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Clancy

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(54) **PARTITION OR BARRIER SYSTEM**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 426 days.

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E04G 21/24 (2006.01)

(52) **U.S. Cl.**
CPC ***E04G 21/243*** (2013.01); ***E04B 2/74*** (2013.01)

(58) **Field of Classification Search**
CPC E04G 21/243; E04G 21/241; E04B 2/74; E04B 2002/7468; E04B 2002/7461; E04B 2009/7479; E04B 2/821; E04B 2025/006
USPC 248/342, 343, 683, 206.5, 309.4
See application file for complete search history.

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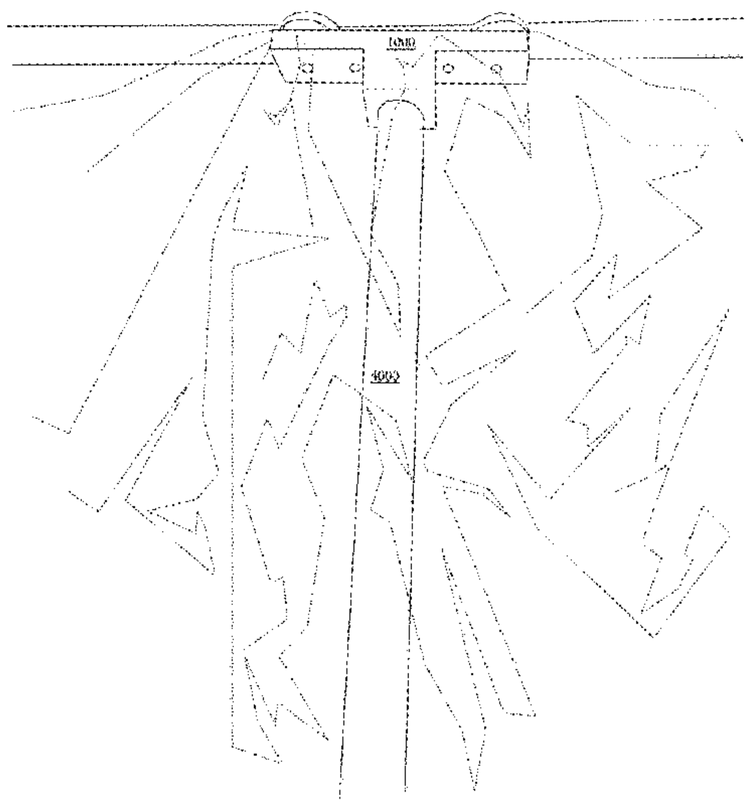
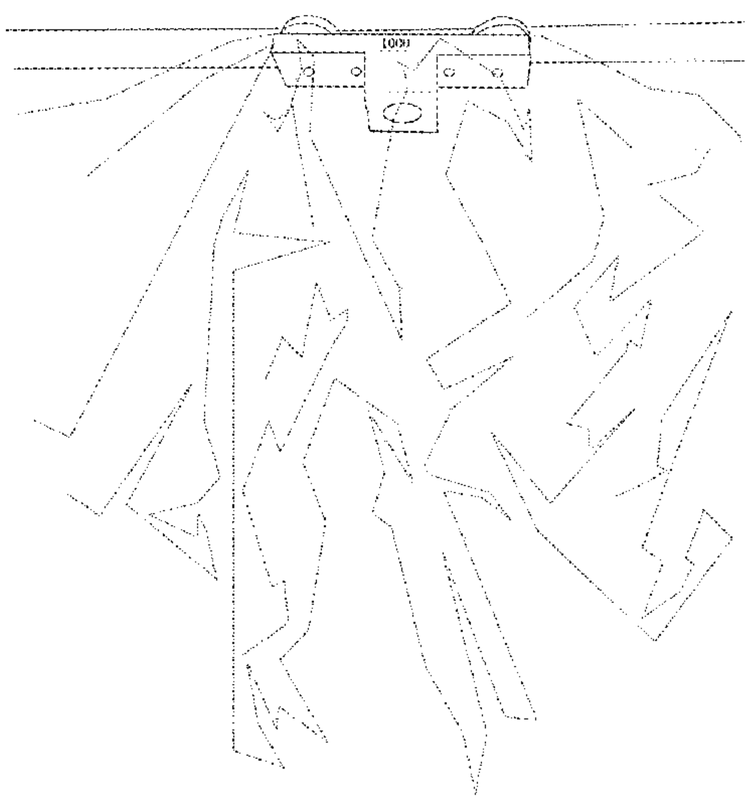
(57) **ABSTRACT**

Disclosed is a T-block attachment with a magnetized bolt for (first) securing a plastic sheet or curtain to the mount and (second) securing the mount to a metallic grid of a paneled sealing. In a first embodiment, the T-block features a stem and two arms wherein the stem includes a pole receptacle and each arm includes both a clip receptacle and a bolt receptacle.

