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(54) Scaffolding joints

(57) A scaffolding member (10) comprises a dependent spigot (14) and a wedge (16), both of which are adapted to be inserted within a socket (18) provided on an upright scaffold member (20).

The wedge (16) is movable between a lower and operative position (see Fig. 1) and an upper, inoperative and retracted position (see Fig. 2) in which the wedge (16) is supported above the socket (18) and on the upper surface of a transom or ledger member (12) in a direction transverse to the scaffold upright (20).

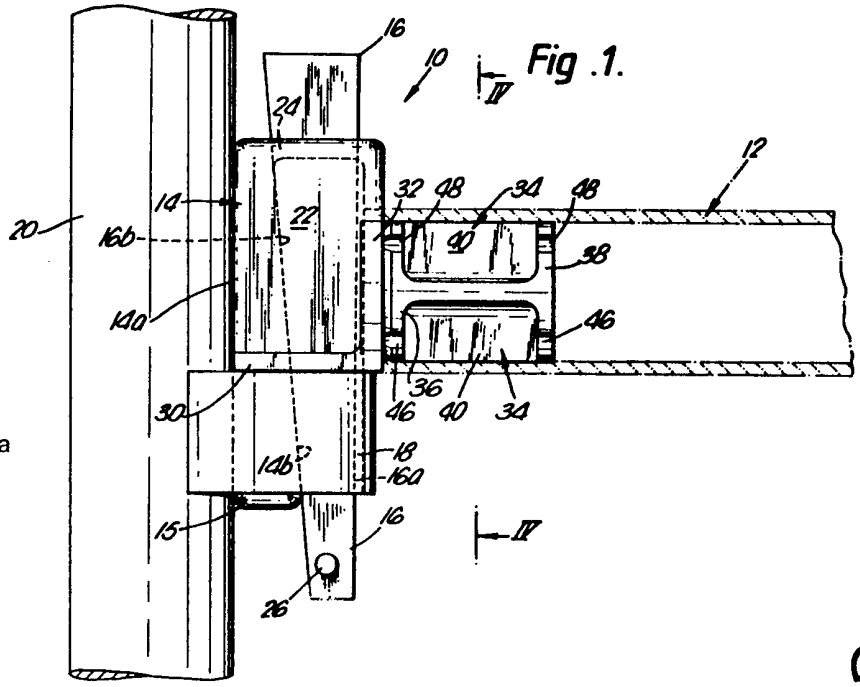

Fig .1.

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Fig. 1.

