Dec. 4, 1962 J. P. MULLENS 3,066,371

BUTT HOOKS

Filed May 5, 1961

FIG. 1.

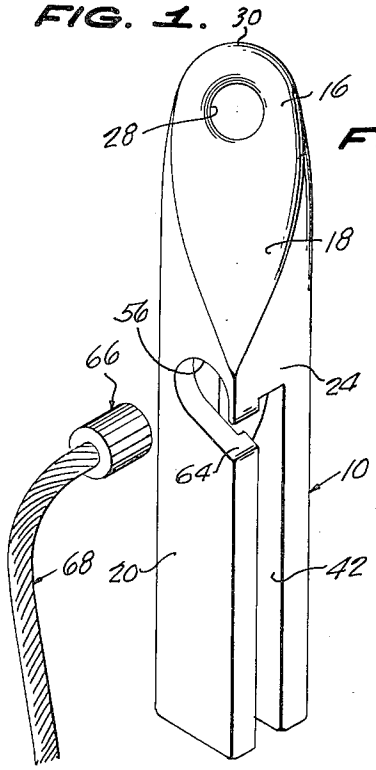


FIG. 2.

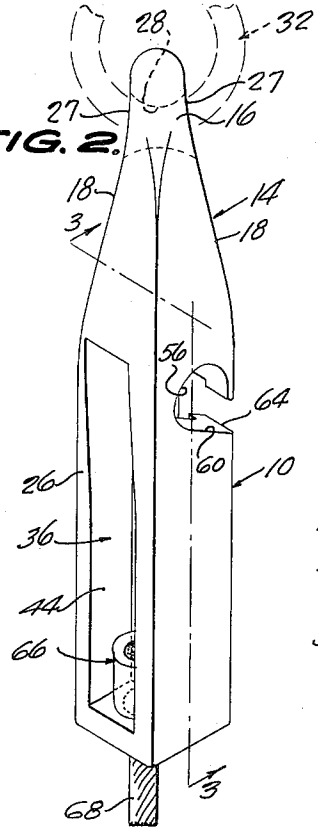
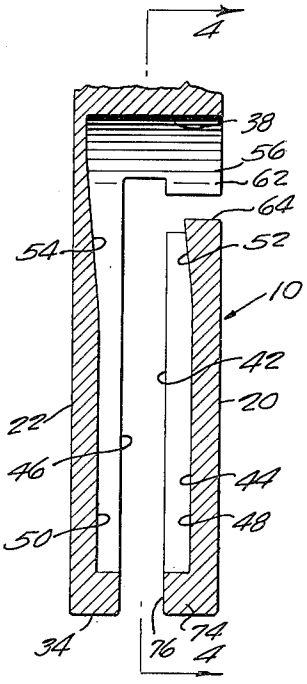


FIG. 3.



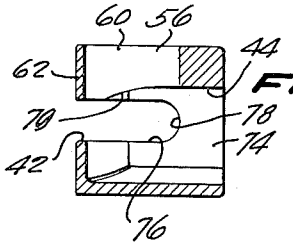
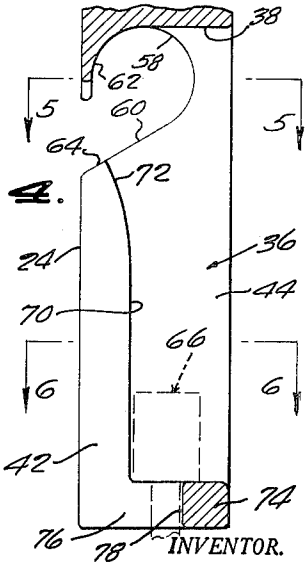


FIG. 5.

FIG. 4.



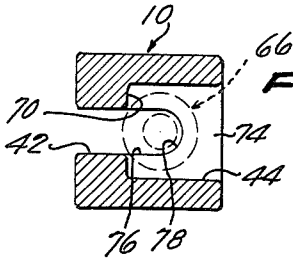


FIG. 6.

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BUTT HOOKS

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3 Claims. (Cl. 24—123)

This invention relates to an improved butt hook for use with choker cables and the like, such as are used for handling logs.

The primary object of the invention is the provision of a generally superior hook of the kind indicated, which has improved and more reliable means for positively preventing disengagement therefrom, in either a taut or a slack condition of associated cables, of the ferrule or knob on an end of a cable, while at the same time rendering easy the removal of the ferrule or knob from the hook, when desired.

Another object of the invention is the provision of a simple and compact hook of the character indicated above, which is uncomplex and is adapted to be made in rugged and serviceable forms, at relatively low cost.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein, for purposes of illustration only, a specific form of the invention is set forth in detail.

