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(54) **PORTABLE BARRICADE SYSTEM AND METHOD OF USING SAME**

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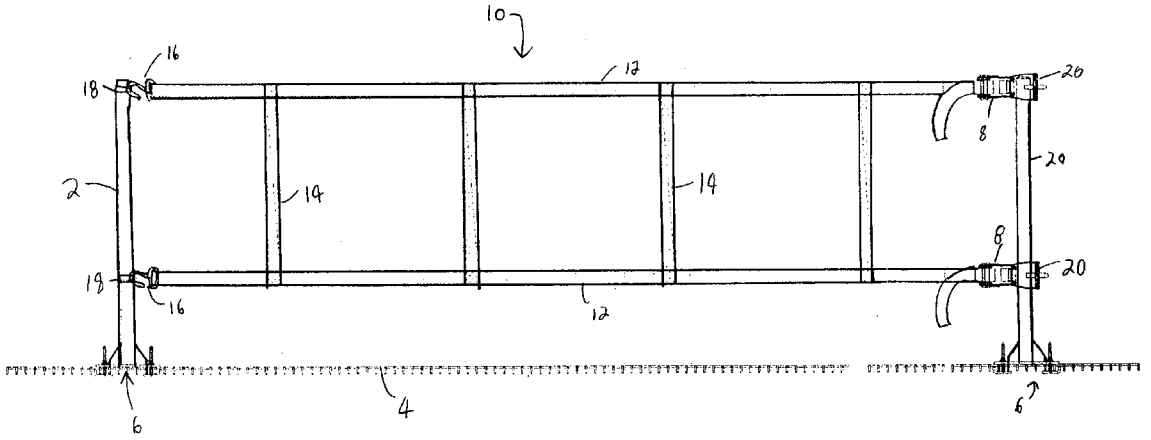
(57) **ABSTRACT**

A portable safety barricade meeting known safety standards and having a plurality of horizontally attached straps and vertically attached straps. The horizontal straps are preferably attached to support poles or other structural members and then ratcheted to a desired tension. The vertical straps are preferably attached between and in a perpendicular fashion to the horizontal straps. Preferably, a ratcheting device is attached at one end of the horizontal straps to allow tensioning of the barricade. The barricade may be attached to poles which can be attached to a grating or to another surface as desired to maintain a safety barricade. The barricade is easy to assemble, is portable and meets safety requirements of offshore rigs, as well as construction sites in order to keep machinery and personnel out of harms way.



