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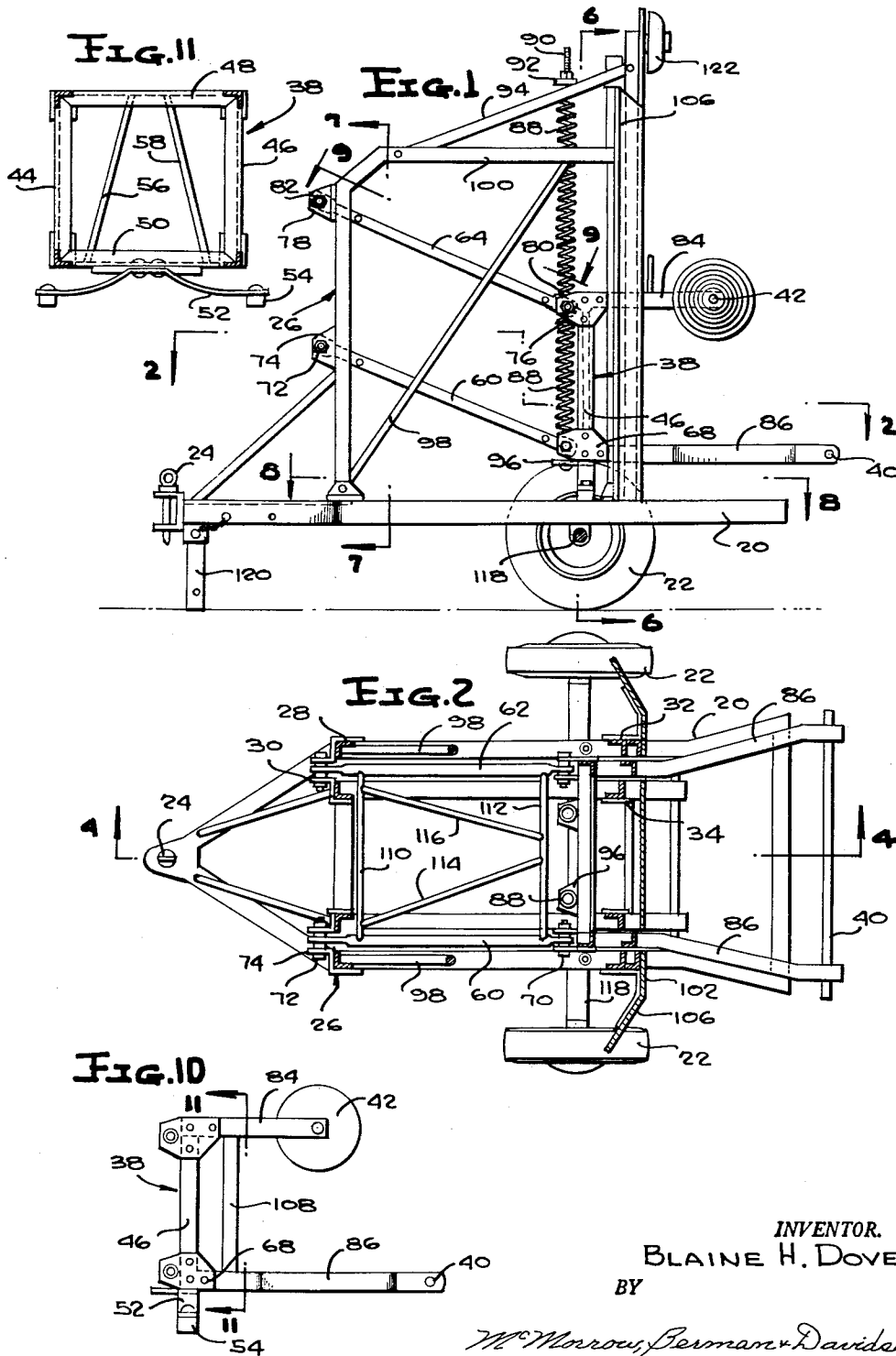
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3,003,765

