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(54) **PARTITION MOUNTING DEVICE AND METHOD OF MANUFACTURING THE SAME**

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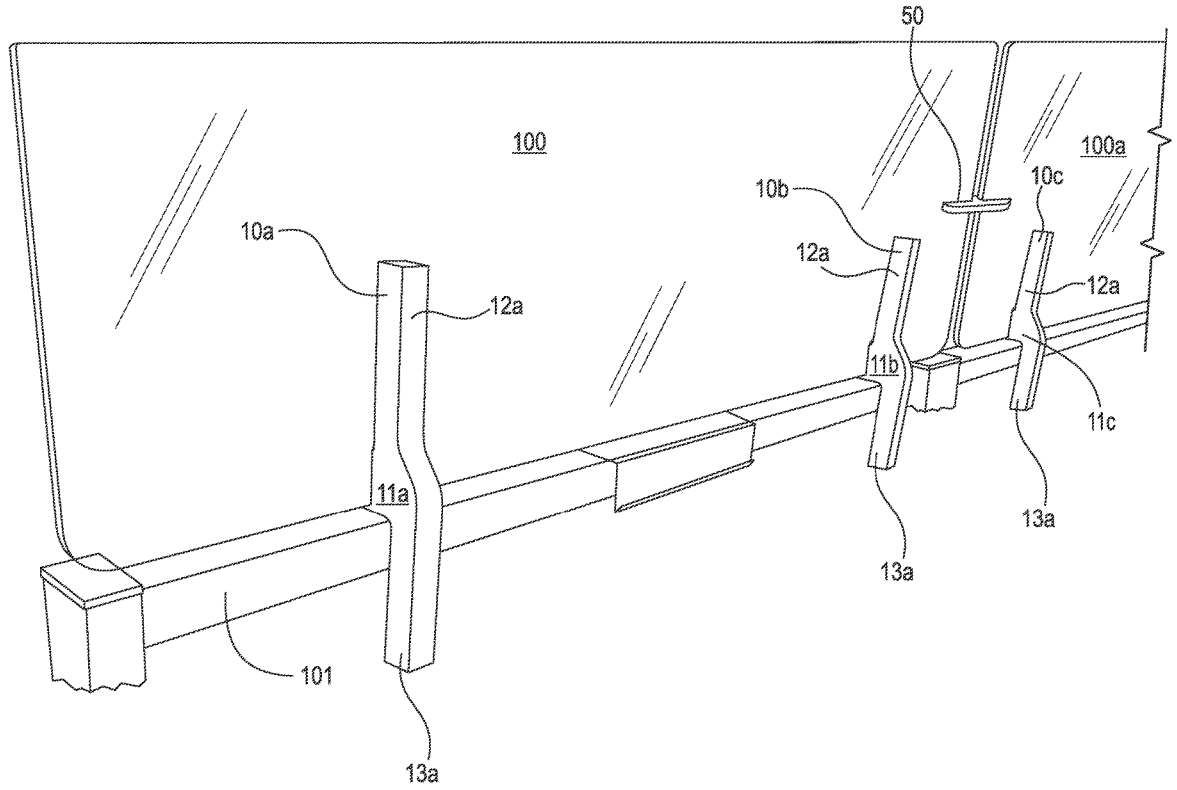
(57) **ABSTRACT**

A partition mounting device, comprising a body, a pair of arms extending upwardly from the body, a pair of legs extending downwardly from the middle body, an upper trapezoidal-shaped channel formed between and by the pair of arms, and, a lower trapezoidal-shaped channel formed between and by the pair of legs.