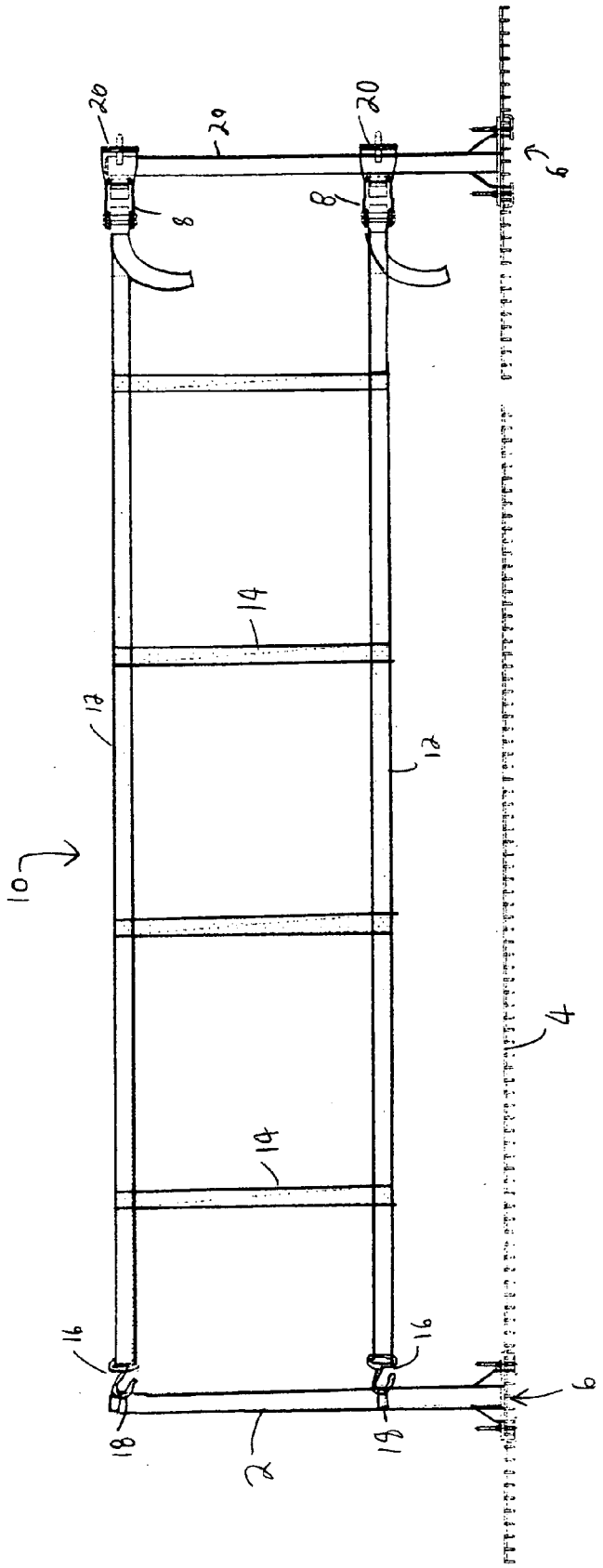


FIG. 1A

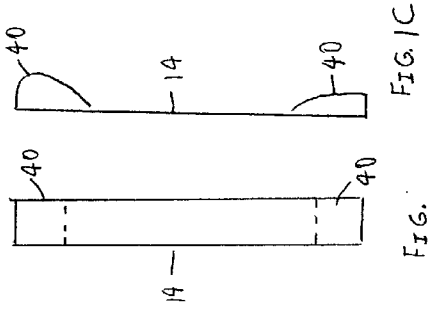


FIG. 1B

FIG. 1C

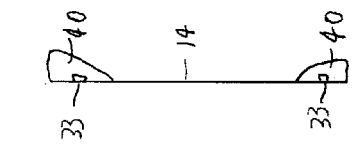


FIG. 1F

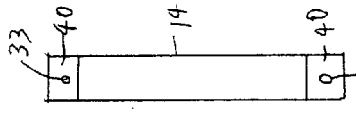


FIG. 1E

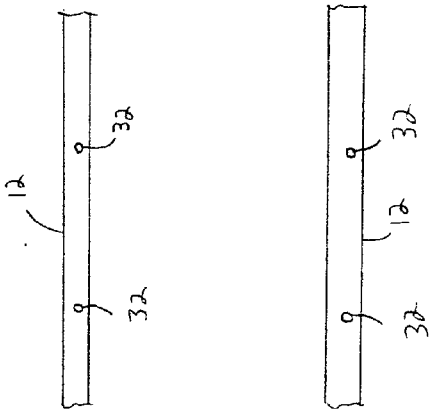


FIG. 1D

FIG. 2A

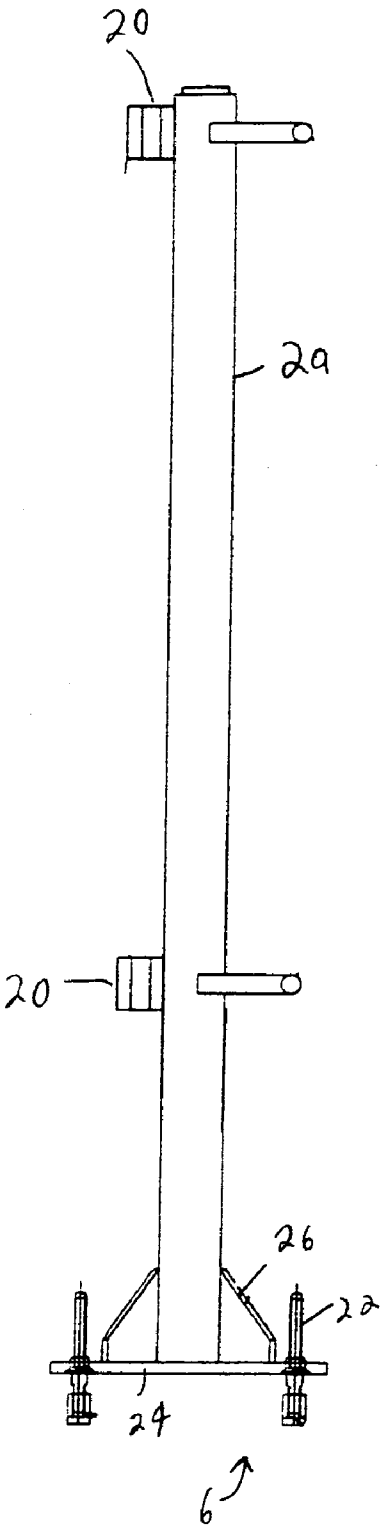
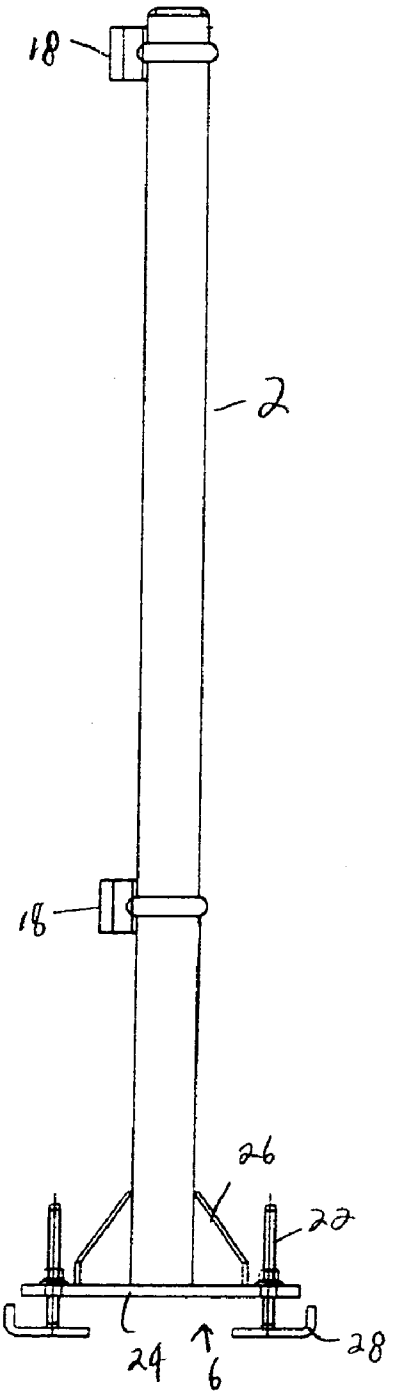