EXERCISING APPARATUS

Filed May 13, 1960

3 Sheets-Sheet 1



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FIG. 3

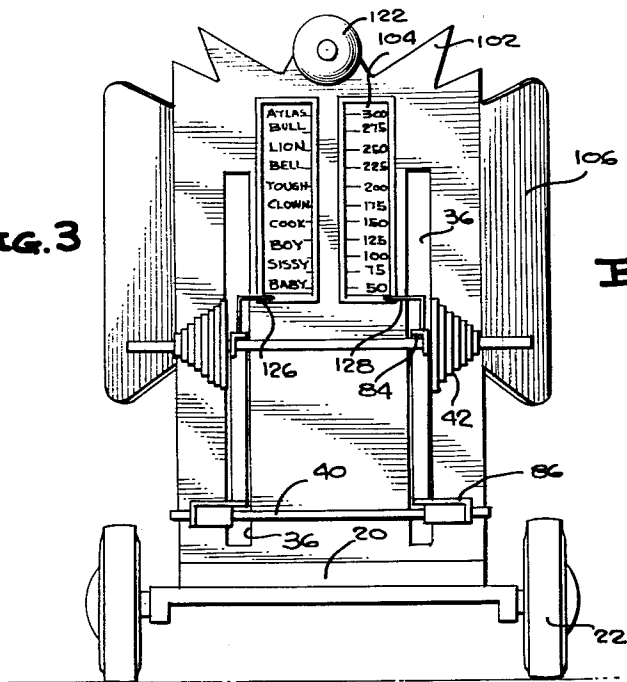


FIG. 5

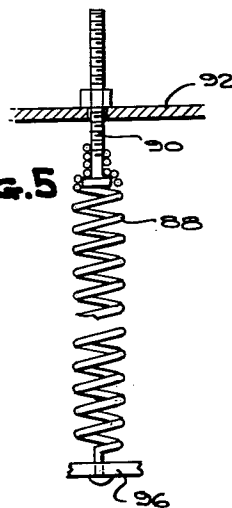
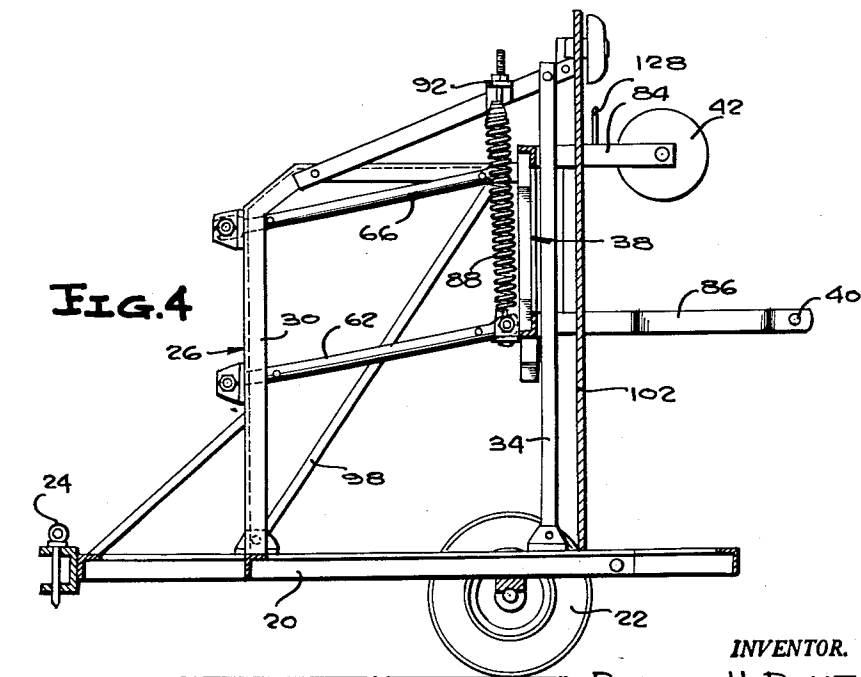