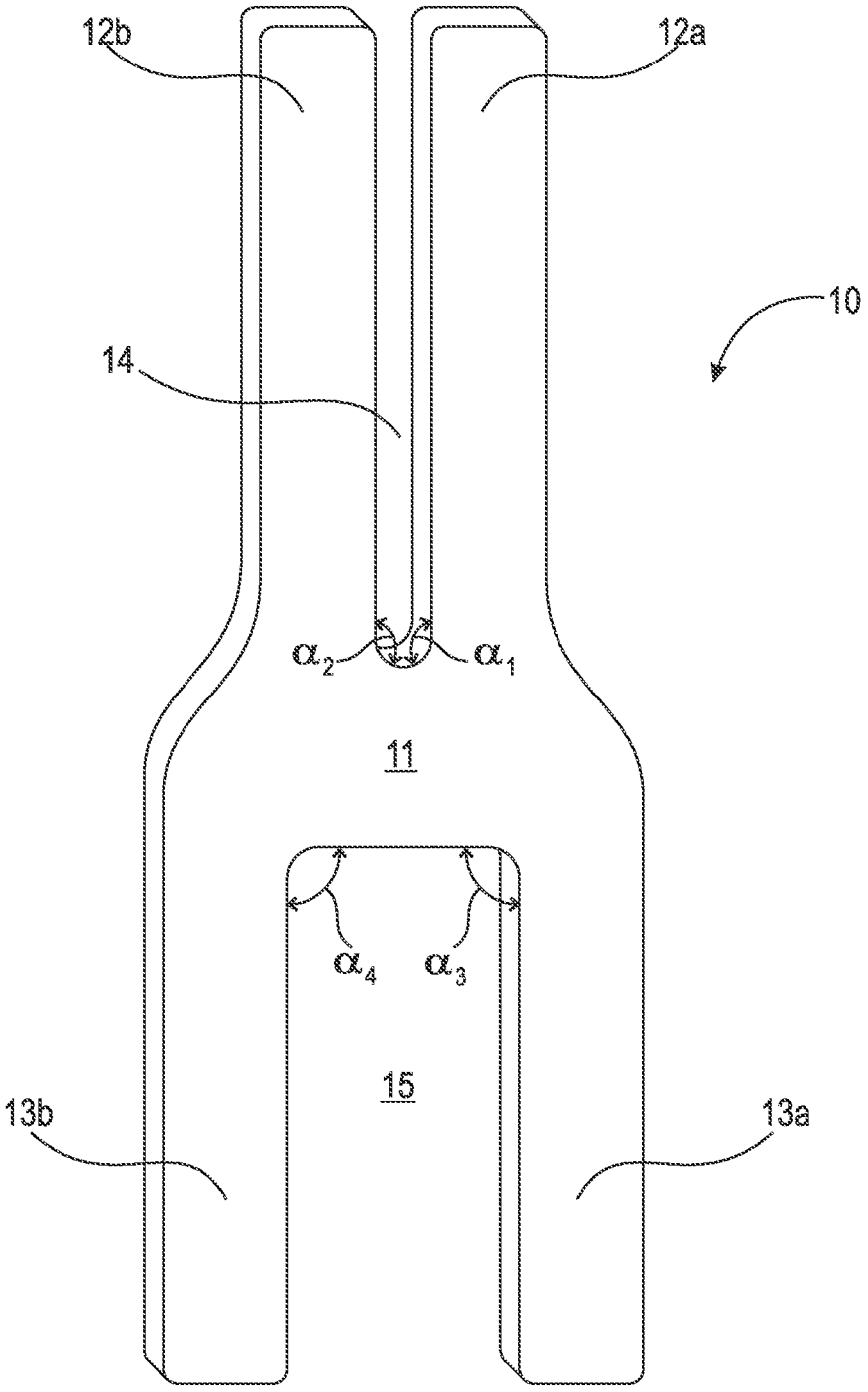
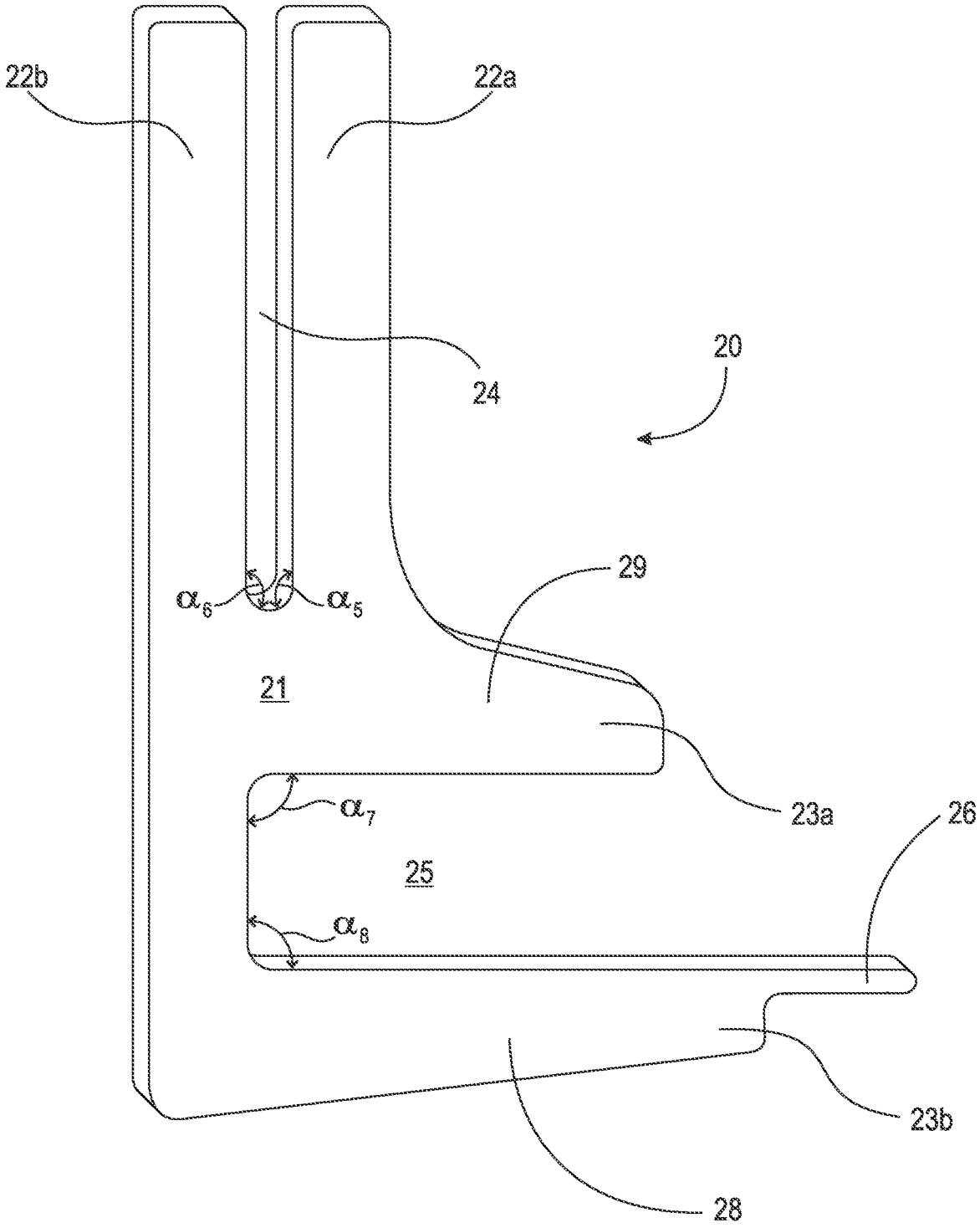