In the drawings:

FIGURE 1 is a side perspective view of a butt hook of the present invention, showing the ferrule of a cable positioned for insertion through a side opening of the hook;

FIGURE 2 is an edge perspective view of the hook, showing the ferrule in retained position therein, and a cable ring, in phantom lines, engaged through the eye of the hook;

FIGURE 3 is an enlarged fragmentary vertical section taken on the line 3—3 of FIGURE 2, the cable ferrule being removed;

FIGURE 4 is an enlarged fragmentary vertical section taken on the line 4—4 of FIGURE 3, the cable ferrule, in phantom lines, being shown in place; and

FIGURES 5 and 6 are horizontal sections taken on the line 5—5 and 6—6, respectively, of FIGURE 4.

Referring in detail to the drawings, wherein like numerals designate like parts throughout the several views, the illustrated butt hook comprises a vertically or longitudinally elongated, preferably one-piece and preferably rectangular cross section block 10, of suitable metal, having an upper portion 14 which tapers upwardly, from the block 10, to an apex portion 16, which is diagonal relative to the block 10.

As shown in FIGURES 1 and 2, the taper of the upper portion 14 is produced in part by the formation of flats 18, at the intersections of adjacent sides 20 and 22, and first and second edges 24 and 26 of the body 10 which extend upwardly from the upper end of the block, at diagonally opposed sides of the block whereby the apex portion 16 has substantially flat parallel sides 27 which are spaced from each other at a distance substantially less than the cross section of the block 10. A transverse bore 28 extends through the apex portion 16 which is centered relative to a rounded arcuate upper end 30 on the apex portion, so as to constitute an eye for receiving such as a cable connecting ring 32.

The block 10 is formed, from its squared lower end 34, with a central, vertically elongated compound slot 36, which has a closed upper end 38, located at the upper end of the lower body portion 12, and an open lower end which opens to the lower end 34 of the block 10. The slot 36 extends transversely of the block 10 to the edges 22 and 24, as shown in FIGURES 3 and 4.

The compound slot 36 is composed of a relatively narrow parallel sided first portion 42, which opens to the first edge 24 of the block 10, and a wider second portion 44 which opens to the second block edge 26. The sidewalls 46 of the narrower slot portion 42 are straight and parallel. The sidewalls of the wider slot portion 44 have straight parallel lower portions 48 and 50, and straight parallel upper portions 52 and 54 and are angled upwardly toward the block side 22, as shown in FIGURE 3.

The side 20 of the block 10 is formed with a comma-shaped entrance opening 56, which opens to the adjacent sidewall portion 52 of the wider slot portion 44 and to adjacent sidewall 46 of the narrower slot portion 42. The entrance opening 56 has a semi-circular upper edge 58 and an outwardly declining substantially straight lower edge 60 which reaches to the edge 24 of the block 10. The upper edge 58 merges with an adjacent portion of the closed upper end 38 of the slot portions 42 and 44, as shown in detail in FIGURE 4. The outer portion 62 of the upper edge 58 of the opening 56 is spaced laterally inwardly from the block edge 24, and is spaced upwardly from the lower edge 60 of the opening 56, so as to form a restricted throat 64. The opening 56 is large enough in diameter to freely pass an enlarged diameter cylindrical ferrule 66 on an end of a cable 68, and the throat is narrower than the opening 56 and is only wide enough to pass the cable 68. The upper part of the bottom 70 of the wider slot portion 44 adjacent to the sidewall 48 thereof is, as shown in FIGURE 4, curved upwardly and outwardly to the lower edge 60 of the entrance opening 56, as indicated at 72.

The lower end of the wider slot portion 44 is partially closed by a horizontal bottom wall 74, which has a closed slot 76 which is of the same width as and opens to the narrower slot portion 42, as shown in FIGURES 3 to 6, the slot 76, and the slot 36, being narrower than the cubic ferrule 66. The closed slot 76 has a rounded closed end 78 which is spaced laterally inwardly from the second edge 26 of the block 10. As shown in FIGURE 5, the upper part 52 of the wider slot portion sidewall 48, is curved to the adjacent sidewall of the narrower slot portion 42, as indicated at 79.

In use and operation, the cable 68 is secured to the above described butt hook simply by inserting the free end of the cable ferrule 66, through the entrance opening 56, and at the same time, passing the cable 68 through the restricted throat 64, and into and downwardly along the narrow slot portion 42, so as to move the ferrule 66 downwardly in the wider slot portion 44, until the ferrule rests supportably upon the bottom wall 74, as shown in FIGURES 2, 4 and 6, with the cable 66 depending through the bottom wall slot 76.