FIG. 4



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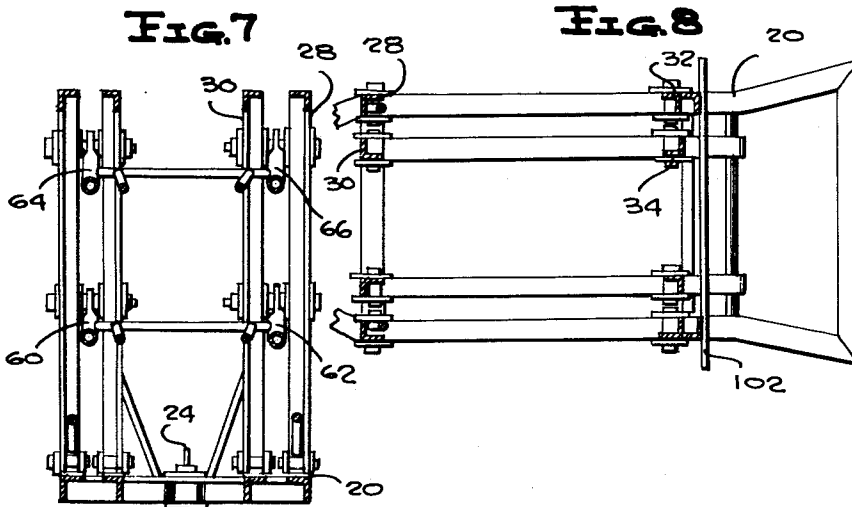
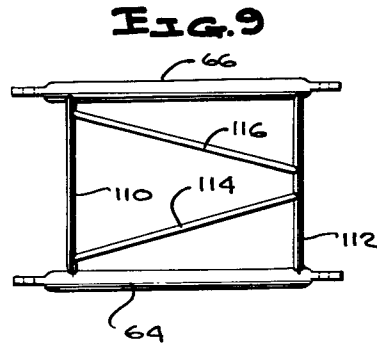
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EXERCISING APPARATUS

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5 Claims. (Cl. 272-81)

The present invention relates to an exercising apparatus for testing the lifting ability of an individual.

Presently in use in public attractions such as fairs, carnivals, circuses, and the like are devices for permitting an individual to test his strength in the manner which is visibly demonstrable to other individuals. Some of the devices in use include a stake or peg to be struck by a mallet, resulting in a weight being propelled upwardly on a track or wire so that a bell or gong, positioned in the path of the weight, is sounded when struck by the weight. Other of the devices include bar bells to be lifted from a ground surface by the individual.

The present invention has for its primary object to provide an amusement device in the form of an exercising apparatus which combines the features of a gong sounding device as above described with a bar bell to be lifted.

Another object of the present invention is to provide an exercising apparatus which permits an individual to display his strength to onlookers, and one which has means which provides a surprise to the individual when trying to display his strength and provides amusement to the onlookers.

A further object of the present invention is to provide an exercising apparatus which attracts interest when displayed before an assembly of individuals, one which is sturdy in construction and safe to operate, one which permits moving of the apparatus from one locality to another with ease and facility, and one which is commercially practical.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in conjunction with the annexed drawings, in which:

FIGURE 1 is a side elevational view of the apparatus of the present invention, one of the wheels being removed;

FIGURE 2 is a view taken on the line 2-2 of FIGURE 1;

FIGURE 3 is an elevational view, viewed from the front;

FIGURE 4 is a view taken on the line 4-4 of FIGURE 2, the bar bell being shown in elevated position;

FIGURE 5 is a fragmentary view partially in section of one of the springs employed in the apparatus, a central portion of the spring being broken away;

FIGURE 6 is a view taken on the line 6-6 of FIGURE 1;

FIGURE 7 is a view taken on the line 7-7 of FIGURE 1;

FIGURE 8 is a view taken on the line 8-8 of FIGURE 1;

FIGURE 9 is a view taken on the line 9-9 of FIGURE 1;

FIGURE 10 is a side elevational view of the frame which supports the bar bell and the handle means, shown removed from the supporting structure; and

FIGURE 11 is a view taken on the line 11-11 of FIGURE 10.