FIG. 2B



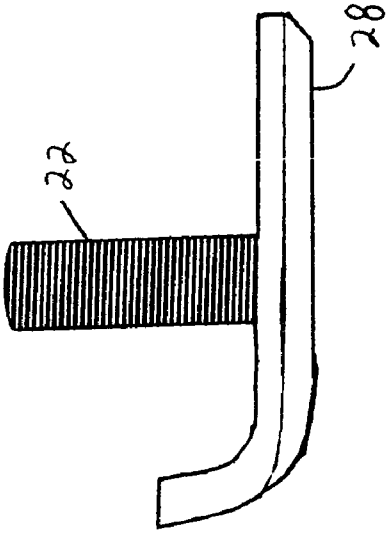


FIG. 4

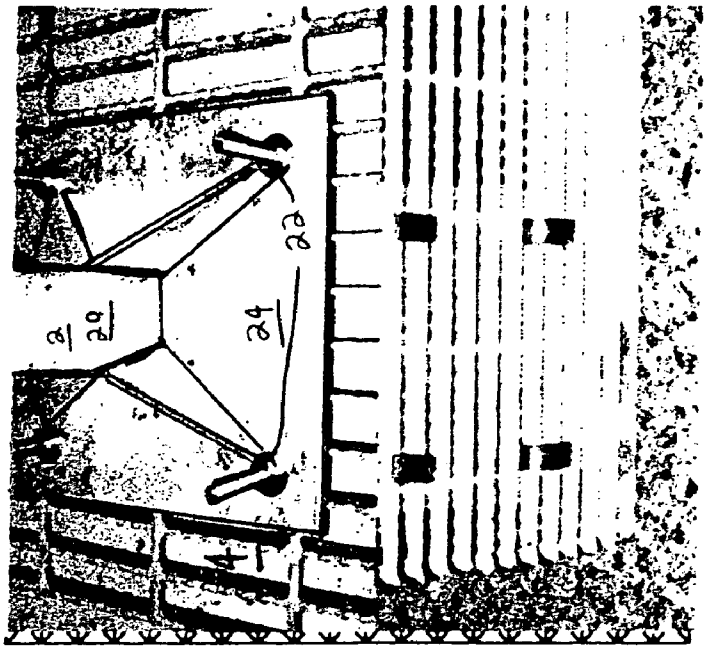


FIG. 3

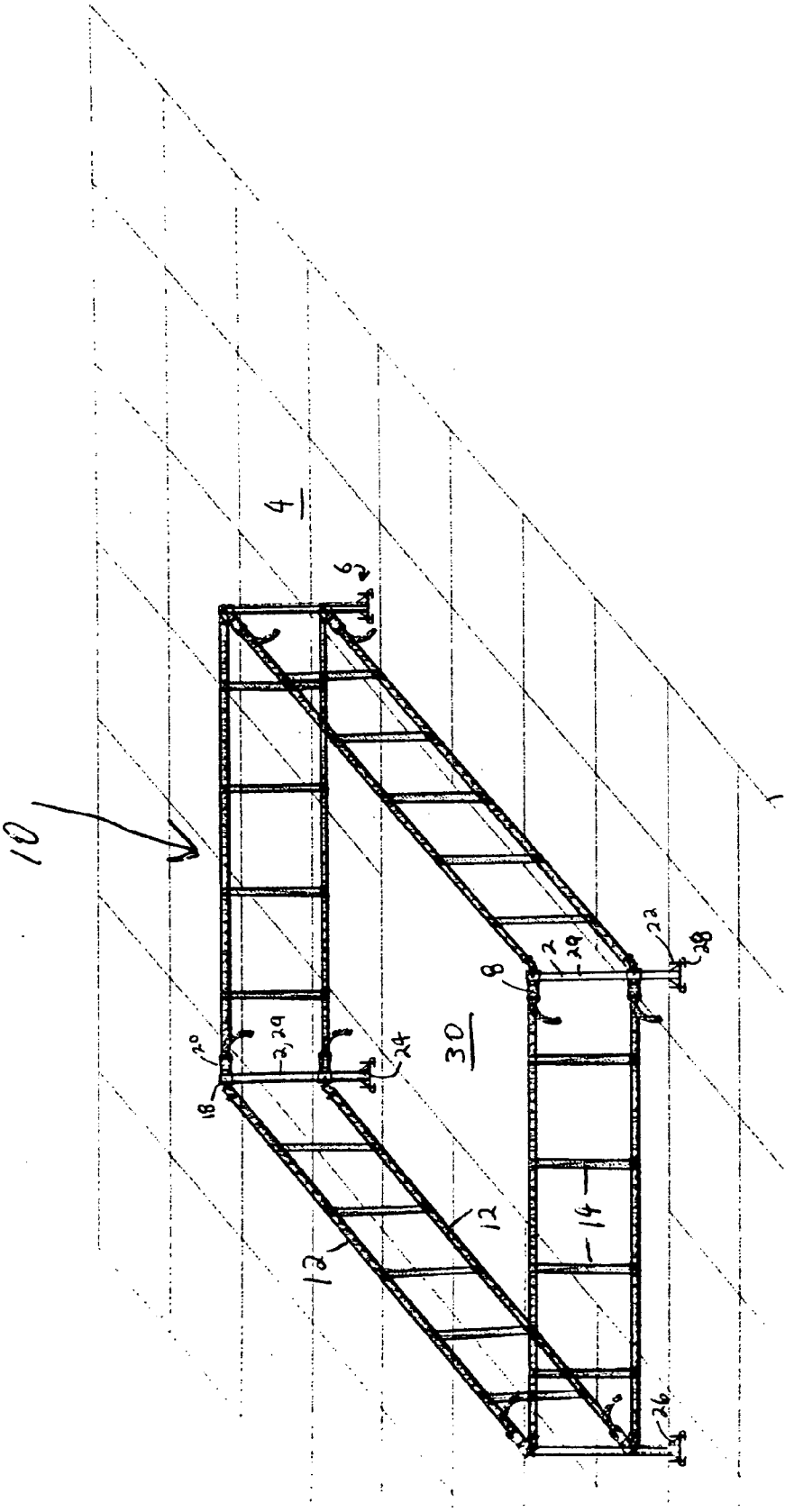


FIG. 5

PORTABLE BARRICADE SYSTEM AND METHOD OF USING SAME

TECHNICAL FIELD

[0001] This invention relates to apparatuses and methods for barricades or barricade systems. More specifically, the present invention relates to a portable barricade system and method, which is easy to erect and complies in particular with federal guidelines for offshore barriers or barricade systems.

BRIEF DESCRIPTION OF DRAWINGS

[0002] For a further understanding of the nature and objects of the present invention, reference should be had to the following detailed description, taken in conjunction with the accompanying drawings, in which like elements are given the same or analogous reference numbers.

[0003] FIG. **1**A illustrates a side elevated view of an erected barricade system attached to poles, according to the present invention;

[0004] FIG. **1**B illustrates a front elevated view of a strap having pockets for engagement, according to the present invention;

[0005] FIG. **1**C illustrates a side elevated view of the strap illustrated in FIG. **1**B, according to the present invention;

[0006] FIG. **1**D illustrates a partial front elevated view of a strap having fasteners, according to the present invention;

[0007] FIG. **1**E illustrates a front elevated view of a strap having pockets and fasteners for engagement, according to the present invention;

[0008] FIG. **1**F illustrates a side elevated view of the strap illustrated in FIG. **1**E, according to the present invention;

[0009] FIG. **2**A illustrates side elevated view of a typical pole used for attachment of the barricade system according to the present invention;

[0010] FIG. **2**B illustrates side elevated view of a typical pole used for attachment of the barricade system according to the present invention;

[0011] FIG. **3** illustrates a pictorial view of the pole stand illustrating lock down system, in accordance with the present invention;

[0012] FIG. **4** is a side elevated view of the locking system, bolt, and bracket in accordance with the present invention; and

[0013] FIG. **5** is an isometric view of a barricade system forming a perimeter around an area to be avoided in accordance with the present invention.

DETAILED DESCRIPTION OF EMBODIMENTS OF THE INVENTION

[0014] It is well known in oil field industry, the building industry, and the construction industry that any holes, excavation, missing grating, missing rails, or the like in any area in which workers or other pedestrians pass near require some type of barrier system to protect the pedestrians, workers, or any other people traveling in such an area. Typically these barriers will consist of some type of fencing material either ridged or semi ridged or even a plastic material. These barriers usually consist of at least some bright colored elements, which may or may not have caution wording on them so as to warn any passerbys of the potential danger. While these warning signs and bright colors