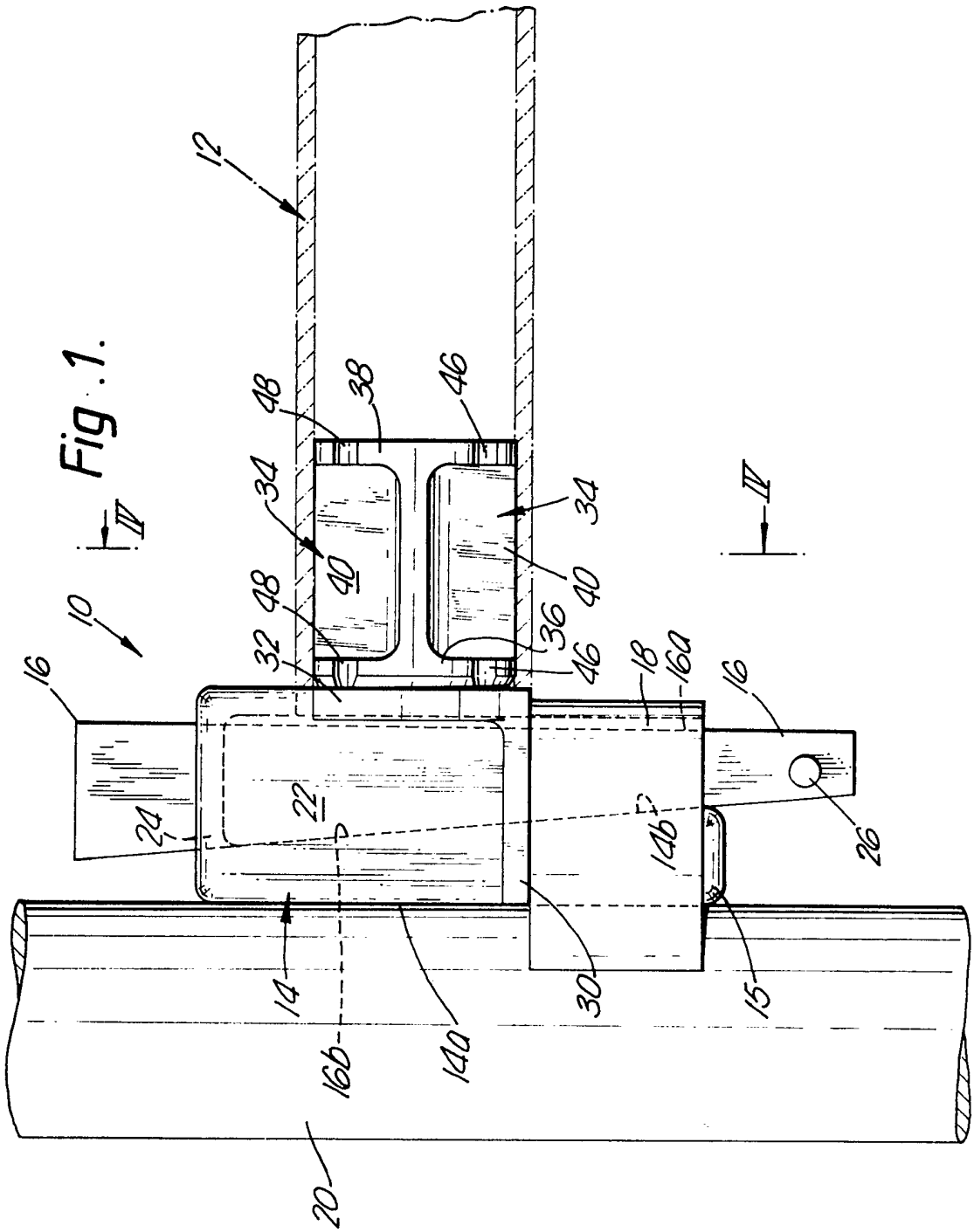

12
48
38
46
34
40
34
40
48
36
32
46
18
16a
16
10
IV
IV
16
22
24
14a
26
14
16b
14b
30
15
20

Fig. 2.