Referring to the drawings in which like numerals indicate like parts throughout the several views, the apparatus of the present invention consists in a trailer bed frame 20 having supporting wheels 22 on either side thereof and a hitch element 24 at the forward end for attachment to a towing vehicle.

An open work frame or supporting structure 26 rises from the bed frame 20 and includes a pair of angle mem-

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bers arranged in lateral spaced relation, the pairs of angle members being arranged so as to form a rectangle as in FIGURE 8, the angle members of each pair being designated by the numerals 28 and 30 for the pairs adjacent the forward end of the frame 20 and by the numerals 32 and 34 for the pairs adjacent the rearward end of the frame 20.

The angle members 32 and 34 of each of the rearward pairs are spaced from each other to form a slot 36, as shown in FIGURES 3 and 6.

An upright frame, designated generally by the reference numeral 38, is mounted within the supporting structure 26 for upward and downward movement in a vertical plane.

A horizontally disposed handle bar 40 is positioned on one side of the frame 38 and is fixedly supported from the lower end of the frame 38. A horizontally disposed bar bell 42 is positioned on the same side of the frame 38 and is also supported from the frame 38, at the upper end of the latter.

In FIGURES 10 and 11, the frame 38 is shown in detail and it consists in spaced upright side members 44 and 46, a top member 48, and a bottom member 50.

A leaf spring 52 having resilient bumper elements 54 on each end is connected by its middle part to the mid-portion of the bottom member 50. Braces 56 and 58 extend from the bottom member 50 to the top member 48 and serve to strengthen the frame 38.

Means is provided connecting the frame 38 to the supporting structure 26 so that the frame 38 may move upwardly and downwardly while maintaining its vertical plane.

Specifically, this means embodies a first pair of laterally spaced connector elements 60 and 62 (FIGURE 7) arranged in laterally spaced relation and positioned on the side of the frame 38 remote from the handle bar 40. One of the complementary ends of the connector elements 60 and 62 are adjacent to the lower end of the frame 38 and the other of the complementary ends of the connector elements 60 and 62 are adjacent to a lower portion of the supporting structure angle members 28 and 30.

A second pair of laterally spaced connector elements 64 and 66 are positioned in superimposed aligned spaced relation with respect to the connector elements 60 and 62 with one of the complementary ends of the second pair of connector elements 64 and 66 adjacent the upper end of the frame 38 and with the other of the complementary ends of the connector elements 64 and 66 adjacent to an upper portion of the supporting structure 26.

Means is provided connecting the ends of the connector elements 60 and 62 adjacent the frame 38 to the frame 38 for pivotal movement about a horizontal axis. This means consists in a plate or ear 68 secured to each of the side members 44 and 46 and forming a support for a pin 70 which extends through the adjacent end of the respective connector element 60 or 62.

Means is also provided pivotally connecting the other ends of the connector elements 60 and 62 to the supporting structure 26 for pivotal movement about other horizontal axes, such means consisting in a pivot pin 72, each extending through a pair of ears 74 which project from the supporting structure 26, as shown in FIGURE 2.

Other ears 76 and 78 are carried on the upper end of the frame 38 and on the upper portion of the supporting structure 26, respectively, and forms support means for other pivot pins 80 and 82, respectively, which extend through the adjacent ends of the connecting elements 64 and 66 and forms a means by which the complementary ends of the connecting elements 64 and 66 are connected to the frame 38 and the supporting structure 26 for pivotal movement about other horizontal axes.

Projecting outwardly from the upper end of the frame

38 on each side thereof are bars 84 supporting the bar bell 42 and projecting outwardly from the lower end of the frame 38, on the same side thereof, are bars 86 supporting the handle bar 40.

