed in the notch of the other leg member.

10. A pedestal base of the type set forth in claim 9 wherein said clamp means includes force applying means engaging said sides of said first leg member to apply forces thereto for preventing said sides of said first leg member from moving together to prevent the removal of said bow shape from said first leg member as forces are applied thereto through said support means.

11. A pedestal base of the type set forth in claim 9 wherein said clamp means includes an elongated first force applying means engaging said sides of said second leg member in the notch thereof to apply forces thereto for preventing said sides of said second leg member from moving together to prevent the removal of said bow shape of said second leg member as forces are applied thereto through said support means.

12. A pedestal base of the type set forth in claim 11 including second force applying means engaging the respective extremities of said sides of said first leg member to apply forces thereto for preventing said sides of said first leg member from moving together to prevent the removal of said bow shape of said first leg member as forces are applied thereto through said support means.

13. A pedestal base of the type set forth in claim 12 wherein said first force applying means is an elongated member and said second force applying means includes a pair of wings extending from said elongated member with flanges on said wings for engaging the respective extremities of said sides of said first leg member.

14. A pedestal base of the type set forth in claim 13 including positioning means at each end of said elongated member for engaging said first leg member for preventing bending movement of said ends of said elongated member about said sides of said second leg member.

15. A pedestal base of the type set forth in claim 14 wherein said diverging sides of said first and second leg members form a V-shaped cross section in each of said leg members which increases in size from the respective ends of said leg members to the respective mid-portions thereof.

16. A base pedestal of the type set forth in claim 15 wherein said positioning means includes a triangular-shaped member disposed at each end of said elongated member for engaging said sides of said first leg member.

17. A base pedestal of the type set forth in claim 16 wherein said support means includes a hollow member having two pairs of V-shaped notches in a first end thereof with each of said leg members disposed in one of said two pair of notches, and a support plate disposed across the second end of said hollow member, said support plate being adapted to be attached to a piece of furniture to be supported by said leg members.

18. A pedestal base of the type set forth in claim 17 wherein said clamp means includes tension means operatively interconnecting said force applying means and said support plate for urging said force applying means toward said support plate.

19. A pedestal base of the type set forth in claim 18 wherein said tension means includes a pair of tie rods disposed within said hollow member with each tie rod threadedly secured at a first end thereof to said support plate and with each tie rod extending through said first force applying means at the second end thereof, and fastening means disposed on the respective second ends of said tie rods for placing said tie rods in tension to clamp said hollow member and said leg members between said support plate and said force applying means.

20. A pedestal base of the type for supporting furniture and the like comprising: a first leg member having a mid-portion and first and second ends with a bow shape between said ends, support means adapted to be connected to a piece of furniture and disposed on said leg member, said leg member having a cross section, at least at the mid-portion thereof, which includes interconnected

diverging sides, means for preventing movement of said sides together to prevent the removal of said bow shape as forces are applied thereto whereby the strength of said leg member is increased.

21. A pedestal base as set forth in claim **20** including a second leg member having a mid-portion and first and second ends with a bow shape between said ends thereof; said second leg member being interlocked between said first leg member and said support means, said second leg member also having a cross section at least at the mid-portion thereof, which includes interconnected diverging sides, said means for preventing movement interconnects said sides of said first and second leg members for preventing the sides of each respective leg member from moving together as forces are applied thereto whereby the strength of said leg members is increased.

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