Fig. 1


22b
22a
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20
29
α_6
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23a
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α_8
23b
28

Fig. 2

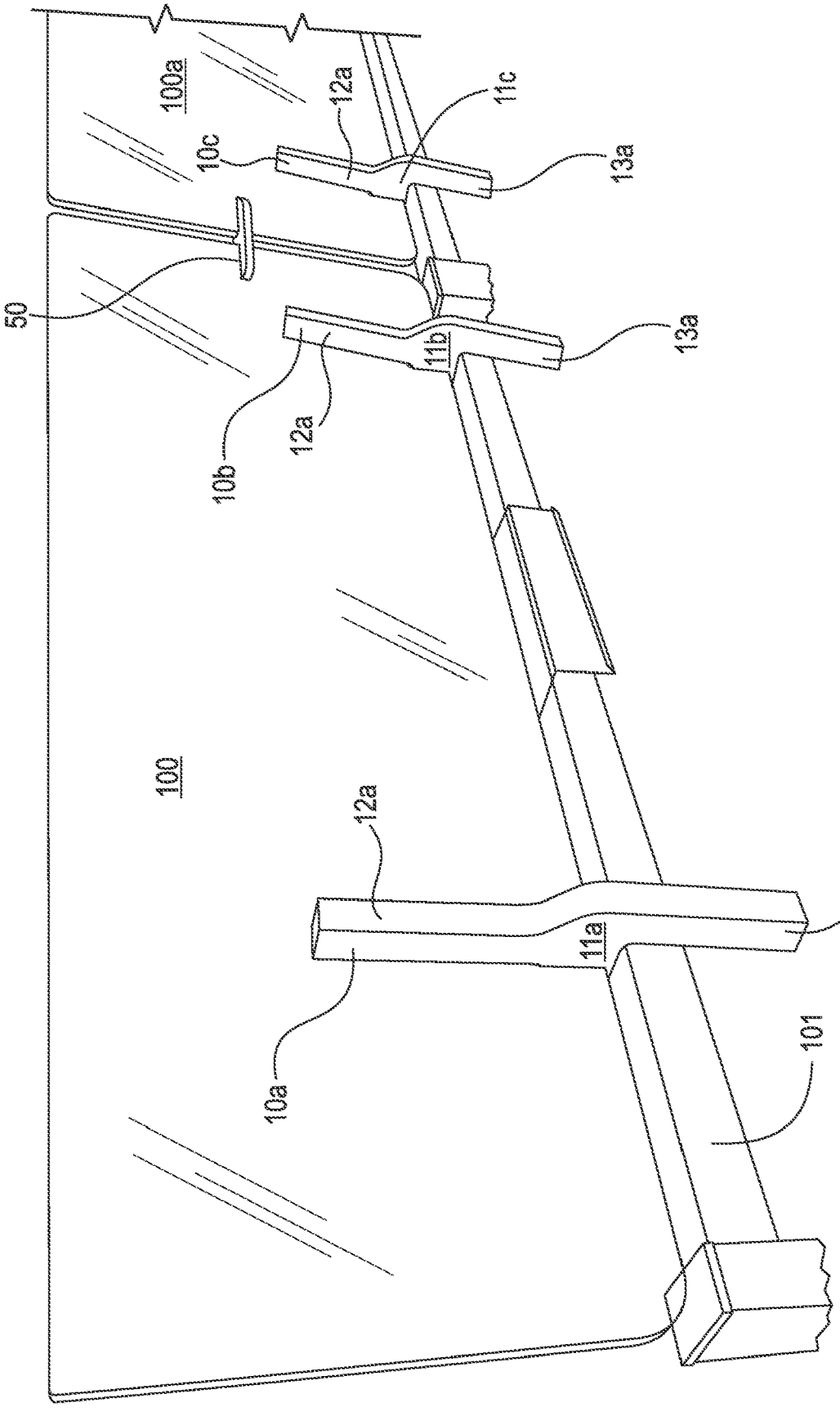

Fig. 3

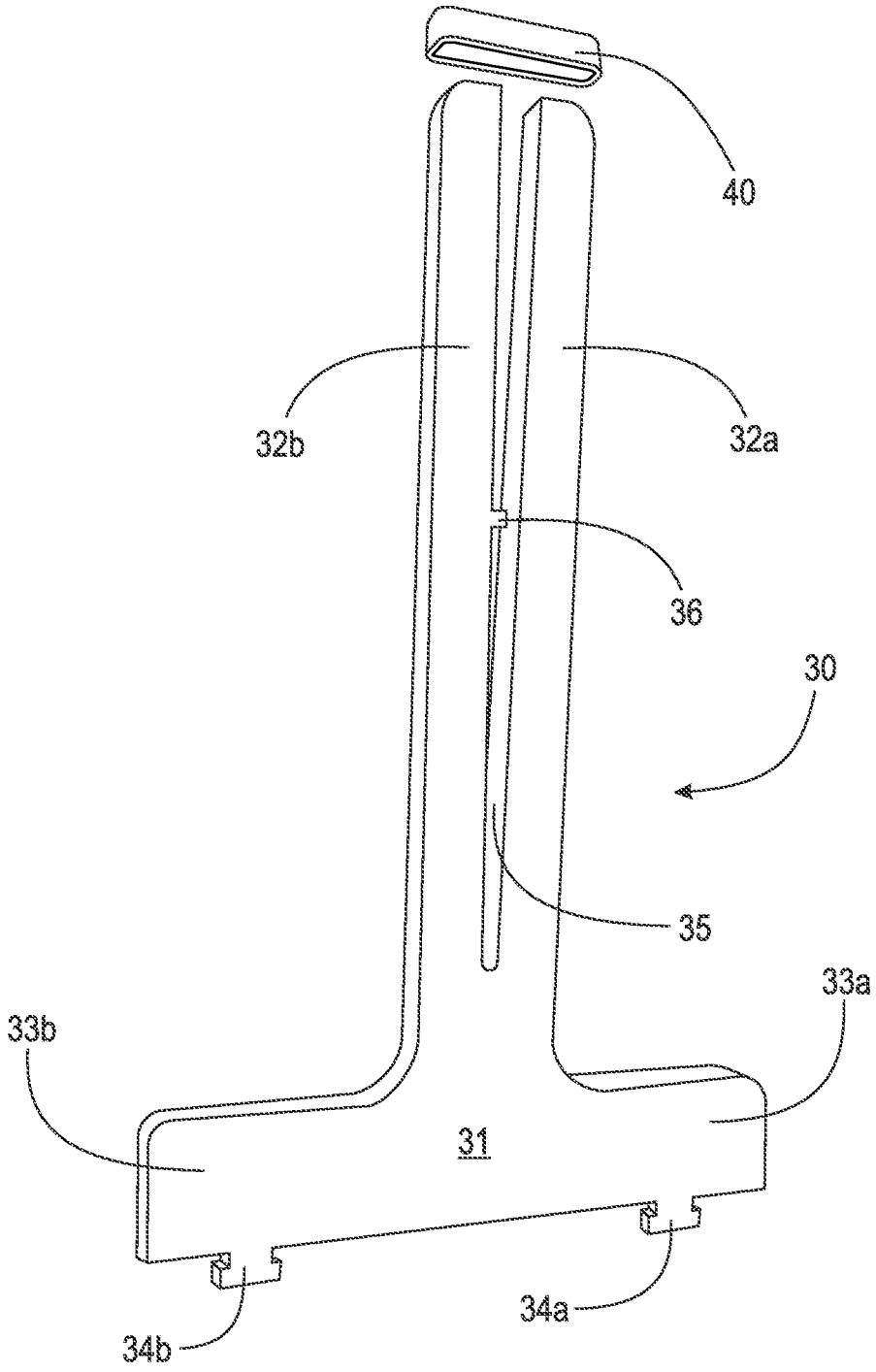

Fig. 4

PARTITION MOUNTING DEVICE AND METHOD OF MANUFACTURING THE SAME

FIELD

[0001] The present invention relates generally to a partition mounting device arranged to secure privacy, social distancing and sanitary dividers to desks, cubicle partitions and other office furniture. The present invention also relates to a method of manufacturing a partition mounting device.

BACKGROUND

[0002] In early 2020, SARS-CoV-2 spread worldwide, forcing many states in the United States to institute lock-down protocols. Those protocols resulted in the closing of many offices and businesses, requiring employees to work remotely. During the late spring and early summer of 2020, some states began allowing allow employees to return to physical offices so long as safety measures were instituted following OHSA's Guidance for Preparing Workplaces for COVID-19: https://www.osha.gov/Publications/OSHA3990.pdf.

[0003] One of OHSA's guidelines recommended the installation of physical barriers, either temporary, e.g., plexiglass panels, or permanent, e.g., walls. Due to the low cost of plexiglass, many business owners installed temporary fixtures to hold the plexiglass panels. Some of these options included simple 2×4 mounts, hanging panels from the ceiling by wires or string, or creating floor stands to provide barriers for open-concept offices.

[0004] A problem with these options is that they are normally unsightly, clunky, and are not designed for adjustability to accommodate changes that may occur in an office layout.

[0005] Thus, there is a long felt need for a partition mounting device that sturdily secures partition panels to various types of office furniture, and presents a minimalist and aesthetically pleasing appearance while still allowing quick and easy adjustments to partition configurations.