are typically used to deter unauthorized or warn authorized persons of potential danger when passing through without cautions, many typically lack the strength or are so assembled to lack the strength to actually prevent a person who may fall or trip from passing through or breaking through the barricaded zone. This is particularly true in the offshore industry and offshore rigs where often work is performed to repair or modify some part of the structure to enhance the drilling or production operations. Many times when some dangerous area is created due to a modification or due to some damage to the structure, a barricade or the supplies for a barricade may not be readily available. In that case, typically a "homemade" barricade is erected which may be made of any material readily available, such as but not limited to, previously used and/or damaged barricades. These "homemade" barricades, although they may have warning signs and bright colors, may detour the people who are used to "temporary" or "homemade" barricades but the unwary pedestrian or worker concentrating on other things may walk into such a barricade, pass or break through the barricade, thus entering the danger zone and injuring or killing themselves. This is particularly true on offshore rigs where missing hand rails or holes in gratings create a fall hazard to the rig personal, which in the past years has resulted in a very large number of fatalities. Therefore, the art needs a stable, simple to erect, yet strong barricade system to prevent the scores of lives lost in the oil and gas, petrochemical, and construction industries due to falls from lack of barricades or lack of sufficiently strong barricades. It should be appreciated by those in the art that this barricade, although very adaptable to the oil and gas industry can also be used in a variety of industries including any type of construction as well as pedestrian barricades during parades or other events, barricades in ski areas, and in any other area where a barricade may be sought for in order to either control crowds or to prevent entry into unauthorized areas.

[0015] It is further well known in the art that safety barriers typically have to conform to certain safety regulations, such as but not limited to Federal OSHA standards (such as but not limited to Section 1910) or other national regulations, state regulations, local regulations or regulations maintained by owners of properties or structures. Further those in the art should understand that many of the "homemade" safety barriers do not meet any of the standards, which encompass safety barriers. These "homemade" barricades may even create a substantially more dangerous situation in that these barricades cannot sustain the loads required, and therefore personal and machinery which come in contact with these barricades simply break through these barricades, causing loss of equipment, serious injuries, and even death. The safety barrier described herein is designed to meet or exceed federal, state and local regulations and thus prevent damage to equipment, injuries, and even death.

