

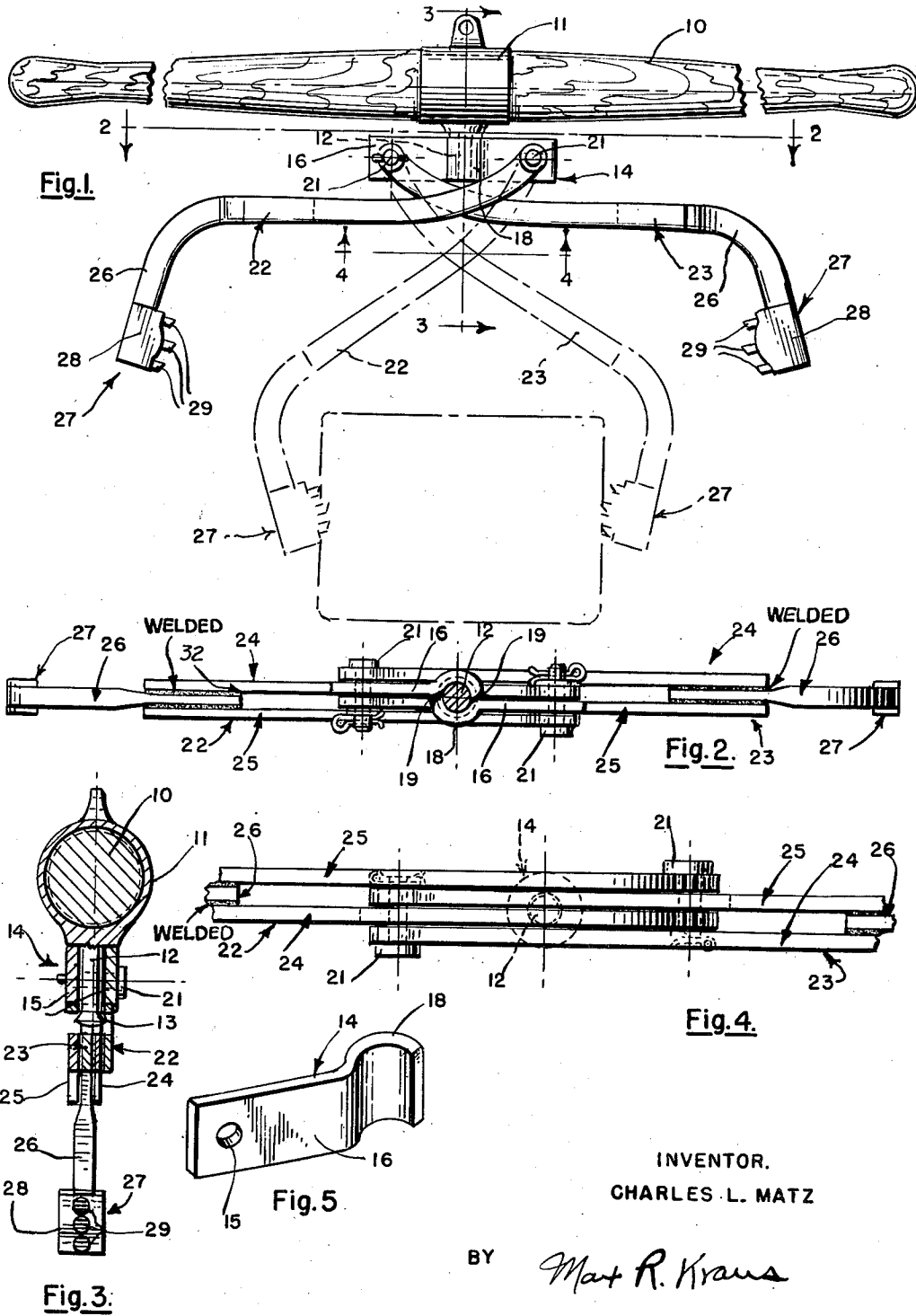
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TIMBER CARRIERS

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TIMBER CARRIERS

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3 Claims. (Cl. 294—16)

My invention relates to improvements in timber carriers.

One of the objects of my invention is the provision of a timber carrier which will hold a wide range of timber sizes with a high degree of safety.

Another object of my invention is the provision of a timber carrier which eliminates both longitudinal and lateral sway of a timber while the same is being carried.

A further object of my invention is the provision of a timber carrier which is designed to compensate for curvature and accordingly may be used interchangeably with timbers having both round and flat surfaces.

A still further object of my invention is the provision of a timber carrier in which the gripping effect thereof is increased as the size of the timber increases.

A still further object of my invention is the provision of a timber carrier in which the gripping effect is distributed over a relatively large area with a minimum of penetration into the timber, thereby preventing injury to the timber particularly when the same has been treated as with a preservative.

A still further object of my invention is the provision of a timber carrier having a plurality of gripping points which are replaceable when damaged or dulled in use.

A still further object of my invention is the provision of a timber carrier of the type described which readily releases itself when the load is released.