SUMMARY

[0006] In a preferred embodiment, the present invention broadly comprises a partition mounting device having a body, a pair of arms extending upwardly from the body, a pair of legs extending downwardly from the body, an upper trapezoidal-shaped channel formed between and by the pair of arms, and a lower trapezoidal-shaped channel formed between and by the pair of legs.

[0007] In an alternative embodiment the present invention broadly comprises a partition mounting device, comprising a middle section, a pair of arms extending upwardly from the middle section, a pair of legs extending perpendicularly from the middle section, an upper trapezoidal-shaped channel formed between and by the pair of arms, and, a perpendicular trapezoidal-shaped channel formed between and by the pair of legs.

[0008] In a further alternative embodiment the present invention broadly comprises a partition mounting stand, comprising a partition and a partition mounting device, wherein the partition mounting device comprises a body, a pair of arms extending upwardly from the body, a pair of legs extending outwardly from the body, a pair of feet extending perpendicularly outward from the pair of legs, a v-shaped channel formed between and by the pair of arms and arranged to hold and secure the partition, and a locking collar arranged to slidably engage the V-shaped channel at the distal end compressing the V-shaped channel to contact the partition.

[0009] The invention also includes a method of manufacturing a partition mounting device, comprising the steps of sending an installation kit to an end-user of the mounting device, the kit including an illustration of a typical workstation to be outfitted with one or more partitions, the illustration containing fields for the end-user to enter certain workstation dimensions, and, a pair of calipers; the method further including the steps of measuring thickness of a partition to which the partition mounting device will be affixed with the pair of calipers, where the measuring is performed by the end-user, photographing the pair of calipers in place while measuring the thickness of the partition to which the partition mounting device will be affixed, where the photographing is performed by the end-user, receiving the dimensions, measurements and photograph(s) from the end-user, and, manufacturing the partition mounting device according to dimensions and measurements provided by the end-user.

[0010] A primary object of the present invention is to provide a device that temporarily secures partition panels to office desks and cubicle walls.

[0011] A secondary object of the present invention is to provide a device that temporarily secures partition panels and is easily assembled, disassembled, and reconfigured.

[0012] A further object of the present invention is to provide a minimalist and single-piece device that temporarily secures partition panels to office desks and cubicle walls.

[0013] Another object of the present invention is to provide for a plurality of the devices to be combined with a variety of sized partitions or a plurality of partitions to accommodate the needs of various office configurations.

[0014] Yet another object of the present invention is to provide for a standalone partition barrier holder comprised of a singular piece that also includes a locking mechanism.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] Various embodiments are disclosed, by way of example only, with reference to the accompanying schematic drawings in which corresponding reference symbols indicate corresponding parts, in which:

[0016] FIG. **1** shows a front view of a first embodiment of the present invention;

[0017] FIG. **2** shows a front view of a second embodiment of the present invention;

[0018] FIG. **3** shows a perspective view of the present invention in FIG. **1** attaching a partition barrier to a cubicle wall barrier; and,

[0019] FIG. **4** shows a front view of a third embodiment of the present invention.

DETAILED DESCRIPTION

[0020] At the outset, it should be appreciated that like drawing numbers on different drawing views identify identical, or functionally similar, structural elements. It is to be understood that the claims are not limited to the disclosed aspects. It should be appreciated that, although the disclosed partition mounting device embodiments of the present invention finds particular application on a cubicle wall barrier and a desktop, that the invention likely has applica-

tions in other locations as well. For example, the invention could be used anywhere in an office setting where it is necessary to provide physical barriers as recommended by OSHA in view of SARS-CoV-2, e.g., bar tops, cashier or point of sale counters, reception desks, etc.

[0021] Furthermore, it is understood that this disclosure is not limited to the particular methodology, materials and modifications described and as such may, of course, vary. It is also understood that the terminology used herein is for the purpose of describing particular aspects only and is not intended to limit the scope of the claims.

[0022] Unless defined otherwise, all technical and scientific terms used herein have the same meaning as commonly understood to one of ordinary skill in the art to which this disclosure pertains. It should be understood that any methods, devices or materials similar or equivalent to those described herein can be used in the practice or testing of the example embodiments.

[0023] It should be appreciated that the term "substantially" is synonymous with terms such as "nearly," "very nearly," "about," "approximately," "around," "bordering on," "close to," "essentially," "in the neighborhood of," "in the vicinity of," etc., and such terms may be used interchangeably as appearing in the specification and claims. It should be appreciated that the term "proximate" is synonymous with terms such as "nearby," "close," "adjacent," "neighboring," "immediate," "adjoining," etc., and such terms may be used interchangeably as appearing in the specification and claims.

[0024] Adverting to the figures, FIG. **1** is a front side view of a first embodiment of the present invention. Partition mounting device **10** is preferably configured to frictionally attach to the top of a cubicle barrier wall (i.e., a partition); however, varying the width of the below-described channel allows partition mounting device **10** to adapt to a variety of barrier or wall structures.