[0016] FIG. **1**A illustrates an embodiment of the barrier system **10**. In this embodiment, two substantially horizontally positioned straps **12** extend between two poles **2**, **2***a* and a plurality of straps **14** are positioned/attached between straps **12** so as to be oriented in a substantially perpendicular relationship to straps **12**. Preferably barrier system **10** contains at least one or plurality of poles **2**, **2***a*. It should be understood that barrier **10** may have any number of poles **2**, **2***a* depending on the distance that barrier **10** must span. Further, one or both ends of the barrier **10** may be attached to existing structure such as, but not limited to, intact railings, intact walls, supports, or other like structural members. In one embodiment there are two poles **2***a*. One pole **2** preferably has at least two brackets **18**. If only two brackets **18** are used then preferably

one bracket **18** is towards the top of pole **2** and one bracket **18** is towards the bottom of pole **2**. It should be understood that the location of the top and bottom bracket **18** define the height or vertical span of the barrier **10**. Brackets **18** are preferably adapted to receive a hook or other latching devices of the main strap **12**. The main straps **12** preferably include an upper strap and a lower strap both of which can be attached to a bracket **18**. It should be understood that pole **2** may have more then two brackets **18**, such as top, bottom, middle depending on the strength desired for the barrier. Thus, there are envisioned embodiments having more than two horizontal straps **12**. Further, barrier **10** may be designed to have a strap **12** substantially in contact with the ground, floor, or grating **4** to which barrier **12** is attached. Typically, such a bottom strap **12**, which is substantially in contact with the ground is referred to as a "toe" strap. The purpose of a "toe" strap is typically to keep items or personnel from rolling or crawling underneath of safety barrier **10**. Thus, if a "toe" strap is desired, the safety barrier **10** may comprise more than two straps **12** or the bottom strap **12**, and corresponding fastener connections **18**, **20** may be located at a point so as to allow the bottom strap **12** to substantially contact the bottom supporting surface or grating **4**.

[0017] Strap **12** preferably has a hook or other fasteners **16** at one end and a ratchet **8** at the other end. It should be appreciated that the ratchet **8** can be positioned in the middle or in any desired position along strap **12**. It should be appreciated that typically, a conventional strap and ratchet arrangement comprises straps on each side of the ratchet with typically one side being relatively short and the other side being adjustable and comprising the majority of the strap length. Thus, it is foreseeable that fastener/connector **16** may be on each end of strap **12** and fastener connection **20**, **18** could be of a substantially same configuration. As described above, one end of strap **12**, which has the fastener **16** is attached to pole **2** at bracket **18** and the ratchet **8** is attached to a second pole **2***a* having a fastener connection **20**. Fastener connection **20** is configured to allow attachment of ratchet **8**. It should be appreciated that the attachment methods between connections **16** and **18** and **8** and **20** can vary greatly. Most commercially available fasteners and connectors may be used and should not be viewed as a limitation therein. It should be further understood that both ends of the straps **12** may employ a rachet **8** or any other connector that can be easily tightened. Further, when attaching the barrier **10** to an existing structural member, fasteners/connectors **18** and **20** may be attached to the structural members or the straps **12** may be attached thereto by any conventional manner.

[0018] Preferably strap **12** is first attached at fastener **16** and **18** and then attached to fastener **20**. Ratchet **8** can then be adjusted to tighten the strap **12** to a desired tension. However, it should be appreciated that either end can be connected first and as such the order of connection should not be viewed as a limitation thereof. Stretched between the two straps **12** can be a plurality of straps **14** arranged in a substantially perpendicular relationship between the two straps **12**. It may be desirable to preassemble certain lengths of barrier **10** with the straps **12** and **14** already attached with some predetermined spacing between the straps **14**. It should be understood, by those in the art, that straps **12** and **14** may be manufactured of material similar to a seat belt, another cloth material, a woven type of material, synthetic materials, or any combination thereof that has a desired strength or availability in order to prevent persons and/or equipment from passing therethrough.

[0019] Further, it should be understood that the term strap or straps (such as **12**, **14**), as used herein, is defined to include any strap, rope, line, cable, or the like. Similarly, any metallic, plastic, composite material, or combinations thereof could be a suitable material for the straps **12**, **14**. Thus, any metallic banding, strapping, cables, ropes, chains, and the like could be substituted for straps **12**, **14** and should not be viewed as a limitation thereof. When utilizing metallic banding, strapping, cables and the like, it should be appreciated that any fastening, connectors, ratcheting devices, or tensioning devices may be modified to better adapt and/or function in connection to said metallic banding, strapping, cables and the like. It should be appreciated that such connectors, fasteners, and tensioners may be commercially available and should not be viewed as a limitation thereof.

[0020] The number of straps **14** stretched between the upper and lower strap **12** may also be a factor of design, preference, regulations or other guidelines, and desired strength of the barrier. The straps **14** may be arranged with any desired space in between such as to prevent passage of persons or certain size equipment. Straps **14** may be arranged so as to be substantially side by side and provide no space between the straps **14**. It should be further understood that the straps **14** may have intermediate pockets or attachments so if more then one upper and lower strap **12** is used they can also be engaged with perpendicular straps **14**. It should be understood that barriers may also be formed by crossing straps **14** or otherwise arranging straps **14** in a non-perpendicular manner and thus any alternative arrangement or angular relationship between straps **12** and straps **14** should not be seen as a limitation thereof.