2 Claims, 8 Drawing Sheets





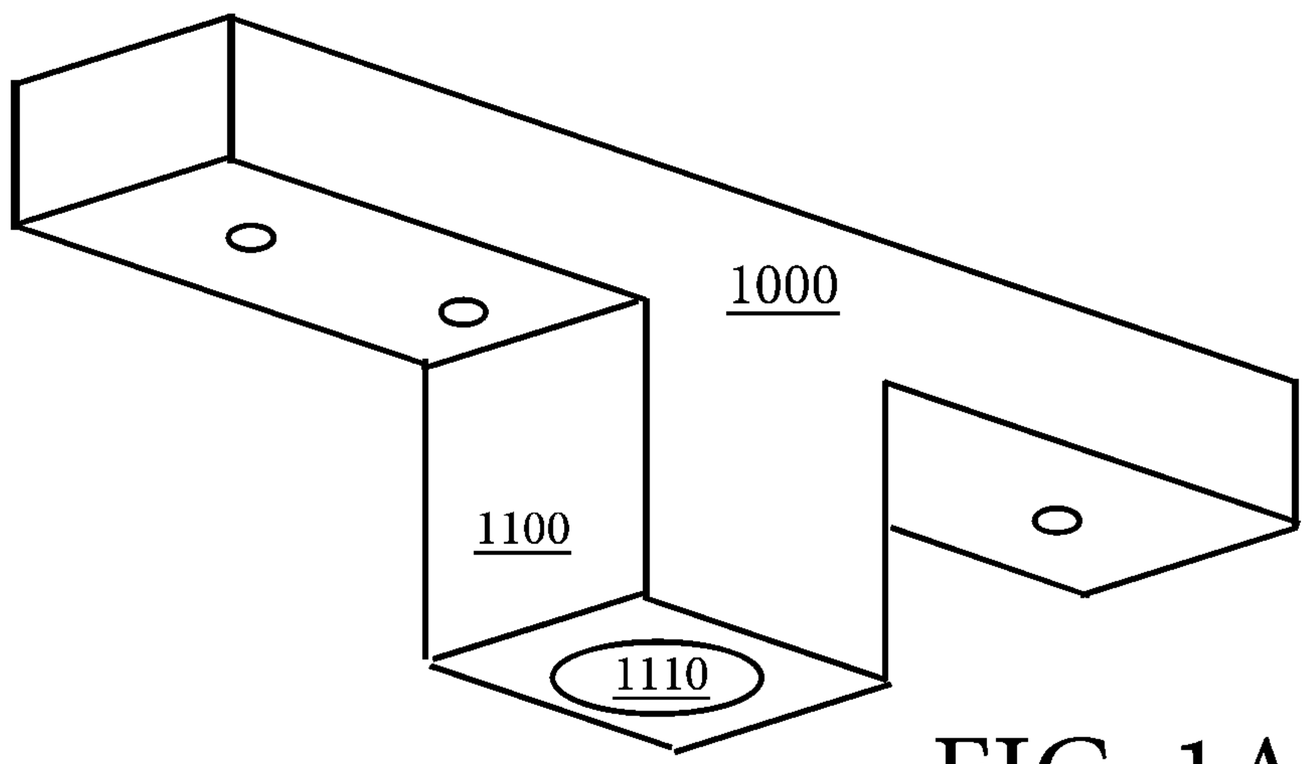


FIG. 1A

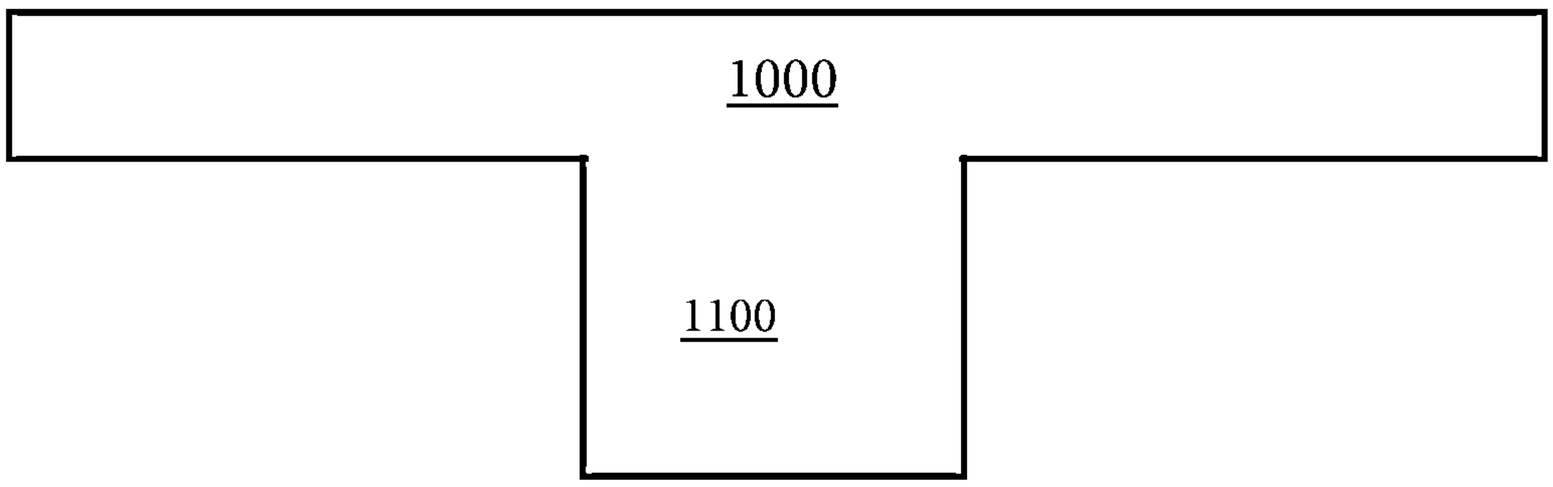


FIG. 2A

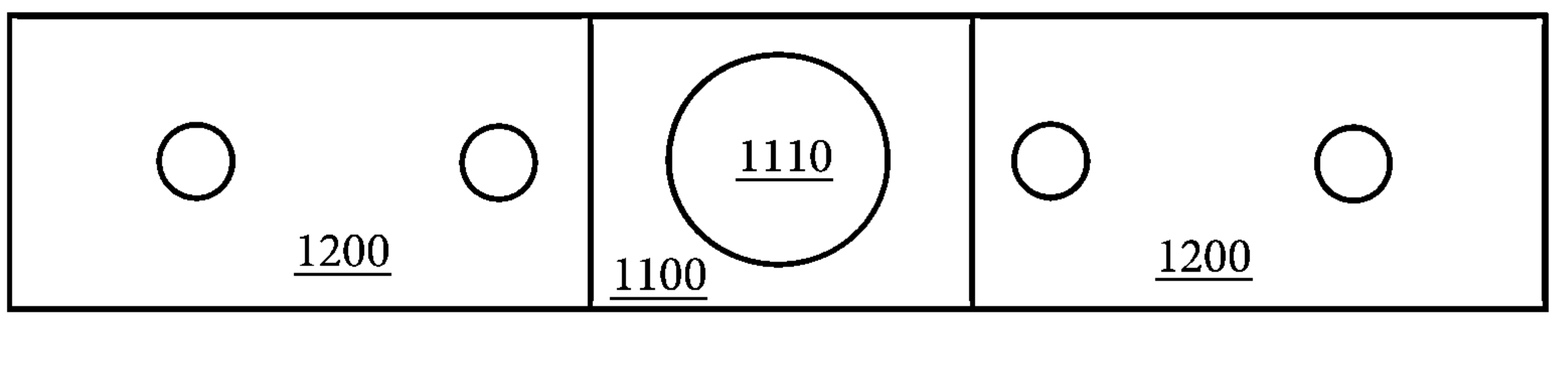


FIG. 3A

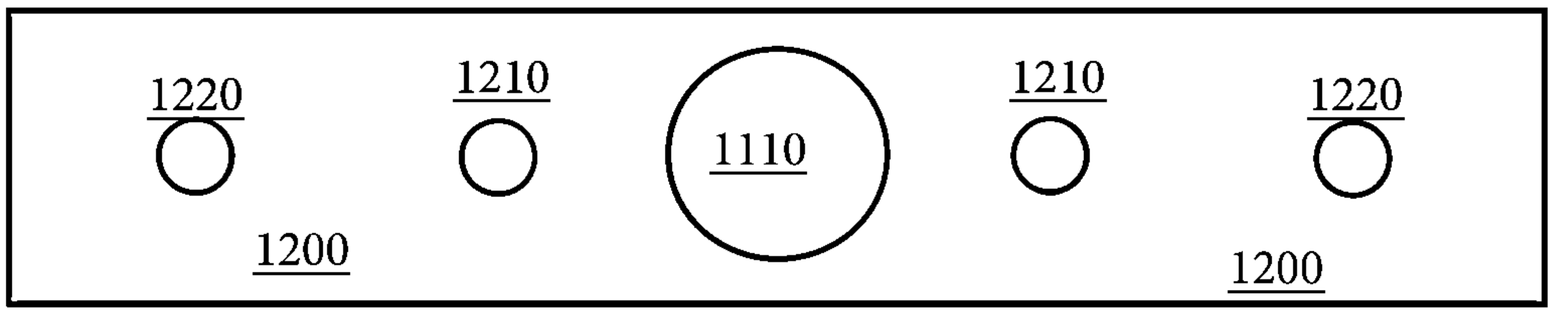


FIG. 4

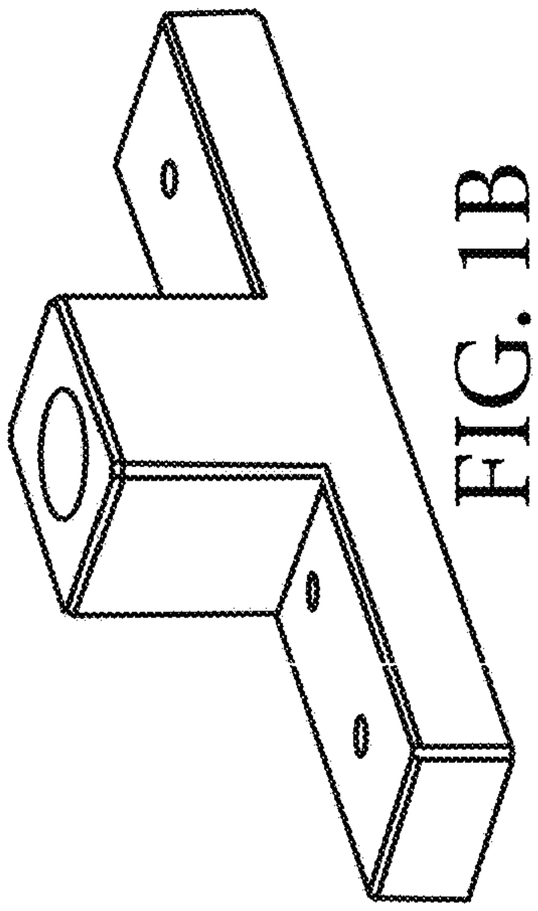


FIG. 1B