[0025] Partition mounting device **10** comprises body **11**, arms **12***a* and **12***b*, and legs **13***a* and **13***b*. In a preferred embodiment, body **11**, arms **12***a* and **12***b*, and legs **13***a* and **13***b* comprise a single piece. The inside surfaces of first arm **12***a* and second arm **12***b* of partition mounting device **10** forms upper trapezoidal channel **14**. The distal ends of arms **12***a* and **12***b* are spaced apart at a shorter distance than the proximal ends fixedly secured to body **11**. The distal end of channel **14** forms a rounded end that has a center point. In a preferred embodiment, angle α**1** is 89° and is formed from the inside surface of arm **12***a* and the midpoint of channel **14** rounded end. In a preferred embodiment, angle α**2** is 89° and is formed by the inside surface of arm **12***b* and the midpoint of channel **14** rounded end. Legs **13***a* and **13***b* of partition mounting device **10** inside surface forms lower trapezoidal channel **15**. The distal ends of legs **13***a* and **13***b* are spaced apart at a shorter distance than the proximal ends fixedly secured to body **11**. In a preferred embodiment, angle α**3** is 88° and is formed by the inside surface of leg **13***a* and the proximal inside surface of channel **15**. In a preferred embodiment, angle α**4** is 88° and is formed by the inside surface of leg **13***b* and the proximal inside surface of channel **15**. Lower trapezoidal channel **15** is operatively arranged to slidably engage a cubicle barrier wall top surface contacting the lower surface of body **11**. The distal ends of legs **13***a* and **13***b* create a greater force of friction on both sides of cubicle barrier compare to the proximal ends of legs **13***a* and **13***b*. Upper trapezoidal channel **14** is operatively arranged to accept and engage a partition barrier slot with a preferable width substantially the same of body **11** depth. It should be appreciated that slight variations in angles α**1**, α**2**, α**3** and α**4** are possible and such variations are intended to be within the scope of the appended claims.

[0026] Partition mounting device **10** may be used in pairs, or in a greater number depending on the length of a partition barrier. In a preferred embodiment the number of partition mounting devices required is determined from a one-to-one ratio with the number of partition barrier slots, as shown in FIG. **3**.

[0027] FIG. **3** shows a perspective view of the present invention engaged with a cubicle barrier wall and partition barriers. Cubicle wall **101** extends upwardly from a desk portion of a cubicle as commonly known in the art. To increase the protection from adjacent cubicles, partition mounting devices **10***a*, **10***b*, and **10***c* are used to secure partitions **100** and **100***a* to cubicle barrier wall **101**. Lower trapezoidal channel **15** (shown in FIG. **1**) of partition mounting devices **10***a*, **10***b*, and **10***c* engage the top surface of a cubicle barrier wall **101**. First leg **13***a* of partition mounting devices **10***a*, **10***b*, and **10***c* are shown gripping one side of cubicle barrier wall **101** while second leg **13***b* of partition mounting devices **10***a*, **10***b*, and **10***c* grips of the opposite side of cubicle barrier wall **101** (not shown). A plurality of slots of partition barrier **100** and **100***a* are inserted into upper trapezoidal channel **14** (shown in FIG. **1**) of partition mounting devices **10***a*, **10***b*, and **10***c* of pair of arms **12**. Partition barrier **100** and **100***a* exerts a frictional force between one of the inside surfaces of lower trapezoidal channel **15** and a contacted cubicle barrier wall **101** side surface to hold the mounting device in place.

[0028] Adverting to FIG. **2**, FIG. **2** is a front side view of a second embodiment of the present invention. Partition mounting device **20** is preferably configured to frictionally clamp a top and bottom surface of a desktop, however varying the width of the below-described channel allow partition mounting device **20** to adapt to a variety of fixtures, e.g., a countertop, an end table, a bar top, a reception desk, a work bench, etc.

[0029] Partition mounting device **20** comprises body **21**, pair of arms **22**, and pair of legs **23**. In a preferred embodiment, body **21**, arms **22***a* and **22***b*, and legs **23***a* and **23***b* comprise a single piece. The inside surfaces of first arm **22***a* and second arm **22***b* of partition mounting device **20** form upper trapezoidal channel **24** of partition mounting device **20**. The distal ends of arms **22***a* and **22***b* are spaced apart at a shorter distance than the proximal ends fixedly secured to body **21**. The distal end of channel **24** forms a rounded end that has a center point. In a preferred embodiment, angle α**5** is 89° and is formed from the inside surface of arm **22***a* and the midpoint of channel **24** rounded end. In a preferred embodiment, angle α**6** is 89° and is formed by the inside surface of arm **22***b* and the midpoint of channel **24** rounded end. Legs **23***a* and **23***b* of partition mounting device **20** are designated by long leg **28** (leg **23***b*) and short leg **29** (leg **23***a*). Long leg **28** terminates at the distal end to tab **26**. Tab **26** is operatively arranged to accept a screw to threadably secure an engaged partition mounting device **20** to a desktop although tab be configured with a gripping surface to frictionally secure to a desktop. Legs **23***a* and **23***b* of partition mounting device **20** inside surface forms perpendicular trapezoidal channel **25**. The distal ends of pair of legs **23** are spaced apart at a shorter distance than the proximal

ends fixedly secured to body **21**. In a preferred embodiment, angle α**7** is 90° and is formed by the inside surface of leg **23***a* and the inside surface of channel **25**. In a preferred embodiment, angle α**8** is 87° and is formed by the inside surface of leg **23***b* and the inside surface of channel **25**. Perpendicular trapezoidal channel **25** is operatively arranged to slidably engage a desktop surface contacting the proximate side surface of body **21**. The distal ends of legs **23***a* and **23***b* create a greater force of friction on the top and bottom surfaces of a desktop compared to the proximal ends of legs **23***a* and **23***b*. Upper trapezoidal channel **24** is operatively arranged to accept and engage a partition barrier slot, preferably a width that is substantially the same as body **21** width. It should be appreciated that slight variations in angles α**5**, α**6**, and α**8** are possible and such variations are intended to be within the scope of the appended claims.