Other and further objects and advantages of my invention will become apparent from the following description when considered in connection with the accompanying drawings in which:

Fig. 1 is a side elevational view of an embodiment of my invention and showing in broken lines the gripping elements in a position of engagement with a timber.

Fig. 2 is a cross-sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a cross-sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is a cross-sectional view taken on line 4—4 of Fig. 1.

Fig. 5 is a perspective view of a detail of construction.

Referring to the drawings, the numeral 10 indicates generally a carrying member embraced medially thereof by a clamp 11 from which depends a spindle 12. The end of the spindle 12 is headed as at 13 to provide a shoulder for retaining the swivel bar, indicated generally by 14. The swivel bar 14 is formed of two complementary members shown clearly in Fig. 5, each of the said members including a straight portion 16 and an arcuately formed portion 18. The said members are adapted to be assembled on the spindle 12 with the arcuate portions 18 in confronting relation, as illustrated in Fig. 2 and then welded together, as at 19, to form a unitary member. The swivel bar 14 is adapted for swivelling about the axis of the spindle 12. As will be apparent by reference to Fig. 2, the straight portions 16 of the swivel bar are offset in relation to each other and the perforations 15 are on opposite sides of the axis of the spindle 12.

Pivotally supported from pivot pins 21 are gripping arms 22 and 23. The said gripping arms are identically constructed, each being shaped substantially as shown in Fig. 1 and being comprised of two members 24 and 25 between which is welded a third member 26, the latter being bent downwardly and supporting at its outer end the gripping jaw 27, hereinafter to be described.

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As will be clearly seen by reference to Fig. 2, the inner end of the member 26 disposed between the members 24 and 25 is reduced in thickness so as to provide a desired spacing between the said members and terminates as indicated at 32, the spacing being such as to accommodate one of the members 24 or 25 of the complementary arm for free movement therein. Thus, each of the gripping arms 22 and 23 is, in effect, provided with an open ended slot in which is received in crossed interengaging relation, as illustrated in Fig. 1, a member of a complementary arm, while the ends of the members 24 and 25 are adapted to embrace one end of the swivel bar 14.

The gripping element 27 integrally formed with or otherwise attached to the end of each gripping arm 22 and 23 is similar in construction to that described and claimed in my Patent No. 2,229,334, issued January 21, 1941. Suffice it to say that the gripping element 27 includes a body portion 28 having a plurality of removable tines 29 which are adapted to penetrate to a predetermined degree into an article to be carried and to distribute the stresses applied to said article over a relatively large area.

In the use of the timber carrier, the work or article to be lifted is engaged by the gripping elements 27 in the manner illustrated by the broken lines in Fig. 1. When the carrying member 10 is elevated, the gripping elements will be moved towards each other and in gripping engagement with the work so as to firmly grasp the same whereby upon elevating the carrying member the work is correspondingly lifted.

Because the gripping arms 22 and 23 are independently pivotally supported and are freely movable relative to each other, the arms readily adjust themselves to any irregularities in the surface of the work, thereby permitting the carrying of irregular shaped objects with a high degree of safety and without injury to the work. Additionally, the above described structural feature imparts to the carrying means a range of use of much wider scope than that accomplished heretofore by similar devices. For example, in my improved timber carrier I am able to carry logs or ties ranging from a diameter of five to twenty inches, and I have found that the holding power of the device increases as the size of the timber carried is increased.

While the gripping arms 22 and 23 are shown as being of identical construction it is within the contemplation of my invention to provide a pair of gripping arms, one of which may be constructed like arms 22 and 23 while the other may be formed of a single member adapted to be slidably received between the members of the complementary arm.

I claim:

1. A timber carrier comprising a carrying member, a supporting member swivably connected to and depending from said carrying member, a pair of arms each pivotally connected only at its upper terminal end to said member at fixed spaced points thereon, each of said arms having the upper portion thereof formed of two parallel elements in spaced relation, said arms freely crossing each other with an element of one of said arms being received in the space between the elements of the complementary arm, and work gripping elements on the free lower ends of said arms.

2. A timber carrier comprising a carrying member, a supporting member swivably connected to and depending from said carrying member, a pair of arms each pivotally connected only at its upper terminal end to said supporting member at fixed spaced points thereon, one of said arms having the upper portion thereof formed of two parallel elements in spaced relation and the other of said arms being freely received in the space between said elements and crossing said first mentioned arm, and work gripping elements on the free lower ends of said arms.

3. A timber carrier comprising a carrying member, an elongated horizontally disposed supporting member depending from and swivably connected to said carrying member, said supporting member having oppositely disposed portions offset from each other, a pair of gripping arms each pivotally connected only at its upper terminal end to an offset portion of said supporting member,

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each of said arms having the upper portion thereof formed of two parallel elements in spaced relation, said arms freely crossing each other with an element of one of said arms being received in the space between the elements of the complementary arm, and work gripping elements on the free lower ends of said arms. 5

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