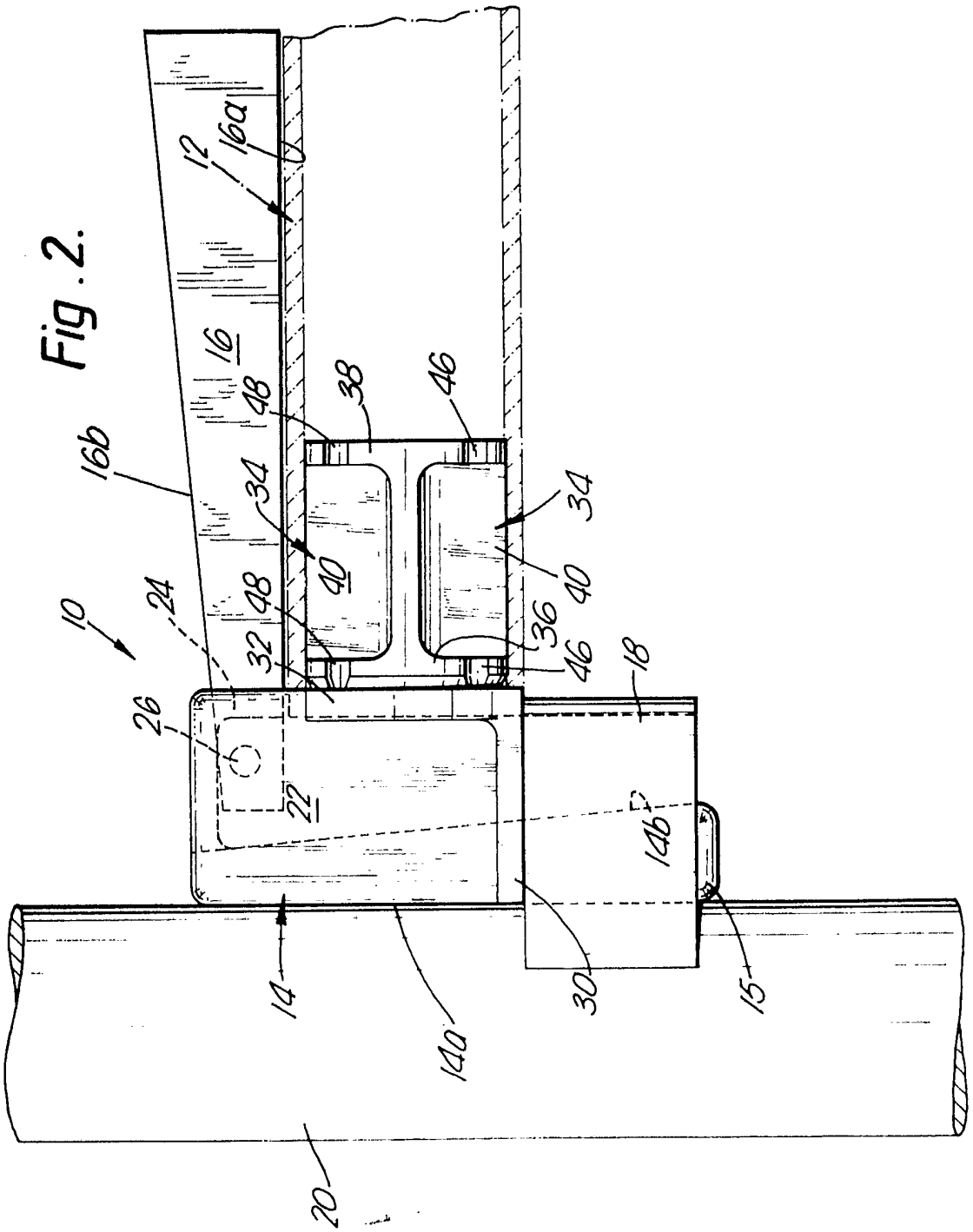

12
16a
16
16b
48
38
46
34
34
40
40
48
24
10
36
32
46
18
26
22
14b
14
14a
30
15
20

Fig.3.

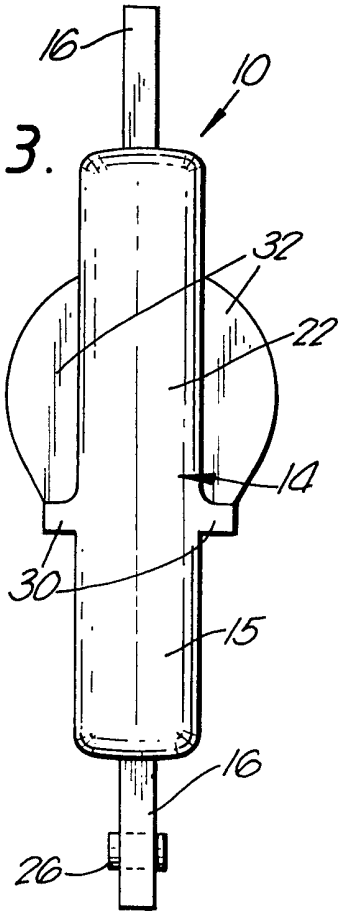


Fig.4.

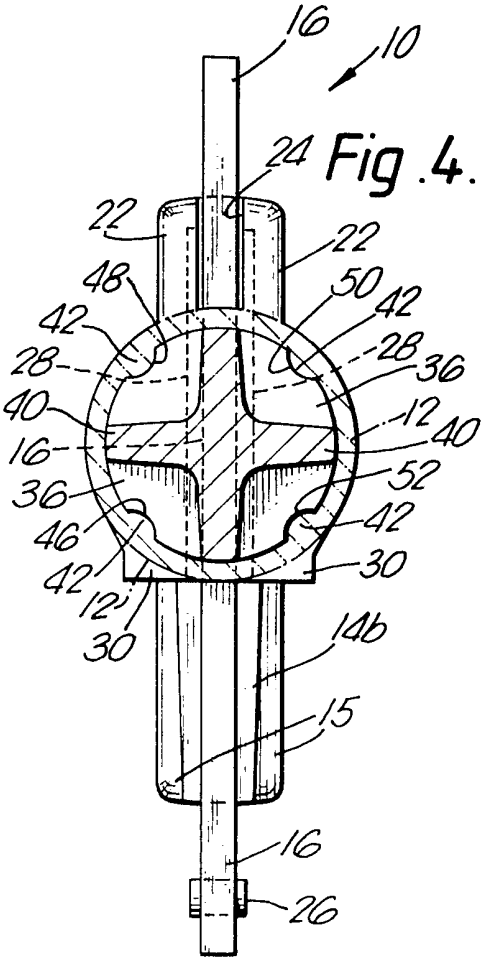
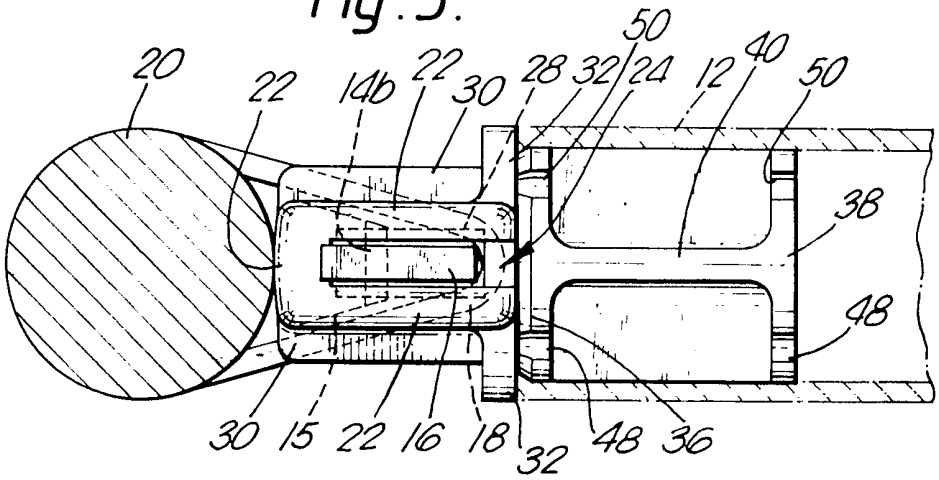