[0030] Partition mounting device **20** may be used in pairs, or in a greater number, depending on the length, height and weight of a partition barrier to be secured. In a preferred embodiment, the number of partition mounting devices used is a one-to-one ratio with the number of partition barrier slots, similar to partition mounting device **10** shown in FIG. **3**. When perpendicular trapezoidal channel **25** of partition mounting device **20** is slidably engaged to a desktop bottom surface and top surface, a partition barrier slot is then inserted into upper trapezoidal channel **24**. The height and force of a partition barrier wall creates a force between one of the inside surfaces of perpendicular trapezoidal channel **25** and a contacts a desktop bottom or top surface cubicle barrier wall side surface, increasing the frictional resistance of an engaged perpendicular trapezoidal channel **15**.

[0031] FIG. **4** shows a front view of a third embodiment of the present invention. Partition mounting stand **30** comprises body **31**, arms **32***a* and **32***b*, legs **33***a* and **33***b*, feet **34***a* and **34***b*, and locking collar **40**. In a preferred embodiment body **31**, arms **32***a* and **32***b*, legs **33***a* and **33***b*, and feet **34***a* and **34***b* of partition mounting stand **30** are a singular piece. Feet **34***a* and **34***b* extend perpendicularly outward relative to legs **33***a* and **33***b*. Arms **32***a* and **32***b* form v-shaped channel **35** arranged to accept a partition barrier. An engaged partition barrier within v-shaped channel **35** is secured by locking collar **40**. Locking collar **40** is arranged to slidably surround a compressed v-shaped channel **35**, preventing an engaged partition barrier from being removed without disengaging locking collar **40**. Partition mounting stand **30** may also comprise tab **36** that is arranged to fit a through-bore in a partition barrier to ensure a greater engagement. Partition mounting stand **30** is arranged to stand on a flat surface. Arms **32***a* and **32***b* may be of any length suitable to accommodate a variety of sized partition panels. Legs **33***a* and **33***b*, and feet **34***a* and **34***b* may be of a greater length to accommodate for a greater length of arms **32***a* and **32***b* in order to maintain partition mounting stand **30** in an upright position while engaging a partition barrier.

[0032] Partition mounting stand **30** may be used in pairs, or in a greater number, depending on the length, height and weight of a partition barrier to be secured. In a preferred embodiment, the number of partition mounting devices used is a one-to-one ratio with the number of partition barrier slots, similar to the arrangement of partition mounting device **10** shown in FIG. **3**.

[0033] The present invention also comprises a method of manufacturing a partition mounting device. First an installation kit is sent to an end-user requesting partitions **100** (FIG. **3**) and mounting devices **10** or **20** (FIGS. **1** and **2**). The kit includes an illustrative example of a workstation that the end-user is requesting to be outfitted with the partitions and a pair of calipers. The illustration also includes fields of measurements that are to be completed by the end-user. The end-user then measures the thickness of cubicle wall **101** or any other wall that is being outfitted with the calipers provided and records the measurements in the illustration's fields. While the calibers are affixed to cubicle wall **101** for measuring, or any other objects present in the workstation, the end-user will photograph the calibers and send back the photographs of the measurements and the recorded measurements on the illustration. Once the measurements and photographs are received by the manufacture, the partition mounting device is manufactured to the exact specifications provided by the end-user.

[0034] Thus, it is seen that the objects of the invention are efficiently obtained, although it should be apparent that alternative embodiments of the invention are possible and intended to be within the scope of the appended claims.

REFERENCE NUMERALS

[0035] **10** partition mounting device
[0036] **10***a* partition mounting device
[0037] **10***b* partition mounting device
[0038] **10***c* partition mounting device
[0039] **11** body of partition mounting device **10**
[0040] **11***a* body of partition mounting device **10***a*
[0041] **11***b* body of partition mounting device **10***b*
[0042] **11***c* body of partition mounting device **10***c*
[0043] **12***a* first arm of partition mounting device **10**
[0044] **12***b* second arm of partition mounting device **10**
[0045] **13***a* first leg of partition mounting device **10**
[0046] **13***b* second leg of partition mounting device **10**
[0047] **14** upper trapezoidal channel of partition mounting device **10**
[0048] **15** lower trapezoidal channel of partition mounting device **10**
[0049] **20** partition mounting device
[0050] **21** body of partition mounting device **20**
[0051] **22***a* first arm of partition mounting device **20**
[0052] **22***b* second arm of partition mounting device **20**
[0053] **23***a* first leg of partition mounting device **20**
[0054] **23***b* second leg of partition mounting device **20**
[0055] **24** upper trapezoidal channel of partition mounting device
[0056] **25** perpendicular trapezoidal channel of partition mounting device
[0057] **26** tab of partition mounting device
[0058] **28** long leg of partition mounting device
[0059] **29** short leg of partition mounting device
[0060] **30** partition mounting stand
[0061] **31** body of partition mounting stand **30**
[0062] **32***a* first arm of partition mounting stand **30**
[0063] **32***b* second arm of partition mounting stand **30**
[0064] **33***a* first leg of partition mounting stand **30**
[0065] **33***b* second leg of partition mounting stand **30**
[0066] **34***a* first foot of partition mounting stand **30**
[0067] **34***b* second foot of partition mounting stand **30**
[0068] **35** v-shaped channel of partition mounting stand **30**
[0069] **36** tab of partition mounting stand **30**
[0070] **40** locking collar of partition mounting stand
[0071] **50** clip
[0072] **100** partition barrier