Spring means is provided operatively connected to the frame 38 and supporting structure 26 for counterbalancing a portion of the weight of the bar bell 42. Specifically, this means consists in a pair of coil springs 88, each having their upper ends secured to a bolt 90 which extends through a hole provided in a flat top bar 92 which extends between intermediate portions of a pair of upwardly sloping brace elements 94, as shown in FIGURE 1.

The lower end of each of the coil springs 88 is secured to a horizontally projecting shelf 96 carried by the lower end of the frame 38 inwardly of each of the side members 44 and 46.

Other brace elements 98 extend from the lower ends of the angle members 28 to a forward portion of a top piece 100 which connects the upper ends of the corner angle members at the forward end of the bed frame 20 to the corner angle members at the rearward end of the bed frame 20.

An upright panel 102 extends over one face of the rearward angle members and has panels 104 enscribed with appropriate indicia according to the use of the apparatus. Wings 106 extend out from the sides of the panel 102 and are carried thereby.

The panel 102 is provided with slots which coincide with the slots 36, through which projects the bars 84 and 86 which support the bar bell 42 and the handle bar 40.

With further reference to FIGURE 10, an upright member 108 serves to reinforce the frame 38 and support the bars 84 and 86 in their forwardly projecting position in which the bar bell 42 is above and spaced from the handle bar 40.

The connecting elements 60 and 62 and 64 and 66 are reinforced by tubular elements 110, 112, 114, and 116. It is to be understood that the same reinforcing elements are associated with the connecting elements 60 and 62.

Other tubular elements 110, 112, 114, and 116 reinforce the connector elements 60 and 62. A fixed axle 118 extends between the wheels 22 and supports the wheels 22 for rolling movement over a ground surface.

As shown in FIGURE 1, a stub support 120 is removably positioned beneath the forward end of the bed frame 20 for supporting the latter when it is detached from a towing vehicle.

A pair of pointers 126 and 128 project over indicia on the front face of the panels 104 and are carried by the frame 38. A gong 122 is secured to the upper end of the panel 102 and means is provided operatively connected to the frame 38 for ringing the gong 122 when the frame 38 is raised, the gong operating means not being shown as not forming a part of the present invention.

In use, the apparatus of the present invention is with ease and facility towed behind a towing vehicle to a circus, carnival, fair or the like.

An individual, wishing to test his strength, has only to step up to the handle bar 40 and apply a lifting force to the same to lift the bar bell 42. An element of surprise enters into the use of the apparatus due to the biasing of the springs 88 upwardly and bearing or relieving a part of the weight of the bar bell 42.

An individual, applying a lifting force to the handle bar 40, finds it comparatively easy to lift the bar bell 42 for an inch or so but, as the springs 88 relax, the full weight of the bar bell 42 is felt by the individual and in most cases it is difficult to lift the bar bell 42 to the position in which the gong 122 is rung.

What is claimed is:

1. In an exercising apparatus, an upright skeleton supporting structure, an upright frame mounted within said structure for upward and downward movement in a

vertical plane, a horizontally disposed handle bar means on one side of said frame and fixedly supported from the lower end of said frame, a horizontally disposed bar bell on said one side of said frame and supported from the upper end of said frame, means connecting said frame to said supporting structure so that the frame may move upwardly and downwardly while maintaining its vertical plane, and spaced coil springs operatively connected to said frame and said supporting structure for counterbalancing a portion of the weight of said bar bell.

2. In an exercising apparatus, an upright skeleton supporting structure, an upright frame mounted within said structure for upward and downward movement in a vertical plane, a horizontally disposed handle bar means on one side of said frame and fixedly supported from the lower end of said frame, a horizontally disposed bar bell on said one side of said frame and supported from the upper end of said frame, means connecting said frame to said supporting structure so that the frame may move upwardly and downwardly while maintaining its vertical plane, said last-named means embodying at least two rigid connector elements arranged in superimposed aligned spaced relation positioned on the other side of said frame with one of the complementary ends of the connector elements adjacent to the upper and lower ends of said frame respectively and with the other of the complementary ends adjacent to upper and lower portions of said supporting structure, means connecting said one ends of said connector elements to the upper and lower ends of said frame for pivotal movement about horizontal axes, means connecting the other of the complementary ends of said connector elements to said supporting structure for pivotal movement about other horizontal axes, and spaced coil springs operatively connected to said frame and said supporting structure for counterbalancing a portion of the weight of said bar bell.