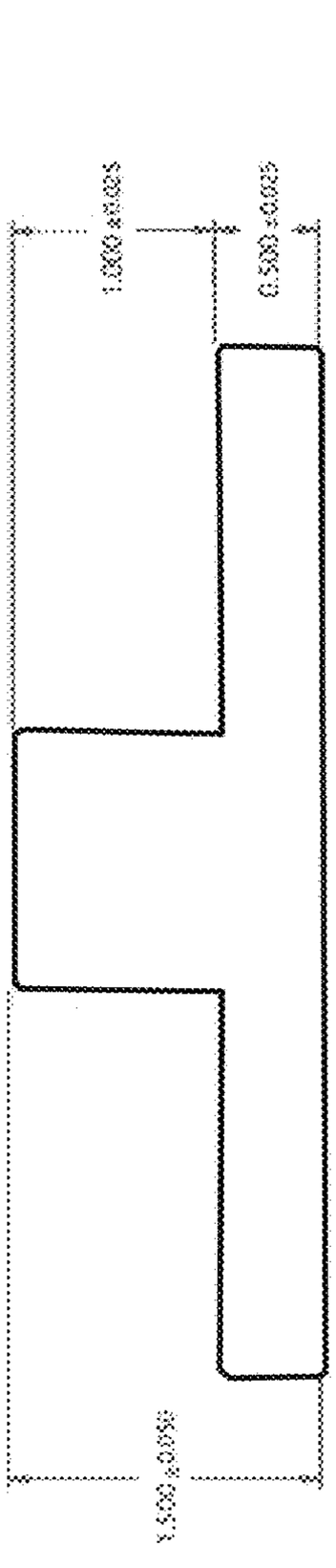


FIG. 2B

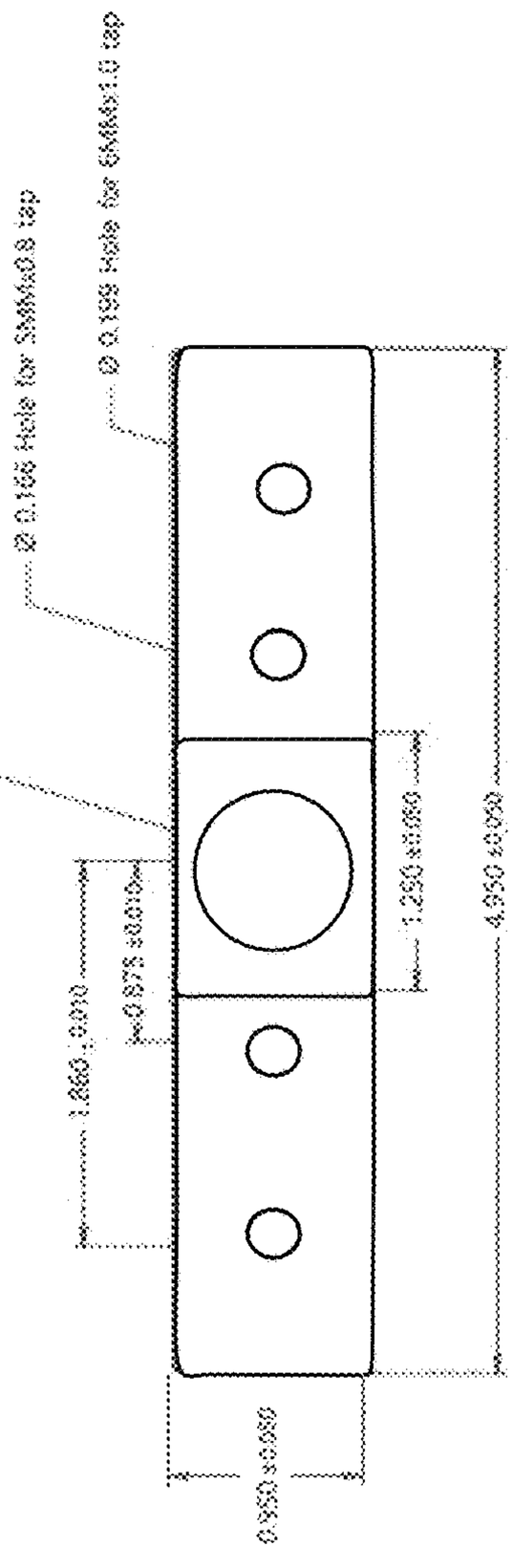


FIG.3B

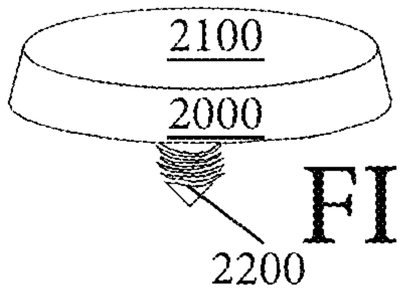


FIG. 5

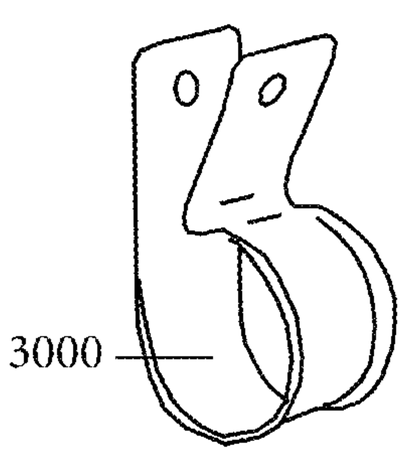


FIG. 6

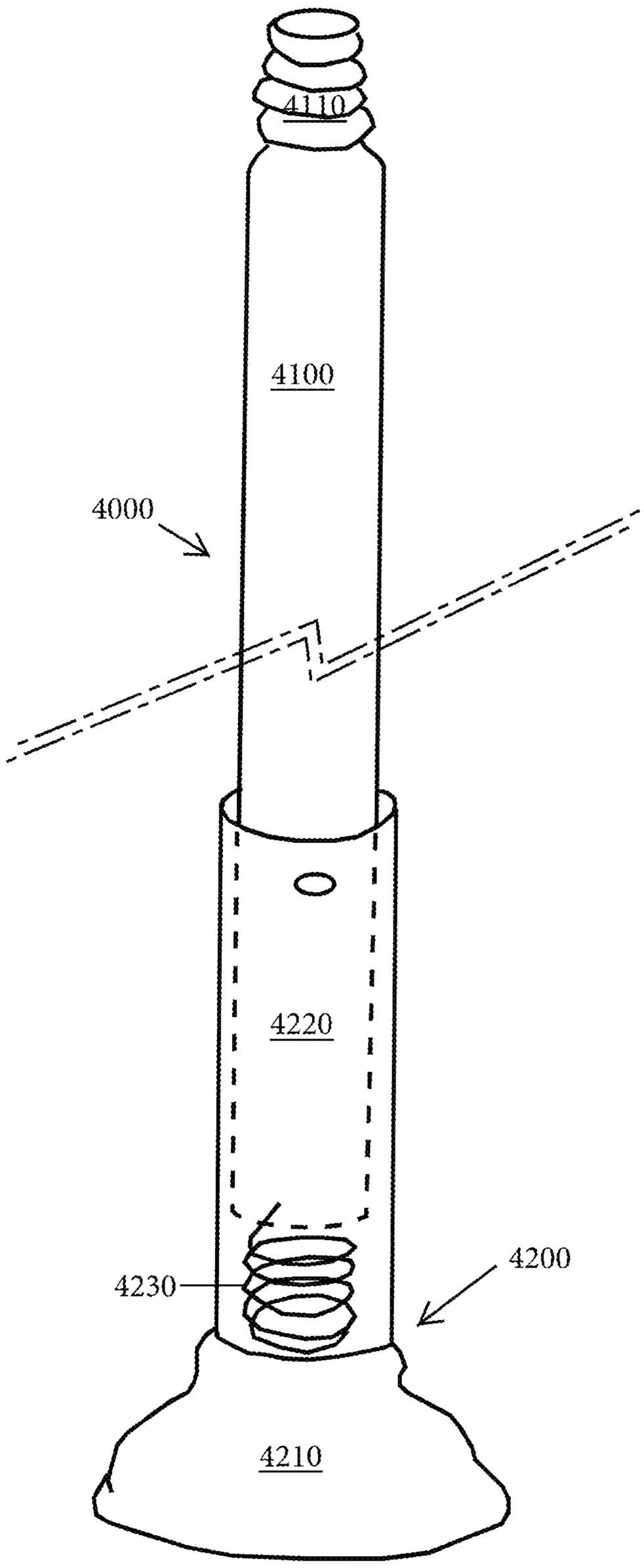


FIG. 7

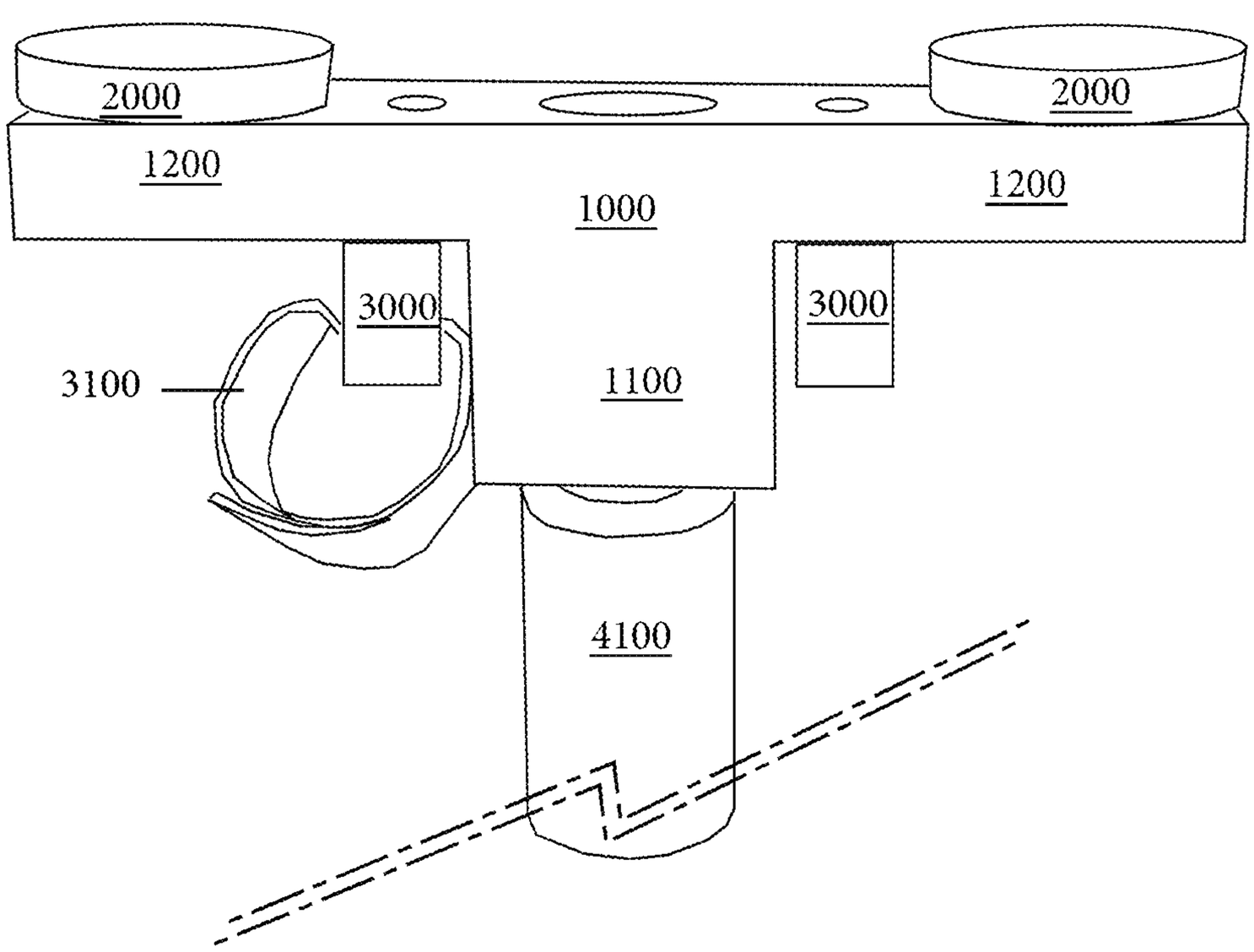


