CLAMPS FOR USE IN SCAFFOLDING AND LIKE STRUCTURES

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1 Claim. (Cl. 287—54)

This invention relates to clamps for pipes, more particularly for use in scaffolding structures, each comprising crosswise clamping parts and two clamping straps having a forked end, which straps are each adapted to be clamped down on a pipe by means of a wedge secured against getting lost, said wedges being passed through elements that are hingedly connected with the clamps.

In actual practice it has been found that the existing clamps of this type are subject to the disadvantage that if the clamps are to be applied close to each other, it is not always possible properly to drive home one or more of the wedges, since only a restricted space is available for wielding the hammer.

It is now recognized that this disadvantage arises out of the fact that in the known clamps of the type indicated the wedges can only be driven home in one direction, since all of said wedges are single acting.

This disadvantage is eliminated, if, according to the invention the elements referred to hereinbefore are each in the shape of a T-head bolt, whose head in one position may pass through the forked end of a clamping strap and in the positions normal to said forked end may bear thereon.

If said T-head bolt is in one of the two last named positions in which its head bears on said forked end, the wedge may be driven home in one direction and when said T-head bolt is in the other of said two positions the wedge may be driven home in the opposite direction. The wedge, therefore, is double acting here.

The invention is illustrated in the accompanying drawing showing an embodiment.

In said drawing:

Fig. 1 shows, more or less schematically, a clamp according to the invention, in which the clamping straps are clamped down by means of wedges.

Fig. 2 is a plan view of part of the clamp shown in Fig. 1.

The clamp shown in the drawing comprises two clamping parts 1 and 2 which form a cross and in which are supported tubes 3 and 4 forming for example part of a scaffolding structure, and which cross each other at right angles. Each tube is clamped in its associated clamping part by means of clamping straps 5 and 6 respectively. These clamping straps are identical, so that only the construction of the clamping strap 5 need be described. This strap has a forked end having lugs 7 and 8.

Each of the clamping parts comprises an outwardly bent portion 9 which is located opposite the lugs of the associated strap and is provided with a hole 10 registering with the gap between said lugs. A bolt 11 passes with play through said gap and said 10, said bolt having a T-head 12, which in Fig. 1 bridges the gap between the lugs 7 and 8. At its other end the bolt 11 is provided with a slot 13 extending in the axial direction of said bolt.

A wedge 14 is passed through said slot, the narrow end of said wedge being shaped in such a manner that it cannot be removed from the slot. This may be realised by providing said wedge with a projection 15. The wedges therefore, are permanently connected with the clamp. In Fig. 1 the wedge 14 is shown as driven home and the strap 5 therefore is clamped down on the pipe 6.

If the wedge 14 is loosened, the T-head 12 of the bolt 11 and the associated wedge may be turned through 90° in the position shown in Fig. 2, so that the T-head may pass through the gap between the lugs 7 and 8; after lifting the clamping strap by turning same about its pivot 16 the pipe 3 may be removed from the clamp then. Said pivot 16 has its end journaled in the lugs 17 and 18 of a fork provided on the clamping strap at the end remote from the lugs 7, 8, which lugs 17, 18 are located on either side of an eye 19 on the clamping part 1, through which eye the middle part of the pivot 16 passes.

If the T-head 12 and together therewith the wedge are turned through 180° from the position shown in Fig. 1, the direction in which the wedge 14 is to be driven in order to clamp down the strap is opposite to the direction in which said wedge was driven to occupy the position shown in Fig. 1. The wedge therefore is double acting.

1 claim:

A clamp comprising two substantially semi-cylindrical sections positioned with their axes perpendicular to each other and with the outer convex sides of said sections integrally connected, a clamping strap hingedly connected to one end of each of the sections, each clamping strap at its end remote from the hinge connection being bifurcated, each section at the end remote from the hinge connection being provided with an outwardly bent aperture lug, the apertures facing the bifurcated ends of the clamping strap when the strap is in the closed position, a T-head bolt having a slotted shaft passed through each aperture and the corresponding bifurcated clamping strap end, the head in one position being adapted to pass through the bifurcated end and in a position in which the shaft has been turned 90° thereto being adapted to bear on said end, and a wedge passing through the slot of each of the T-head bolts and having a projection on the narrow end thereof, whereby said wedge cannot be withdrawn through the slot in the shaft of the T-head bolt.

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