Fig.5.



SPECIFICATION

Improvements in and relating to a scaffolding member

This invention relates to scaffolding members, in particular one forming part of a ledger or transom arrangement.

All known ledgers and transom scaffold members lack the versatility of being both securely attachable to an upright scaffold member when in an operative position and easily detachable from the upright thereafter.

The object of the invention is to overcome or mitigate this problem.

In accordance with the invention, a scaffolding member comprises a dependent spigot adapted to be inserted within a socket provided on an upright scaffold member and to then engage the outer wall of the upright member, and a wedge adapted also to be inserted within the socket and to be then engageable in an operative position both with a wedge engaging face of the dependent spigot member and with an interior face of the socket, the wedge being movable to an upper, inoperative and retracted position in which the wedge is supported above the socket in a direction substantially transverse to the scaffold upright whilst the dependent spigot remains in the socket.

Such a scaffold member provides firstly secure attachment of the scaffold member and hence a ledger or transom to an upright scaffold member, and secondly for the complete withdrawal of the wedge from the socket region and support for the wedge in the withdrawn position, thereby allowing subsequent easy withdrawal of the dependent spigot member from the socket Preferably, the dependent spigot comprises a spigot portion which is adapted to be inserted within the socket and a housing portion which is adapted to engage the outer wall of the upright scaffold. The housing portion suitably contains the wedge both in its operative and inoperative positions. In the inoperative position, the wedge is contained by part of the housing which is upstanding from the upper surface of a transom or ledger member to which the scaffolding member is connected in use to form the transom or ledger arrangement. This allows the wedge to lie in its inoperative position in a direction transverse to the upright scaffold and in particular on the upper surface of the transom or ledger member.

This upstanding housing portion is suitably provided with a slot through which the wedge extends, the wedge being held captive in the slot by the provision of a traverse pin passing through the bottom of the wedge. Preferably the slot is right-angled in shape and configuration, to allow the wedge to extend therethrough whether in its operative or inoperative position.

The inner dimensions of the housing portion is greater than the width of the pin member on the wedge such that the wedge is movable within the whole length of the housing.

The scaffolding member may be provided with a connecting member, to enable it to be attached to the end of a transom or ledger. preferably, this connecting member is designed to engage in the open end of a ledger or transom tube and is integral with the housing portion.

Advantageously, the outer surface of the housing portion is provided with a ledge element so that the scaffolding member may be supported in use by the socket.

This invention will now be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a side view of a scaffold member in accordance with the invention, shown in its operative position and within a socket of an upright scaffold member,

Figure 2 is an identical side view of the member of Figure 1, but shown in its retracted position and within the socket of the upright scaffold member,

Figure 3 is a front view of the member of Figure 1,

Figure 4 is a cross-sectional view of the member of Figure 1, as taken along the line IV-IV of Figure 1, and

Figure 5 is a plan view of the member of Figure 1 within the socket of the upright scaffold member.

In the drawings, a scaffold member 10 is shown connected to a ledger tube 12, the member 10 comprising a dependent spigot member 14 attached to the outer end of the ledger 12, and a wedge 16 positioned between the outer end of the ledger 12 and the spigot member 14. The spigot member 14 is formed of a spigot portion 15 and an integral housing portion 22.