FIG. 8

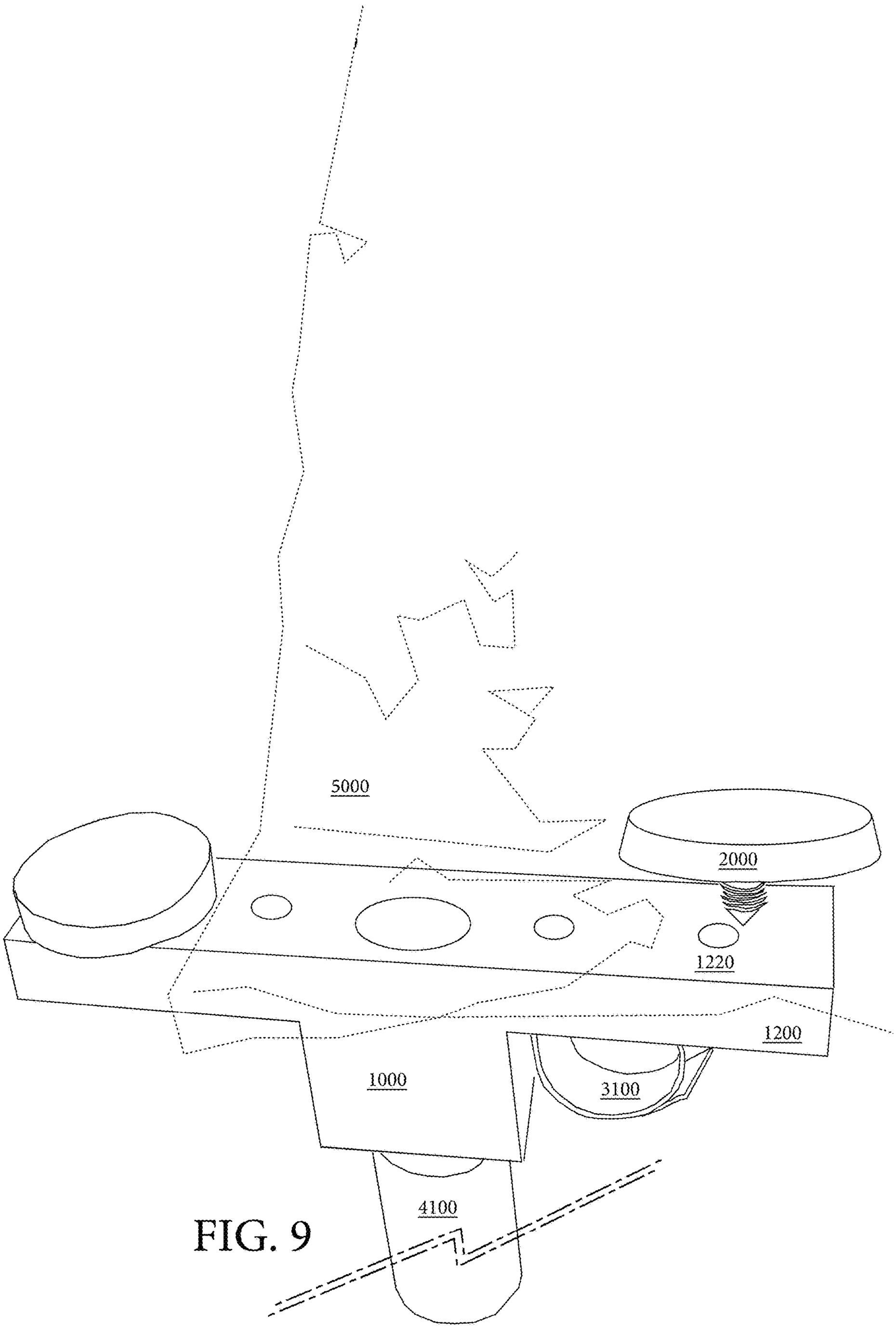


FIG. 9

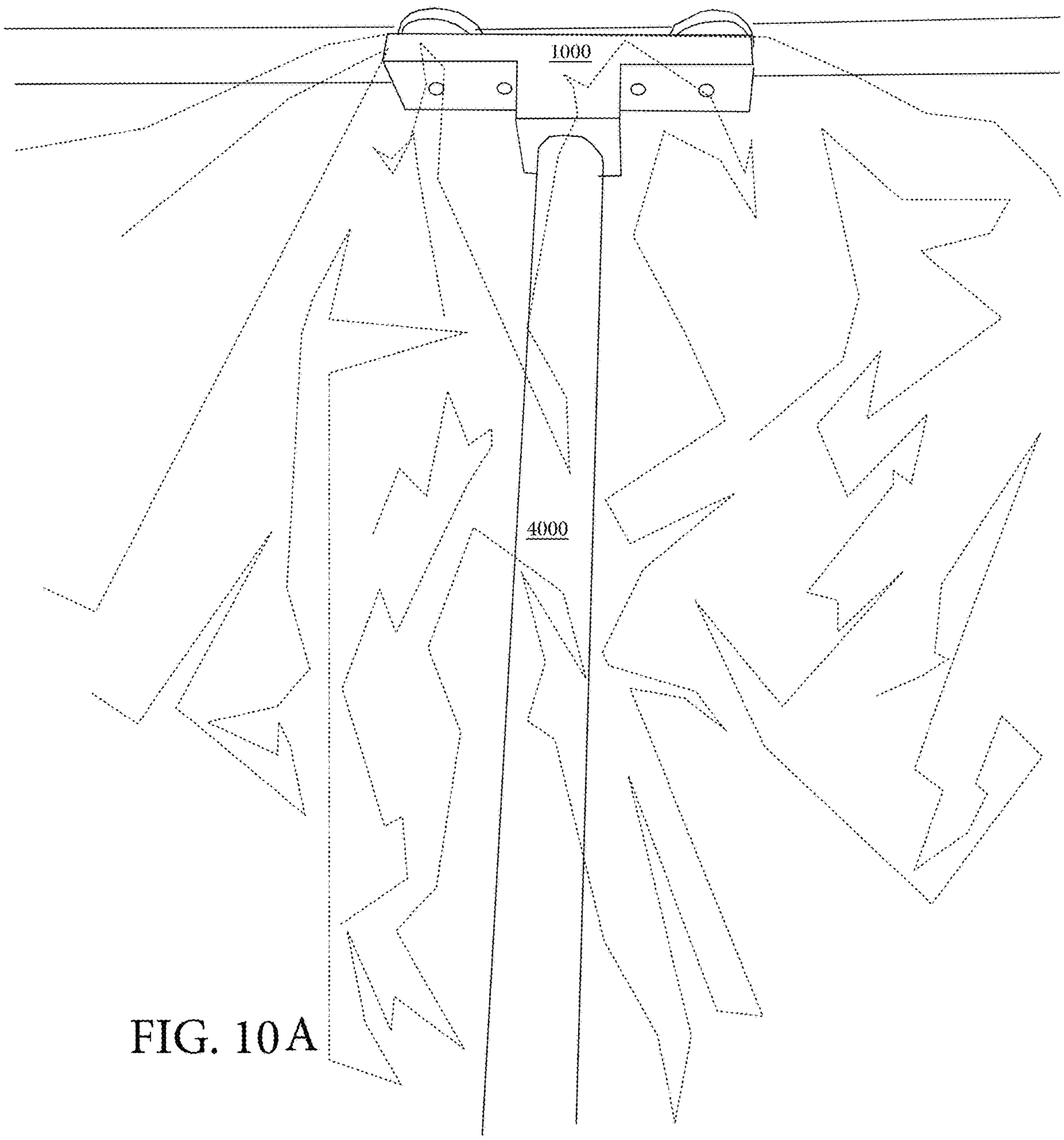


FIG. 10A

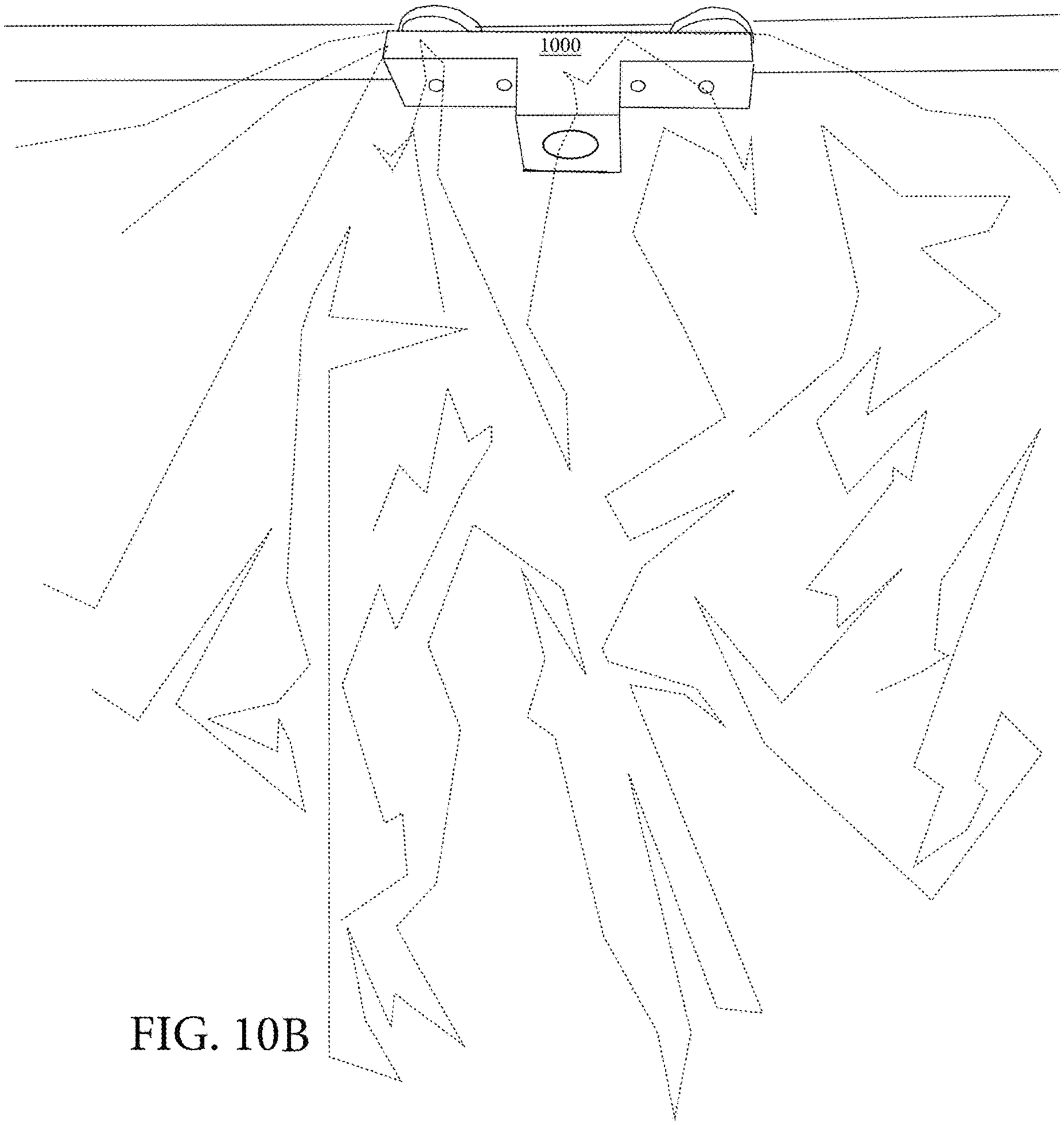


FIG. 10B

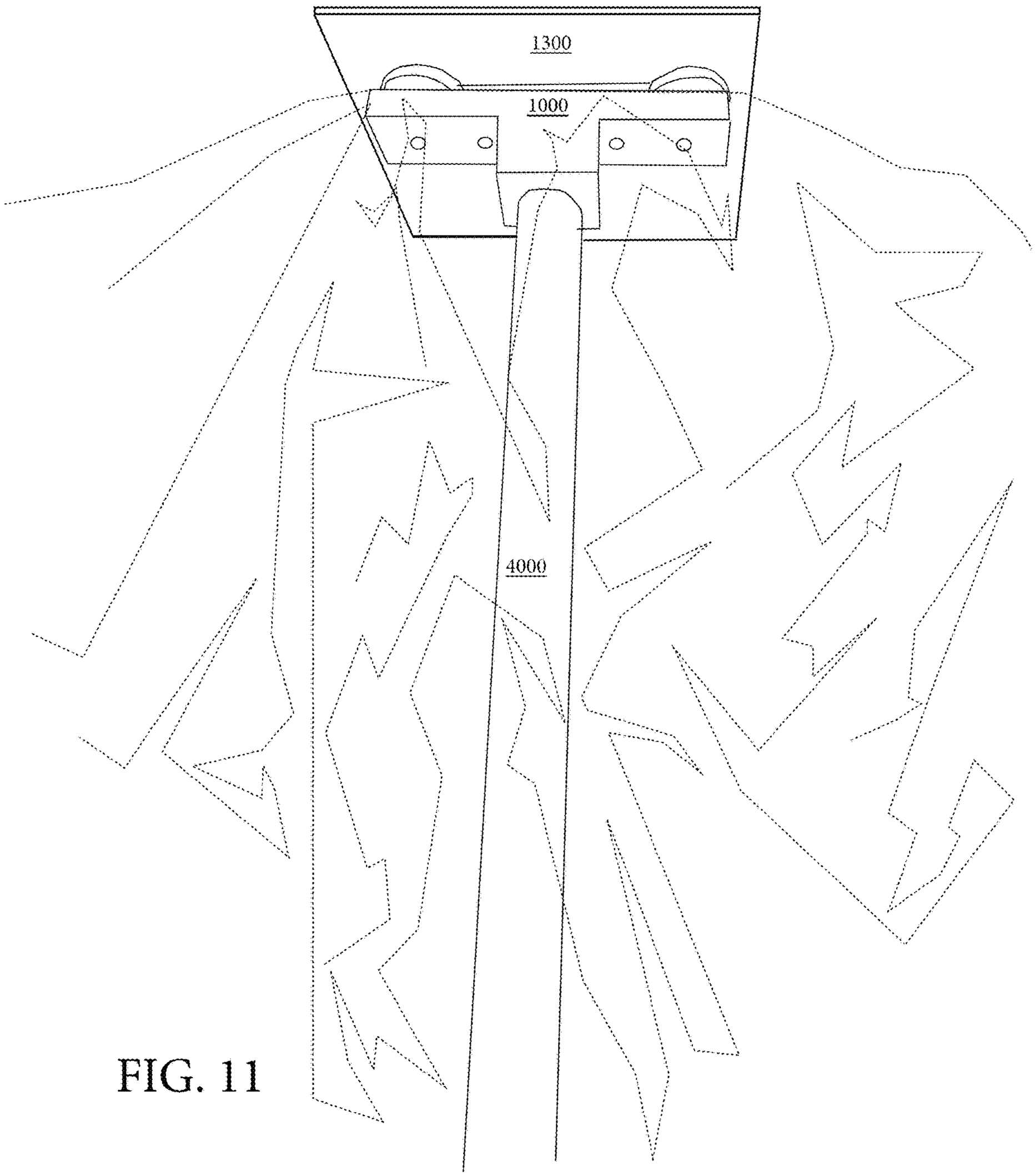


FIG. 11

PARTITION OR BARRIER SYSTEM

CROSS-REFERENCE TO RELATED APPLICATIONS

Not applicable.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

Not applicable.

THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT

Not applicable.

REFERENCE TO AN APPENDIX SUBMITTED ON A COMPACT DISC AND INCORPORATED BY REFERENCE OF THE MATERIAL ON THE COMPACT DISC

Not applicable.

STATEMENT REGARDING PRIOR DISCLOSURES BY THE INVENTOR OR A JOINT INVENTOR

Reserved for a later date, if necessary.

BACKGROUND OF THE INVENTION

Field of Invention

The disclosed subject matter is in the field of partitioning mounting systems and devices for mounting or otherwise establishing a partition.