It is to be observed that when the cable is in a taut condition, the ferrule 66 is maintained against the bottom wall 74 and the cable 68 is held against moving laterally out of the closed slot 76, by its closed end 78, and by the bottom 70 of the wider slot portion 44, as indicated in FIGURE 6. In a slack condition of the cable 68, wherein the ferrule can rise off the bottom wall 74 and move upwardly in the wider slot portion 44, the ferrule 66 cannot move laterally out of the entrance opening 56, accompanied by laterally outward movement of the cable through the narrower slot portion 42, in a direction at right angles thereto. Further, the ferrule 66 and the entrance opening 56 are respectively proportioned in length and width, so that the ferrule cannot pass out through the opening 56, sidewise or in the erect position of the ferrule, which position the ferrule occupies as it moves upwardly in the wider slot portion 44, in a slack condition of the cable 68. Further, engagement of the free or upper end of the ferrule with the upper end 38 of the compound slot 36, in a slack condition of the cable 68, and the sidewalls of the wider slot portion 44, prevent-

ing accidental tilting of the ferrule to a position in which the ferrule could pass endwise out through the opening **56**.

However, when it is desired to disconnect the cable from the butt hook, in a slack condition of the cable, it is necessary only to move the cable laterally outwardly through the narrower slot portion **42** and move the cable upwardly therealong and through the throat **64** of the entrance opening **56**, so as to position the ferrule endwise relative to the opening **56**, and then move the ferrule endwise out of the opening **56**.

Although there has been shown and described a preferred form of the invention, it is to be understood that the invention is not necessarily confined thereto, and that any change or changes in the structure of and in the relative arrangements of components thereof are contemplated as being within the scope of the invention as defined by the claims appended hereto.

What is claimed is:

1. A butt hook comprising a vertically elongated hollow block having first and second side walls, first and second end walls, a top wall, and a bottom wall, said first end wall being formed with a vertically elongated closed slot spaced from said side walls, said slot having an upper end spaced from said top wall and a lower end at said bottom wall, said first side wall being imperforate, said second side wall being formed with a comma-shaped opening having a restricted aperture opening through said second end wall, said second end wall having a vertically elongated slot spaced from the side walls, the second end wall slot being spaced at its upper end from the top wall and extending down through the bottom wall, said comma-shaped opening opening to the upper part of the second end wall slot, said bottom wall having a slot spaced from the side walls, the bottom wall slot having a closed end spaced from said first end and said second end wall and opening through said second end wall, the lower end of the first end wall slot opening to the closed end of the bottom wall slot.

2. A butt hook comprising a vertically elongated hollow block having first and second side walls, first and second end walls, a top wall, and a bottom wall, said first end wall being formed with a vertically elongated closed slot spaced from said side walls, said slot having an upper end spaced from said top wall and a lower end at said bottom wall, said first side wall being imperforate, said second side wall being formed with a comma-shaped opening having a restricted aperture opening through said second end wall having a vertically elongated slot spaced from the side walls, the second end wall slot being spaced at its upper end from the top wall and extending down through the bottom wall, said comma-shaped opening opening to the upper part of the second end wall slot, said bottom wall having a slot spaced from the side walls, the bottom wall slot having a closed end spaced from said first end and said second end wall and opening through said second end wall, the lower end of the first end wall slot opening to the closed end of the bottom wall slot, the inner surface of said first side wall having an upper portion opposite to said comma-shaped opening inclined away from the second side wall.

3. A butt hook comprising a vertically elongated hollow block having first and second side walls, first and second end walls, a top wall, and a bottom wall, said first end wall being formed with a vertically elongated closed slot spaced from said side walls, said slot having an upper end spaced from said top wall and a lower end at said bottom wall, said first side wall being imperforate, said second side wall being formed with a comma-shaped opening having a restricted aperture opening through said second end wall, said second end wall having a vertically elongated slot spaced from the side walls, the second end wall slot being spaced at its upper end from the top wall and extending down through the bottom wall, said comma-shaped opening opening to the upper part of the second end wall slot, said bottom wall having a slot spaced from the side walls, the bottom wall slot having a closed end spaced from said first end and said second end wall and opening through said second end wall, the lower end of the first end wall slot opening to the closed end of the bottom wall slot, and a cable having a cylindrical ferrule on its end, said ferrule being larger in diameter than the cable, said slots except the first end wall slot being only wide enough to pass the cable and said comma-shaped opening having a circular portion only large enough in diameter to pass the ferrule endwise therethrough.

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