The spigot 15 and wedge 16 are shown positioned within a socket 18 of an upright scaffold member 20 with the member 10 in a secured position (see Figure 1). When the member is in a disengageable position, the spigot 15 remains within the socket 18, but the wedge is withdrawn and laid horizontally on top of the ledger 12 (see Figure 2).

In the locked position, the outer face 14a of the spigot member is flush and adjacent to the upright member 20 while the inner face 16a of the wedge is flush and adjacent the outer end of the socket 18.

The inner face 14b of the spigot member and outer face 16b of the wedge meanwhile are both inclined at the same angle but in opposite senses to each other, so as to wedge together.

The housing 22 is hollow, and arranged to surround the mid portion of the wedge 16 when the wedge is in its operative position.

The housing 22 extends above the top surface of the ledger 12 to act as a retaining member for the wedge 16 when in its retracted position.

A slot 24 is provided in the portion of the housing 22 that extends above the ledger 12, the slot 24 having a right-angled shape (see Figures 1 and 2). The slot 24 is shaped so that the wedge 16 can extend through the upper surface of the housing 22 when in its operative position and so that the wedge 16 can extend through the right hand side of the top portion of the housing 22 when in its retracted position and laid across the top of the ledger 12.

The wedge 16 is held captive in the housing when in its retracted position by a pin member 26 extending through the lower portion of the wedge 16. Specifically, the width of the pin is greater than the width of the slot 24 so that the lower end of the wedge 16 is held captive within the upper portion of the housing 22. To allow free passage of the pin member 26 within the housing 22, the width of the inside (see 28) of the housing 22 is slightly greater than the width of the pin member 26.

The outer side of the housing 22 is provided with a ridge or ledge 30 which, when the spigot 15 and wedge 16 are placed in the socket 18, rest on the top of the socket 18 and give extra stability to the whole arrangement.

The housing 22 includes a transverse plate member 32 to which an inner member 34 is integrally connected. This inner member 34 extends within the ledger 12 and comprises two end plates 36 and 38, and a central horizontally disposed flanged portion 40 therebetween.

The plates 36 and 38 are provided with four series of external grooves (46, 48, 50 and 52) symmetrical about the longitudinal axis of the inner member 34, which are used to accommodate weld ridges 42 provided on the inner surface of the tubular ledger 12, in order to secure the scaffolding member 10 to the ledger 12. Advantageously, this arrangement provides for the secure and rigid attachment of the spigot 15 to the ledger as the relatively long inner member 34 disperses the stresses and loads acting on the scaffold over the length of the member 34.

Alternatively, the housing 22 includes a transverse plate member of slightly larger diameter than the transverse plate 32 shown in the drawings, to which the ledger 12 is directly welded with an automatically welded circumferential fillet weld. In this embodiment, secure and rigid attachment of the spigot 15 to the ledger is provided without the need for an inner member 34.

CLAIMS

1. A scaffolding member comprising a dependent spigot adapted to be inserted within a socket provided on an upright scaffold member and to then engage the outer wall of the upright member, and a wedge adapted also to be inserted within the socket and to be then engageable in an operative position both with a wedge engaging face of the dependent spigot and with an interior face of the socket, the wedge being movable to an upper, inoperative and retracted position in which the wedge is supported above the socket in a direction substantially transverse to the scaffold upright whilst the dependent spigot remains in the socket.

2. A scaffolding member as claimed in Claim 1 wherein the dependent spigot comprises a spigot portion which is adapted to be inserted within the socket and a housing portion which is adapted to engage the outer wall of the upright scaffold.

3. A scaffolding member as claimed in Claim 2 wherein the housing portion contains the wedge both in its operative and inoperative positions.

4. A scaffolding member as claimed in either Claim 2 or 3 wherein the scaffolding member is connected to a transom or ledger member to form a transom or ledger arrangement, the wedge in its inoperative position being contained by the part of the housing which is upstanding from the upper surface of the transom or ledger member.

5. A scaffolding member as claimed in Claim 4 wherein the wedge lies in its inoperative position on the upper surface of the transom or ledger member.

6. A scaffolding member as claimed in any one of claims 2 to 5 wherein the housing portion is provided with a slot through which the wedge extends, the wedge being held captive in the slot by the provision of a pin member on the wedge.

7. A scaffolding member as claimed in Claim 6 wherein the slot is right-angled in shape and configuration.

8. A scaffolding member as claimed in either Claim 6 or 7 wherein the inner dimensions of the housing portion is greater than the width of the pin member on the wedge.

9. A scaffolding member as claimed in any preceding claim wherein the outer surface of the housing portion is provided with a ledge element.

10. A scaffolding member substantially as herein described with reference to the accompanying drawings.

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