[0021] It should be appreciated that both straps **12** and **14** may be color coded for safety or for other types of barricades, they may also have writing on them, such as but not limited to, "caution", "do not enter", or the like. The straps **14** may be attached to straps **12** during erection or may come preassembled in order to easily stretch the straps after the ratcheting. Typically if straps **14** are preassembled to straps **12** there is a predetermined height for the barrier, this height may be determined by individual sites or it may be included in various local, state and federal regulations.

[0022] It should be appreciated that more then two straps **12** may be used and a woven type of barrier may be created, thus being able to resist much higher loads or personnel passing through, thus safety barrier **10** can also be used to stop, slow down, or deflect vehicles and maybe used in airport runways, highway dividers, crowd control, ski run barricades, and for similar applications. It should be further understood that even though the preferred embodiments show the ratchet device **8** only on the horizontal straps **12**, such device **8** or other tensioning devices can be incorporated on the vertical straps **14** or on any combination of straps **12** and straps **14**.

[0023] FIG. **1**A further shows the barrier **10** mounted to a grate **4**, it should be appreciated that on drilling rigs typically the flooring is of a grating material; however, it should be appreciated that barrier **14** may be mounted on any type of surface, whether it be grating, solid concrete, ground, or any other surfaces. In an embodiment having a grating surface, the poles **2**, **2***a* are preferably mounted as generally shown by bracket **6**.

[0024] FIGS. **1**B-**1**F illustrate embodiments of strap **14** and some relationships with straps **12**. As illustrated in FIGS. **1**B and **1**C, strap **14** can be configured with pockets **40** at each end so as to allow strap **12** to slip through said pockets or be

configured for other conventional methods of attachment to strap **12** at both ends. It should be appreciated that if strap **14** is configured with pockets **40**, it may be desirable to include an additional fastener **33** in order to keep strap **14** in a desired location with respect to straps **12**.

[0025] FIG. **1**D illustrates an embodiment of straps **12** wherein a fastener **32**, such as but not limited to a snap, is attached to straps **12** at some desired spacing interval. FIGS. **1**E and **1**F illustrate a front view and side view, respectively, of an embodiment of strap **14** having a fastener **33** inside pocket **40**. In this example, straps **12** (FIG. **1**D) will have one side of a fastener **32** and strap **14** will include the corresponding mating fastener **33**. Thus, strap **12** can be passed through pockets **40** and then fasteners **32** and **33** can be mated when the strap **14** is in a desired position with respect to straps **12**. It should be understood various configurations and combinations of the attachment between straps **12** and strap **14** are envisioned. Thus, the pockets **40** of strap **14** can be modified to slidably fit straps **12** or to have an open pocket (such as but not limited to a flap) which otherwise engages and/or attaches to straps **12**. Further, the fasteners **32**, illustrated herein, can be spaced as desired to allow for attachment of strap **14** in any desired spacing and to prevent movement of strap **14** in relation to the ends of strap **12**. It should be understood that strap **14** may have other configurations which would allow sliding engagement with straps **12**, attachment to straps **12** without sliding engagement, attachment after sliding straps **14** to a desired location, or any combination thereof. Thus, the specific method or choice of the engagement of, the placement of, and/or the attachment of strap **14** to straps **12** should not be viewed as a limitation thereof.

[0026] FIG. **2**A illustrates in more detail pole **2***a*, having bracket **20** for connection to ratchet end **8**. Preferably bracket **20** is comprises on one end of a connection for the ratchet device **8**. Again, as refereed to above, preferably pole **2***a* has an upper bracket **20** and a lower bracket **20**. Pole **2***a* further preferably comprises angle iron supports **26**. It should be appreciated that angle supports **26** can be of other configurations which provide the necessary support for pole **2***a*. Angle supports **26** help maintain rigidity in the attachment of pole **2***a* to bracket **24**. Bracket **24** is then attached to the grating **4** or other surface preferably by a plurality of bolts **22**. It should be understood that a preferred embodiment may have four bolts **22**; however, depending on how pole **2***a* or plate **24** is mounted there may be more then four bolts **22** or less then four bolts **22**.

[0027] FIG. **2**B illustrates in more detail pole **2**, having bracket **18** for connection to hook end **16**. It should be appreciated that strap **12** may also be configured with two rachet devices **8** (one on each end, may have hooks **16** or other connectors at each end with a ratchet device **8** in between the fastener ends **16**, or any other combination therein). Preferably bracket **18** comprises a connection for the hook or fastener end **16**, of strap **12**. It should be appreciated that bracket **18** can also be configured similar to bracket **20** and that each of the brackets **18**, **20** can also be configured to accept both the hook or fastener end **16** and/or a ratchet device **8**. Again, as refereed to above and similar to the construction of pole **2***a*, pole **2** preferably has an upper bracket **18** and a lower bracket **18**. Pole **2** also further preferably comprises angle iron supports **26**, which as described above can be of other configurations. Again, as with pole **2***a*, bracket **24** is then attached to the grating **4** or other surface preferably by a plurality of bolts **22**.

[0028] Referring now to FIG. **3**, a pictorial view of bracket plate **24** is illustrated. Plate **24** is preferably at the bottom of poles **2**, **2***a*. This figure further illustrates the bolting **22** protruding through the grating **4**. It should be understood that plate **24** can be modified for attachment of poles **2**, **2***a* to any desired surface.

