Feb. 4, 1958 E. V. LINDSTROM 2,821,978

TRACTION DEVICE

Filed Sept. 4, 1956 2 Sheets-Sheet 1

Fig. 1

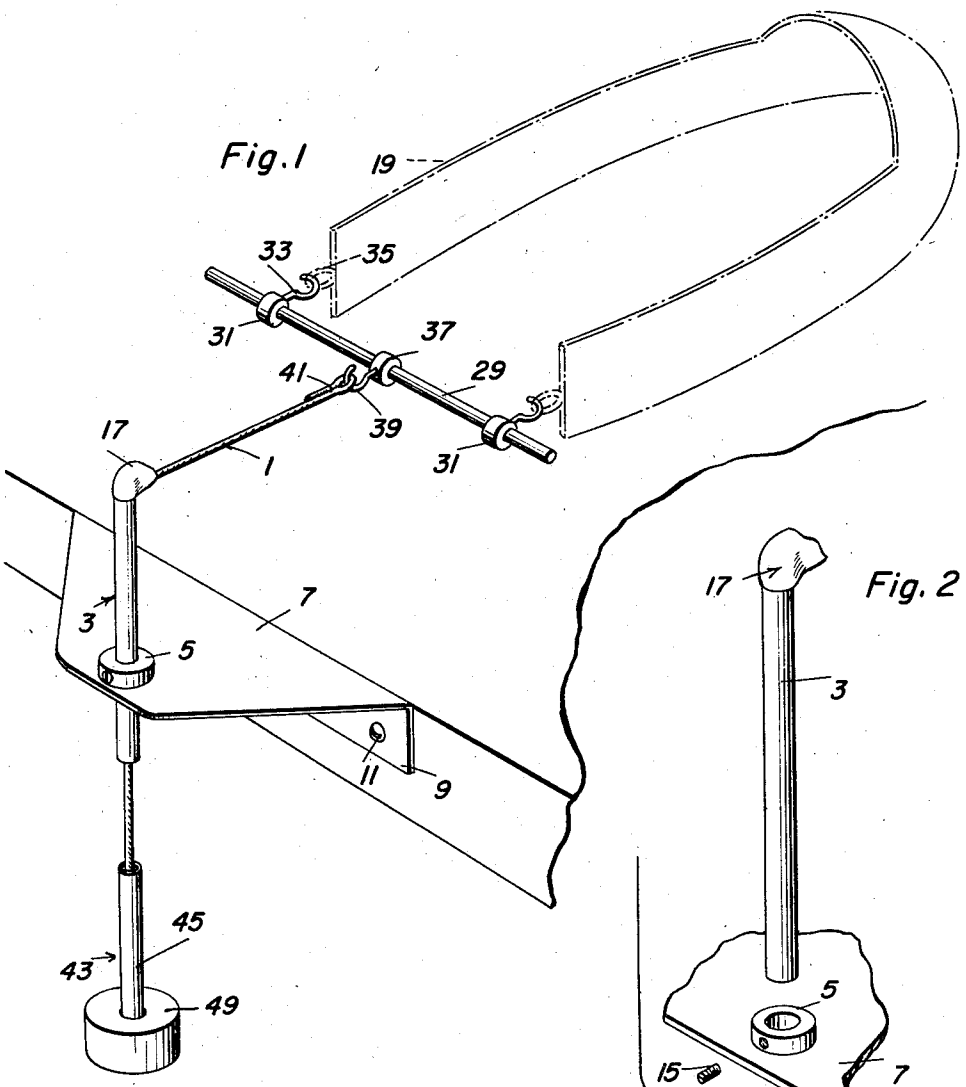


Fig. 2

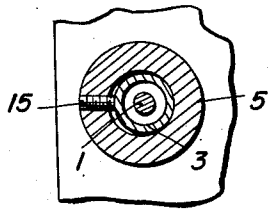


Fig. 4

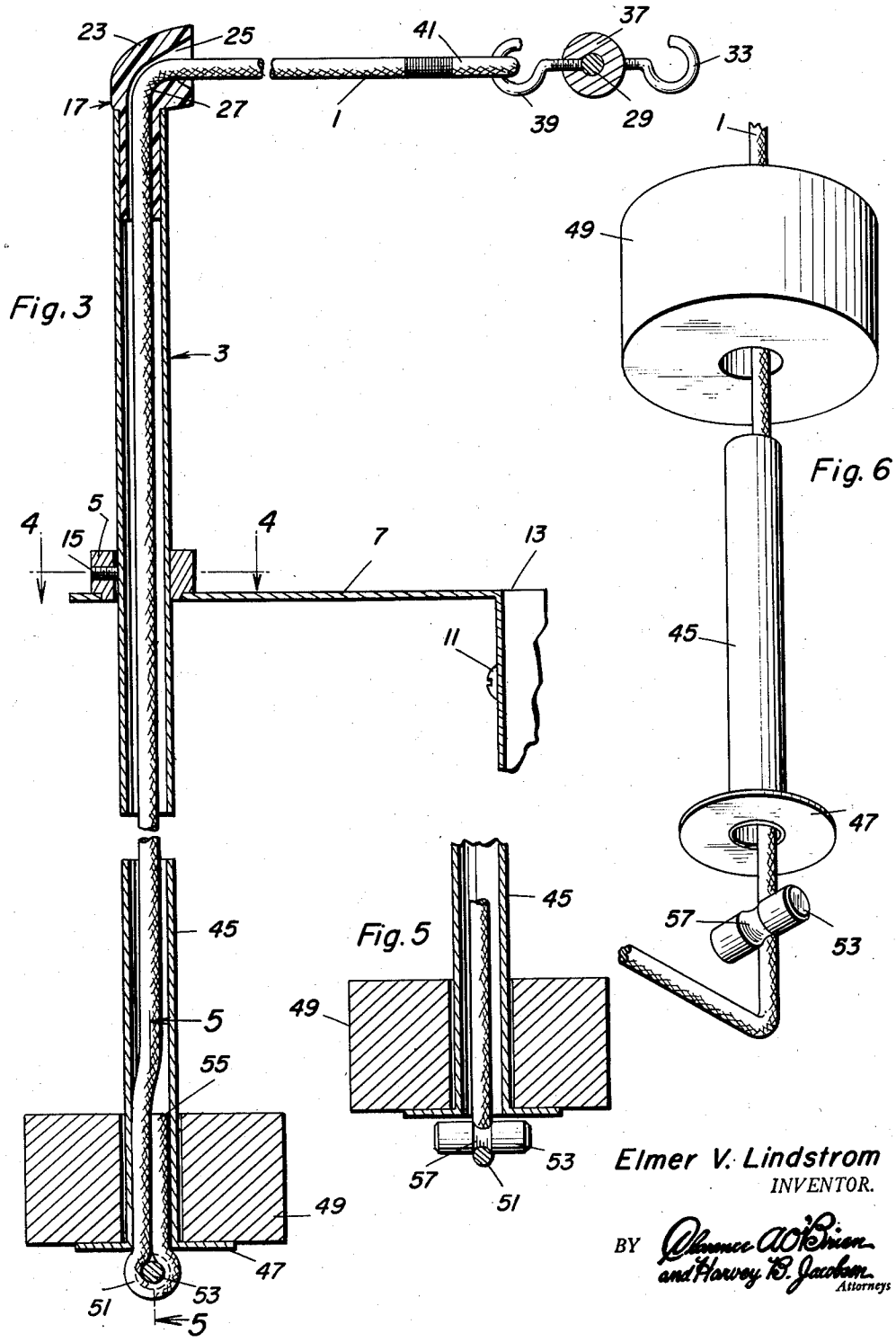
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TRACTION DEVICE

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United States Patent Office 2,821,978 Patented Feb. 4, 1958

2,821,978

TRACTION DEVICE

Elmer V. Lindstrom, Jamestown, N. Y.

Application September 4, 1956, Serial No. 607,729

4 Claims. (Cl. 128—84)

My invention relates to improvements in cervical traction devices for attachment to a table, a hospital bed or the like for use by physicians, to stretch the spinal column.

The primary object of my invention is to provide a simple device utilizing weights suspended on a cable for applying traction and which eliminates objectionable pulleys, provides for easily and quickly varying the number of weights on the cable, and novel means for varying, as occasion may require, the distance at which the weight is suspended from a floor or the like.

Still another object is to provide for housing the major portion of the cable suspending the weight to stabilize the cable and weight against being swung and thereby causing uneven traction.