Background of the Invention

U.S. Pat. No. 7,658,219 (the '219 patent (incorporated by reference in its entirety)) discloses a partition mount with integral plunger assembly. According to that document, the disclosed device upholds a curtain or plastic sheet between a ceiling and a floor of a room. In one example depicted in FIGS. 11A through 11E of the '219 patent, the disclosed device essentially connects the top of a curtain or plastic sheet to the top or head of an extension pole so that the butt of the pole can be pressed into the floor while the top of the pole holds the sheet upright against the ceiling or other overhead structure. In construction zones, two or more partition devices can be used to establish a partition system or framework that is useful for protecting a clean area from a work area or construction zone i.e., via isolating the clean area of a building or room from dust, noise, light, odors and like nuisances generated in the work area or construction zone.

Unfortunately, the device disclosed by the '219 patent is suitable for establishing a partition framework or system in all rooms or buildings. In particular, some rooms have paneled ceilings where the force of the extension pole pushing upward on curtain or sheet against the ceiling is high enough to displace the ceiling's panel. When this happens, the pole can tip over and cause the partition to fail. Accordingly, a need exists for devices that are suitable for establishing a partition framework or system in rooms or buildings with paneled or otherwise unsupported ceilings.

SUMMARY OF THE INVENTION

In view of the foregoing, an object of this specification is to disclose a T-block attachment with a magnetized bolt for (first) securing a plastic sheet or curtain to the mount and (second) securing the mount to a metallic grid of a paneled sealing. In a first embodiment, the T-block features a stem and two arms wherein the stem includes a pole receptacle and each arm includes both a clip receptacle and a bolt receptacle. In operation: to Step **1**-*a* standard broom pole or other extendable pole with a threaded tip may be coupled to the stem of the T-block partition mount; Step **2**—a plastic sheet or curtain may be secured to the T-block partition mount via puncturing the sheet material with the bolt of a magnet bolt and then coupling the bolt to the bolt receptacle of the T-block partition mount such is that the sheet material is sandwiched between an arm of the T-block partition mount and the magnet of the magnetic bolt; and, Step **3**—the T-block partition mount may be secured to a metallic structure of a ceiling such that the pole is extended downward from the sealing while the plastic sheet or curtain is secured to the ceiling via the magnets of the mount. In an alternative embodiment, Step **3** may involve securing the mount to a foot and then pressing the foot against the ceiling via a compression spring such that the pole is upright between the floor and the ceiling while the plastic sheet or curtain is secured to the ceiling beneath the foot. Suitably, the block may feature a wire clip for securing wires to the ceiling structure via the magnetic bolts.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

Other objectives of the disclosure will become apparent to those skilled in the art once the invention has been shown and described. The manner in which these objectives and other desirable characteristics can be obtained is explained in the following description and attached figures in which:

FIG. **1**A is a bottom perspective view of a T-block partition mount **1000**;

FIG. **1**B is another bottom perspective view of a T-block partition mount **1000** with rounded or truncated corners and edges;

FIG. **2**A is a front view of the T-block partition mount **1000**;

FIG. **2**B is a dimensional front view of the T-block partition mount **1000**;

FIG. **3**A is a bottom view of the T-bock partition mount **1000**;

FIG. **3**B is a dimensional bottom view of the T-bock partition mount **1000**;

FIG. **4** is a top view of the T-block partition mount;

FIG. **5** is a perspective view of a magnet bolt **2000**;

FIG. **6** is a perspective view of a wire clip **3000**;

FIG. **7** is a perspective view of an upright support **4000**;

FIG. **8** is an assembled view of the T-block partition mount;

FIG. **9** is an environmental or contextual view of the T-block partition mount **1000** being secured to a plastic sheet or curtain **5000** via the magnet bolt **2000**;

FIG. **10**A is an environmental or contextual view of the T-block partition mount **1000** hanging a plastic sheet or curtain **5000** to a metal cross-bar of a grid system of a paneled ceiling;

FIG. **10**B is another environmental or contextual view of the T-block partition mount **1000** hanging a plastic sheet or curtain **5000** to a metal cross-bar of a grid system of a paneled ceiling; and,

FIG. **11** is an environmental or contextual view of the T-block partition mount **1000** hanging a plastic sheet or curtain **5000** to a nonmetal ceiling or is other non-metal overhead structure.

In the drawings, the following reference numerals are and indication of the corresponding component or part of the disclosed device:

1000—T-block partition mount
- **1100**—stem
  - **1110**—pole receptacle
- **1200**—arm
  - **1210**—clip receptacle
  - **1220**—bolt receptacle
- **1300**—foot

2000—magnet bolt
- **2100**—magnet
- **2200**—bolt

3000—wire clip
- **3100**—Velcro® strap

4000—upright support pole
- **4100**—pole
  - **4110**—threads
- **4200**—plunger
  - **4210**—suction cup
  - **4220**—sleeve
  - **4230**—spring

5000—plastic sheet or curtain.

It is to be noted, however, that the appended figures illustrate only typical embodiments of this invention and are therefore not to be considered limiting of its scope, for the invention may admit to other equally effective embodiments that will be appreciated by those reasonably skilled in the relevant arts. Also, figures are not necessarily made to scale but are representative.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Disclosed is a T-block partition mount with a magnetized bolt for (first) securing a plastic sheet or curtain to the mount and (second) securing the mount to a metallic grid of a paneled sealing. Suitably, the block may feature a wire clip for securing wires to the ceiling structure via the magnetic bolts. Other details of the disclosed T-block partition mount are to described below with reference to the attached figures.

FIG. **1**A is a bottom perspective view of a T-block partition mount **1000**. FIG. **2**A is a front view of the T-block partition mount **1000**. FIG. **3**A is a bottom view of the T-bock partition mount **1000**. FIG. **4** is a top view of the T-block partition mount. As shown, the T-block is generally defined by is a T-shaped structure with a stem **1100** and two arms **1200**. Suitably, each arm **1200** includes a bolt receptacle **1220** and a clip receptacle **1210** that have female or internal threads for receipt of a bolt capable of affixing a magnet or clip to the arm **1200**. See e.g., FIGS. **5**,**6** and **8** discussed in greater detail below. In one embodiment, the stem **1100** features a pole receptacle **1110** that preferably includes female or internal threads capable of cooperating with the male or external threads of a standard broom pole or extension pole (not shown). Preferably, the threads of the pole receptacle are ACME (Standard) Threads or European Thread, which are typic of nearly all broom or brush pole ends. In the most preferred embodiment, ACME threads are provided the receptacle **1110** for use on any standard extension pole with a standard male threaded end (e.g., ¾ inch in diameter with 5 threads per inch). Threaded block attachment to accommodate most threaded handles for extension poles. This universal threaded block size ( ) allows for attachment of different attachments for the to purpose of affixing poly sheeting or other suitable materials for construction of temporary or semi-permanent barriers in maintaining dust barriers.

FIG. **1**B is another bottom perspective view of a T-block partition mount **1000** with rounded or truncated corners and edges. FIG. **2**B is a dimensional front view of the T-block partition mount **1000**. FIG. **3**B is a is dimensional bottom view of the T-bock partition mount **1000**. Suitably, the T-block partition mount is fabricated as an integral unity out of 6061 aluminum. Suitably, the edges and corners of the T-block partition mount **1000** are suitably rounded or truncated to that the edges and corners are not sharp and pointed.

FIG. **5** is a perspective view of a magnet bolt **2000**. As shown, the magnet bolt features a magnet **2100** and a bolt **2200** with a sharp point. As discussed in greater detail below, the bolt **200** may be used to puncture a plastic sheet or curtain so that the plastic sheet or curtain may be secured to the T-block partition mount **1000** via securing the bolt through the sheet or curtain and into the bolt receptacle. See e.g. FIGS. **8** through **11**. In a preferred embodiment, the whole upper surface of the bolt **2000** is magnetized or is a magnet with sufficient magnetic force to hold the plastic sheet or curtain overhead. In a preferred embodiment the magnet is to neodymium.