3. In an exercising apparatus, an upright skeleton supporting structure, an upright frame mounted within said structure for upward and downward movement in a vertical plane, a horizontally disposed handle bar means on one side of said frame and fixedly supported from the lower end of said frame, a horizontally disposed bar bell on said one side of said frame and supported from the upper end of said frame, means connecting said frame to said supporting structure so that the frame may move upwardly and downwardly while maintaining its vertical plane, and spring means operatively connected to said frame and said supporting structure for counterbalancing a portion of the weight of said bar bell.

4. In an exercising apparatus, an upright skeleton supporting structure, an upright frame mounted within said structure for upward and downward movement in a vertical plane, a horizontal disposed handle bar means on one side of said frame and fixedly supported from the lower end of said frame, a horizontally disposed bar bell on said one side of said frame and supported from the upper end of said frame, and means connecting said frame to said supporting structure so that the frame may move upwardly and downwardly while maintaining its vertical plane, said last-mentioned means embodying a first pair of laterally spaced connector elements positioned on the other side of said frame with one of the complementary ends of the connector elements adjacent to the lower end of said frame and with the other of the complementary ends of the connector elements adjacent to a lower portion of said supporting structure, a second pair of laterally spaced connector elements positioned in superimposed aligned spaced relation with respect to said first pair of connector elements and with one of the complementary ends of said second pair of connector elements adjacent to the upper end of said frame and with the other of the complementary ends of said second pair of connector elements adjacent to an upper portion of said supporting structure, means connecting said one ends of said connector elements to the upper

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and lower ends of said frame for pivotal movement about horizontal axes, means connecting the other of the complementary ends of said connector elements to said supporting structure for pivotal movement about other horizontal axes, and spaced coil springs operatively connected to said frame and said supporting structure for counterbalancing a portion of the weight of said bar bell.

5. In an exercising apparatus, an upright skeleton supporting structure, an upright frame mounted within said structure for upward and downward movement in a vertical plane, a horizontally disposed handle bar means on one side of said frame and fixedly supported from the lower end of said frame, a horizontally disposed bar bell on said one side of said frame and supported from the upper end of said frame, and means connecting said frame to said supporting structure so that the frame may move upwardly and downwardly while maintaining its vertical plane, said last-mentioned means embodying a first pair of laterally spaced connector elements positioned on the other side of said frame with one of the complementary ends of the connector elements adjacent to the lower end of said frame and with the other of the complementary ends of the connector elements adjacent to a lower portion of said supporting structure, a second pair of laterally spaced connector elements positioned in superimposed aligned spaced relation with respect to said first pair of connector elements and with one of the complementary ends of said second pair of connector elements adjacent to the upper end of said frame and with the other of the complementary ends of said second pair of connector elements adjacent to an upper portion of said supporting structure, means connecting said one ends of said connector elements to the upper and lower ends of said frame for pivotal movement about horizontal axes, means connecting the other of the complementary ends of said connector elements to said supporting structure for pivotal movement about other horizontal axes, and spring means operatively connected to said frame and said supporting structure for counterbalancing a portion of the weight of said bar bell.

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tioned in superimposed aligned spaced relation with respect to said first pair of connector elements and with one of the complementary ends of said second pair of connector elements adjacent to the upper end of said frame and with the other of the complementary ends of said second pair of connector elements adjacent to an upper portion of said supporting structure, means connecting said one ends of said connector elements to the upper and lower ends of said frame for pivotal movement about horizontal axes, means connecting the other of the complementary ends of said connector elements to said supporting structure for pivotal movement about other horizontal axes, and spring means operatively connected to said frame and said supporting structure for counterbalancing a portion of the weight of said bar bell.

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