Still another object is to provide a traction device for the above purposes which can be attached to a physician's table or the like easily and quickly, is inexpensive to manufacture and attach, and will not get out of order.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a fragmentary perspective view of my invention, shown partly in broken lines, attached to a table;

Figure 2 is an enlarged, exploded view in perspective of parts of this invention;

Figure 3 is an enlarged fragmentary view in vertical section partly broken away;

Figure 4 is a fragmentary view in horizontal section taken on the line 4—4 of Figure 3;

Figure 5 is a fragmentary view in vertical section taken on the line 5—5 of Figure 3; and

Figure 6 is an enlarged view in perspective of a weight holder, and friction cable locking means for suspending the weight holder on the cable.

Referring to the drawings by numerals, the traction device of my invention comprises a cable 1 slidably extending through an upright, upper tubular guard section 3 vertically adjustably and rotatably secured intermediate its ends in a collar 5 on a shelf 7 attachably horizontally by a flange 9 therein and screws 11 to the head of a table 13, or a bed, so that the guard 3 extends above and below said shelf 7 and table. A set screw 15 in the collar 5 holds the guard 3 in adjusted position.

The cable 1 slidably extends through a guide 17 in the upper end of the guard section 3 over the table for connection to a conventional head harness 19, shown in broken lines, and which is attachable to the head of a patient, not shown, lying on the table 13.

The guide 17 is preferably formed of plastic and comprises a tubular neck 21 slidably fixed in the guard 3, and an elbow head 23 adapted to face the table 13 and having a flaring mouth 25 and a curved throat 27 to prevent fraying the cable 1.

A harness attaching cross rod 29 is provided on the upper end of the cable 1 and is provided with a pair of collars 31 slidably and rotatably fitted thereon, adjacent its ends, and hooks 33 on said collars 31 engageable in

eyes 35 on the ends of the harness 19. A central collar 37, fastened on the rod 29 between the collars 31, is provided with a hook 39 engaging a terminal hook 41 on the cable and detachably attaching the rod 29 to said cable 1.

Suspended on the cable 1 beneath the guard section 3 is a weight holder designated generally by the numeral 43. The weight holder 43 comprises an upright, lower, tubular guard section 45 separated from the guard section 3 and through which the cable 1 slidably extends. The lower guard section is formed with a lateral circumferential flange 47 for supporting an annular weight 49 for exerting pull on the cable 1 to provide the necessary traction exertion by the head harness 19. As will be understood, other weights, not shown, may be stacked on the weight 49 for varying the traction as desired.

The friction locking means for suspending the weight holder 43 on the cable comprises a loop 51 in the cable 1 around a cross pin 53 beneath the flange 47 and a free terminal end 55 on the cable return bent back into the lower guard section. The loop 51 is spread apart by the pin 53 beneath the flange 47 so that it is larger than the internal diameter of the lower guard section 45 so that frictionally engaged by said section 1 and thereby prevents this terminal end from pulling out of said section 45. The cross pin 53 is provided with a central circumferential groove 57 for receiving the loop 51.

As will be seen, the upper guard section 3 prevents the cable 1 from swaying or being casually swung in a manner to interrupt the traction on the patient. To add more weights, such as 49, the lower guard section 45 is raised on the cable 1 so that the terminal end 55 may be withdrawn out of said section. The cross pin 53 is removed. The lower guard section 45 is pulled off the cable 1. Additional weights, not shown, are secured onto said section 45, the cable then reinserted through said section 45, the pin 53 positioned for looping the cable therearound and the terminal end 55 reinserted in said section 45.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A cervical traction device comprising a shelf attachable in horizontal position to base, a tubular cable guard section vertically adjustably extended through said shelf, a cable slidably extending through said guard section and having an upper end extending out of the same and adapted for connection to a head harness, a cable guide in the upper end of said guard section through which said cable extends and having a flaring mouth and a rounded throat for preventing fraying of said cable, a second tubular cable guard section below said first guard section carrying a weight and through which said cable extends, and means including a loop of said cable below said second guard section frictionally locking said cable to said second guard section.

2. A cervical traction device according to claim 1, and a cross rod on the upper end of said cable having means thereon attachable to a head harness.

3. A cervical traction device according to claim 1, said last means further including a pin extending through said loop.

4. A cervical traction device according to claim 1, said second guard section having a bottom flange, and an annular weight sleeved onto said second guard section and seated on said flange.

No references cited.