FIG. **6** is a perspective view of a wire clip **3000**. As shown, the wire clip **3000** may be secured to the clip receptacle **1210** of each arm **1200** of a T-block partition mount (see FIG. **8**). Suitably, the wire clip **3000** may be used to secure wires to the mount **1000** either via providing the wires is through the clip **3000** directly or via use of a Velcro® strap (i.e., strap with hook and loop connectors). See, e.g., FIGS. **8** and **9** (wires not shown).

FIG. **7** is a perspective view of an upright support **4000**. As shown, the upright support pole **4000** comprises a pole **4100** with male threads **4110** at the tip and a butt that has been provided into a sleeve **4220** of a plunger **4200**. Suitably, the sleeve **4220** (A) contains a spring **4230** for biasing the pole **4100** toward the outside of the sleeve **4220** and (B) is provided with a suction cup **4210** for securing the sleeve **42200** to the ground or other suctionable surface.

FIG. **8** is an assembled view of the T-block partition mount. As shown a pole **4100** is provided to the pole receptacle **1110** of the stem **1000**. As is further shown, a wire clip **3000** with a Velcro® strap is proved to the clip receptacle **1210** of the arm **1220**, and magnet bolts **2000** are provided to the bolt receptacle. Suitably, a fully assembled T-block partition mount **1000** is defined in the depicted configuration.

FIG. **9** is an environmental or contextual view of the T-block partition mount **1000** being secured to a plastic sheet or curtain **5000** via the magnet bolt **2000**. As shown, a plastic sheet or curtain **5000** may be secured to the T-block partition mount **1000** via puncturing the sheet material **5000** with the sharp tip of the bolt **2200** of a magnet bolt **2000** and then coupling the is bolt **2200** to the bolt receptacle **1220** of the T-block partition mount's arm **1200**. In a suitable assembly, the sheet material **5000** is sandwiched between an arm **1200** of the T-block partition mount **1000** and the magnet **2100** of the magnetic bolt **2000**. See, e.g., FIG. **10**A-**11**.

In operation: Step **1**-*a* standard broom pole **4100** or other extendable pole with a threaded tip **4110** may be coupled to

the stem **1100** of the T-block partition mount **1000**; Step **2**—a plastic sheet or curtain **5000** may be secured to the T-block partition mount **1000** via puncturing the sheet material **5000** with the bolt **2200** of a magnet bolt **2000** and then coupling the bolt **2200** to the bolt receptacle **1220** of the T-block partition mount **1000** such that the sheet material **5000** is sandwiched between an arm **1200** of the T-block partition mount **1000** and the magnet **2100** of the magnetic bolt **2000**; and, Step **3**—the T-block partition mount **1000** may be secured to a metallic structure **6000** of a ceiling such that the pole **4100** is extended downward from the sealing while the plastic sheet **5000** or curtain to is secured to the ceiling via the magnets **2100** of the mount. FIG. **10**A is an environmental or contextual view of the T-block partition mount **1000** hanging a plastic sheet or curtain **5000** to a metal cross-bar of a grid system of a paneled ceiling. FIG. **10**B is another environmental or contextual view of the T-block partition mount **1000** hanging a plastic sheet is or curtain **5000** to a metal cross-bar of a grid system of a paneled ceiling. As shown in FIGS. **10**A-**10**B, the pole **4100** may be removed from the mount **1000** after the mount **1000** has been secured to the metallic grid of the ceiling panel.

In an alternative embodiment, Step **3** may involve securing the mount to a foot and then pressing the foot against the ceiling via a compression spring such that the pole is upright between the floor and the ceiling while the plastic sheet or curtain is secured to the ceiling beneath the foot. FIG. **11** is an environmental or contextual view of the T-block partition mount **1000** hanging a plastic sheet or curtain **5000** to a nonmetal ceiling or other non-metal overhead structure. FIG. **7** is a perspective view of an upright support **4000**. As taught by FIGS. **11** and **7**, a partition framework may be established in a room with does not have a ceiling with a metallic structure via applying a foot **1300** to the mount **1000** and then pressing the foot **1300** against the ceiling via a compression spring **2300**. In a preferred embodiment, the pole **4100** may be suitably anchored to the ground via the suction cup **4210**.

Although the method and apparatus is described above in terms of various exemplary embodiments and implementations, it should be understood that the various features, aspects and functionality described in one or more of the individual embodiments are not limited in their applicability to the particular embodiment with which they are described, but instead might be applied, alone or in various combinations, to one or more of the other embodiments of the disclosed method and apparatus, whether or not such embodiments are described and whether or not such features are presented as being a part of a described embodiment. Thus, the breadth and scope of the claimed invention should not be limited by any of the above-described embodiments.

Terms and phrases used in this document, and variations thereof, unless otherwise expressly stated, should be construed as open-ended as opposed to limiting. As examples of the foregoing: the term "including" should be read as meaning "including, without limitation" or the like, the term "example" is used to provide exemplary instances of the item in discussion, not an exhaustive or limiting list thereof, the terms "a" or "an" should be read as meaning "at least one," "one or more," or the like, and adjectives such as "conventional," "traditional," "normal," "standard," "known" and terms of similar meaning should not be construed as limiting the item described to a given time period or to an item available as of a given time, but instead should be read to encompass conventional, traditional, normal, or standard technologies that might be available or known now or at any time in the future. Likewise, where this document refers to technologies that would be apparent or known to one of ordinary skill in the art, such technologies encompass those apparent or known to the skilled artisan now or at any time in the future.

The presence of broadening words and phrases such as "one or more," "at least," "but not limited to" or other like phrases in some instances shall not be read to mean that the narrower case is intended or required in instances where such broadening phrases might be absent. The use of the term "assembly" does not imply that the components or functionality described or claimed as part of the module are all configured in a common package. Indeed, any or all of the various components of a module, whether control logic or other components, might be combined in a single package or separately maintained and might further be distributed across multiple locations.

Additionally, the various embodiments set forth herein are described in terms of exemplary block diagrams, flow charts and other illustrations. As will become apparent to one of ordinary skill in the art after reading this document, the illustrated embodiments and their various alternatives might is be implemented without confinement to the illustrated examples. For example, block diagrams and their accompanying description should not be construed as mandating a particular architecture or configuration.

All original claims submitted with this specification are incorporated by reference in their entirety as if fully set forth herein.

I claim:

1. A method of establishing a partition comprising the steps of:

coupling a standard broom pole or other extendable pole with a threaded tip to a stem of a T-block partition mount;

securing a plastic sheet or curtain to the T-block partition mount via puncturing the plastic sheet or curtain with a bolt of a magnet bolt and then coupling the bolt to a bolt receptacle of the T-block partition mount such that the plastic sheet or curtain is sandwiched between an arm of the T-block partition mount and a magnet of the magnetic bolt;

securing the T-block partition mount to a metallic structure of a ceiling such that the pole is extended downward from the ceiling while the plastic sheet or curtain is secured adjacent to the ceiling via the magnet of the magnetic bolt; and,

uncoupling the standard broom pole or other extendable pole with the threaded tip from the stem of the T-block partition mount while the plastic sheet or curtain remains secured adjacent to the ceiling via the magnets of the mount.

2. The method of claim **1** further comprising the step of securing a wire to the T-block partition mount via a clip that was secured to a clip receptacle.

* * * * *