[0029] FIG. **4**, illustrates bolt **22** and attachment bracket **28**. Attachment bracket **28** may comprise a flat bar with a 90° degree bend; therefore, this bar can ideally fit underneath and into the grating **4** and support plate **24**. Preferably bracket **28** is below the grating **4** and bolt **22** protrudes through the grating **4** and through bottom plate **24**. It should be appreciated by those skilled in the art that other methods or configurations of bolt **22** and plate **28** may be designed in order hold plate **24** to the grating **4**. It should be understood that in embodiments wherein plate **24** is on the ground or on other solid material, other configured brackets **28**, with bolts **22** may be used in order to make a steady attachment to the surface. Further, other embodiments of securing the plate **24** and or poles **2**, **2***a*, to a supporting surface may be envisioned. It should be understood that the term securing, as used herein, can refer to permanent as well as temporary attachment. Further, the securing or attachment may include, but not be limited to, fastening, connecting, or even the utilization of weight or weights to provide the attachment or securing. Therefore, the exact method of securing or otherwise supporting plate **24** and/or poles **2**, **2***a* should not be viewed as a limitation thereof. It should be appreciated that the materials of construction for the poles **2**, **2***a*, the brackets **18**, **20**, the support plates **24**, angle supports **26**, bolting **22**, and any other hardware associated with the mounting or assembly of barrier **10** are preferably of conventionally available materials (preferably, but not limited to a steel, a composite, or any combination thereof). The choice of materials will preferably be based on material availability, desired strength, desired life span of the barricade **10**, as well as environmental concerns such as but not limited to corrosion and erosion.

[0030] FIG. **5** shows an embodiment of the barrier **10** used to barricade a hole or opening **30** in a grating or floor **4**. This embodiment illustrates a safety barrier **10** surrounding the perimeter of hole or opening **30**. This figure further illustrates an embodiment having four poles **2**, **2***a* being mounted to the grating **4**, stretched between each pole **2**, **2***a* is an upper and lower strap **12** with perpendicular straps **14** stretched therebetween. It should be understood, by those in that art, that the number of straps **12** and **14**, as described above, are based on the preference of, the design of, or the desired strength of barrier **10**. It should be understood that, as illustrated in FIG. **5**, pole **2** and pole **2***a* can have both brackets **18** and brackets **20** (or a bracket which combines the features and capabilities of brackets **18** and brackets **20**) such that either or both ends of a strap **12** can be attached to the same pole **2**, **2***a*.

[0031] In use, barrier **10** is erected any place that there is a hole **30** in a grating or flooring **4**, a missing rail, or any other dangerous situation which would allow a worker or machinery to pass through and fall to lower decks or fall through holes that may have occurred due to maintenance, construction, damage, or any other reason. Preferably poles **2**, **2***a* are erected and attached at each end of the area to be barricaded or around an area to be barricaded. If the area to be barricaded is of a certain length then more then a plurality of poles **2**, **2***a* may be necessary. Upper and lower straps **12** are attached to brackets **18** and then stretched so as attached to brackets **20** on a corresponding pole **2**, **2***a*, ratchet **8** may then be operated in

order to create a desired tension of strap **12**. Straps **14** are preferably attached in a perpendicular fashion between straps **12** and are also at a desired tension after straps **12** are tensioned. It should be understood that it is possible to preconstruct strap **12** with the straps **14** already constructed to a certain length and attached to upper and lower strap **12**. Therefore, when straps **12** are tightened to a desired tension, straps **14** are correspondingly tightened.

[0032] It will be understood that certain features and sub-combinations are of utility and may be employed without reference to other features and sub-combinations. This is contemplated by and is within the scope of the claims. It may be seen from the preceding description that a novel safety barrier and method of erection has been provided. Although specific examples may have been described and disclosed, the invention of the instant application is considered to comprise and is intended to comprise any equivalent structure and may be constructed in many different ways to function and operate in the general manner as explained hereinbefore. Accordingly, it is noted that the embodiments described herein in detail for exemplary purposes are of course subject to many different variations in structure, design, application and methodology. Because many varying and different embodiments may be made within the scope of the inventive concept(s) herein taught, and because many modifications may be made in the embodiment herein detailed in accordance with the descriptive requirements of the law, it is to be understood that the details herein are to be interpreted as illustrative and not in a limiting sense.

1. A safety barrier comprising:
- a first strap, a second strap, and a third strap, each said strap having a first end and a second end;
- a first structural member having a first attachment point and a second attachment point;
- a second structural member having a third attachment point and a fourth attachment point;
- said first end of said first strap being configured for attachment to said first attachment point;
- said first end of said second strap being configured for attachment to said second attachment point;
- said second end of said first strap being configured for attachment to said third attachment point;
- said second end of said second strap being configured for attachment to said fourth attachment point, wherein said second end of said first strap and said second end of said second strap are configured to tension said first strap and said second strap, respectively, when said first strap is attached between said first attachment point and said third attachment point and said second strap is attached between said second attachment point and said fourth attachment point; and
- said first end and said second end of said third strap being configured to attach to said first strap and to said second strap, wherein said first strap, said second strap, and said third strap form a safety barrier when said first strap and said second strap are respectively attached between said first and third, and said second and fourth attachment points and tensioned.