[0073] **100***a* partition barrier
[0074] **101** cubicle wall barrier
[0075] α**1** inside angle of channel **14**
[0076] α**2** inside angle of channel **14**
[0077] α**3** inside angle of channel **15**
[0078] α**4** inside angle of channel **15**
[0079] α**5** inside angle of channel **24**
[0080] α**6** inside angle of channel **24**
[0081] α**7** inside angle of channel **25**
[0082] α**8** inside angle of channel **25**

What is claimed is:

1. A partition mounting device, comprising:
a body;
a pair of arms extending upwardly from said body;
a pair of legs extending downwardly from said middle body;
an upper trapezoidal-shaped channel formed between and by said pair of arms; and,
a lower trapezoidal-shaped channel formed between and by said pair of legs.

2. The partition mounting device recited in claim **1** wherein each leg of said pair of legs is substantially of identical length to the remaining leg of said pair of legs.

3. The partition mounting device recited in claim **1** wherein each arm of said pair of arms is of substantially of identical length to the remaining arm of said pair of arms.

4. The partition mounting device recited in claim **1** where each leg of said pair of legs is longer in length than each arm of said pair of arms.

5. The partition mounting device recited in claim **1** wherein said lower trapezoidal-shaped channel is wider than said upper trapezoidal-shaped channel.

6. A partition mounting device, comprising:
a body;
a pair of arms extending upwardly from said body;
a pair of legs extending perpendicularly from said body;
an upper trapezoidal-shaped channel formed between and by said pair of arms; and,
a perpendicular trapezoidal-shaped channel formed between and by said pair of legs.

7. The partition mounting device recited in claim **6** wherein each arm of said pair of arms is of substantially of identical length to the remaining arm of said pair of arms.

8. The partition mounting device recited in claim **6** wherein the distal leg of said pair of arms is of longer length to the remaining leg of said pair of legs.

9. The partition mounting device recited in claim **6** wherein said lower trapezoidal-shaped channel is wider than said upper trapezoidal-shaped channel.

10. The partition mounting device recited in claim **7** wherein said distal leg comprises a tab.

11. The partition mounting device recited in claim **1** wherein said upper trapezoidal-shaped channel is operatively arranged to accept a partition panel and said lower trapezoidal-shaped channel is operatively arranged to slidably attach atop a cubicle wall.

12. The partition mounting device recited in claim **6** wherein said upper trapezoidal-shaped channel is operatively arranged to accept a partition panel and said perpendicular trapezoidal-shaped channel is operatively arranged to slidably attach to a desktop side surface.

13. The partition mounting device recited in claim **1** is comprised of high-density polyethylene.

14. The partition mounting device recited in claim **6** is comprised of high-density polyethylene.

15. The partition mounting device recited in claim **1** is comprised of a single piece.

16. The partition mounting device recited in claim **6** is comprised of a single piece.

17. An office furniture partition mounting assembly, comprising:
a partition;
a partition mounting device, wherein said mounting device comprises:
a body;
a pair of arms extending upwardly from said body;
a pair of legs extending downwardly from said middle body;
an upper trapezoidal-shaped channel formed between and by said pair of arms and arranged to hold and secure said partition; and,
a lower trapezoidal-shaped channel formed between and by said pair of legs and arranged to hold and secure a part of said office furniture.

18. A partition mounting stand, comprising:
a partition;
a partition mounting device, wherein said partition mounting device comprises:
a body;
a pair of arms extending upwardly from said body;
a pair of legs extending outwardly from said middle body;
a pair of feet extending perpendicularly outward from said pair of legs;
a v-shaped channel formed between and by said pair of arms and arranged to hold and secure said partition; and,
a locking collar arranged to slidably engage said v-shaped channel at the distal end compressing said v-channel to contact said partition.

19. A method of manufacturing a partition mounting device, comprising the steps of:
sending an installation kit to an end-user of said mounting device, said kit comprising:
an illustration of a typical workstation to be outfitted with one or more partitions, said illustration containing fields for said end-user to enter certain workstation dimensions; and,
a pair of calipers;
measuring thickness of a partition to which said partition mounting device will be affixed with said pair of calipers, where said measuring is performed by said end-user;
photographing said pair of calipers in place while measuring said thickness of said partition to which said partition mounting device will be affixed, where said photographing is performed by said end-user;
receiving said dimensions, measurements and photograph (s) from said end-user; and,
manufacturing said partition mounting device according to dimensions and measurements provided by said end-user.

* * * * *