2. The safety barrier of claim **1**, wherein said second end of said first strap and said second end of said second strap comprise a ratchet device attachable to said third and said fourth attachment points, respectively.

3. The safety barrier of claim **1**, wherein said ratchet device is operated to achieve the desired tension.

4. The safety barrier of claim **1**, wherein said third strap is positioned in a substantially perpendicular relationship to said first strap.

5. The safety barrier of claim **1**, wherein said first and second structural members are poles attached to a bottom supporting surface.

6. The safety barrier of claim **5**, wherein said poles are attached to a grating.

7. The safety barrier of claim **5**, wherein said poles each have a first end and a second end.

8. The safety barrier of claim **7**, wherein said poles have a base at said second end.

9. The safety barrier of claim **8**, wherein the base is attached to a bottom supporting surface by at least one attachment bolt.

10. The safety barrier of claim **1**, wherein the third strap comprises pockets through which the first strap may pass, whereby said third strap is slidably movable along said first strap.

11. A safety barrier comprising:
- a plurality of first straps and a plurality of second straps, each a first end and a second end;
- a first structural member having a plurality of attachment points and a second structural member having a plurality of attachment points;
- each said first end of said plurality of first straps being configured for attachment to said first structural member;
- each said second end of said plurality of first straps being configured for attachment to said second structural member, wherein each said second end of said plurality of first straps are configured to tension each of said plurality of first straps when said plurality of first straps is attached between said first structural member and said second structural member; and
- each of said first end and each of said second end of said plurality of second straps being configured to attach to said plurality of first straps, wherein said plurality of first straps and said plurality of second straps form a safety barrier when said plurality of first straps are attached between said first and said second structural members and tensioned.

12. The safety barrier of claim **11**, wherein said second end of said plurality of first straps comprise a ratchet device attachable to said second structural member.

13. The safety barrier of claim **11**, wherein said ratchet device is operated to achieve the desired tension.

14. The safety barrier of claim **11**, wherein said plurality of second straps is positioned in a substantially perpendicular relationship to said plurality of first straps.

15. The safety barrier of claim **11**, wherein said first and second structural members are poles attached to a bottom supporting surface.

16. The safety barrier of claim **15**, wherein said poles are attached to a grating.

17. The safety barrier of claim **15**, wherein said poles each have a first end and a second end.

18. The safety barrier of claim **17**, wherein said poles comprises a base at said second end.

19. The safety barrier of claim **18**, wherein the base is attached to a bottom supporting surface by at least one attachment bolt.

20. The safety barrier of claim **11**, wherein said plurality of second straps further comprise pockets through which the

plurality of first strap may pass, whereby said plurality of second straps slidingly engage said plurality of first straps.

21. A method of erecting a safety barrier comprising the steps of:

providing at least one pole having a first and second end, said second end comprising a base;

attaching said pole to a grating or other surface;

attaching a first end of a first strap, near said first end of said pole;

attaching a first end of a second strap, near said second end of said pole;

attaching at least one third strap between said first and said second straps;

attaching a second end of said first and said second straps to a structural member having at least two second desired attachment points; and

tensioning said first and said second straps attached between said pole and said second attachment points, wherein said tensioning creates said safety barrier.

22. The method of claim **21**, further comprising the steps of:

providing a second pole, wherein said second pole is said structural member having said second attachment points; and

attaching each said first end of said first and second straps respectively near the first end and second end of said second pole.

23. The method of claim **21**, wherein said at least one third strap comprises a plurality of third straps.

24. The method of claim **23**, further comprising the steps of attaching said plurality of third straps between said first and second straps in a substantially perpendicular manner.

25. The method of claim **23**, further comprising the steps of:

providing a plurality of first and second straps; and

attaching said plurality of first and second straps in a horizontally parallel relationship with each other.

26. The method of claim **25**, further comprising the steps of attaching said plurality of third straps between said plurality of first and second straps so as to be substantially interwoven

27. The method of claim **21**, further comprising attaching a plurality of first and second straps to a plurality of poles.

28. The method of claim **27**, further comprising the steps of:

constructing the safety barrier having a plurality of attachment points; and

attaching said plurality of first and second straps to form a certain desired perimeter and/or circumference around an area.

29. A method of erecting a safety barrier comprising the steps of:

providing a first structural member having at least a first attachment point and a second attachment point;

providing a second structural member having at least a third attachment point and a fourth attachment point;

attaching a first end of a first strap, to said first attachment point;

attaching a first end of a second strap, to said second attachment point;

attaching at least one third strap between said first and said second straps;

attaching a second end of said first strap to said third attachment point;

attaching a second end of said second strap to said fourth attachment point; and

tensioning said first and said second straps attached between said first and third and said second and fourth attachment points, respectively, wherein said tensioning creates said safety barrier.

30. The method of claim **29**, further comprising the steps of:

providing a first pole, wherein said first pole is said first structural member having said first and second attachment points; and

attaching each said first end of said first and second straps respectively near a first end and a second end of said first pole.

31. The method of claim **30**, further comprising the steps of:

providing a second pole, wherein said second pole is said second structural member having said third and fourth attachment points; and

attaching each said second end of said first and second straps respectively near a first end and a second end of said second pole.

32. The method of claim **29**, further comprising the steps of:

providing a second pole, wherein said second pole is said second structural member having said third and fourth attachment points; and

attaching each said second end of said first and second straps respectively near a first end and a second end of said second pole.

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