CHAPTER VI

HOLDFASTS AND PICKETS

Holdfasts and pickets are used in rescue for the purpose of making fast a rope, wire rope, or chain which is under a strain. They fall within two main classes:

A. Those found on the site: reinforced concrete, metal standards, metal framework of buildings, trees, fire hydrants, etc.
b. Those which have to be set up: pickets, beams set in manholes, windows, doors, etc.

Note: In using any type of holdfast, care must be taken to prevent chafing of the rope.

Pickets used as a holdfast:
In ordinary soil, pickets are suitable as holdfasts for strains up to two tons. They may be used singularly for light loads or in combination for heavier loads. (See Fig. 50-A, B, C, & D for different combinations of pickets)

2-1 Combination
A

2-2-1 Combination
B

1-1-1 Combination
C

3-2-1 Combination
D

Pickets
Figure 50

Pickets should be of sound material, if possible of cold rolled steel. In most cases four feet is suitable length, with a diameter of one inch or more. When using hardwood, allow three inches, and for softwood, more than four inches.

Two pickets should be driven into the ground about two-thirds of their length and at an angle of 90 degrees to the line of pull. The pickets should never be less than three feet apart.
When using a combination of pickets, they should be lashed together with a 1/2" x 50' rope. Start the lashing with a clove hitch in the center of the rope near the top of the first picket. Make as many turns (with the rope doubled) as possible around the first and second pickets, going from the top of the first to the bottom of the second. Finish the lashing with two half hitches on the lashing between the two pickets. Repeat the same steps, starting with the second picket and going to the third.

Take a short picket (spinner) and put it through the turns of the lashing rope, between each pair of pickets, twisting until the lashing is taut, then drive the short picket into the ground.

On wet or soft earth, guy lines may be anchored to a timber supported by pickets. (See Fig. 51)

![Combination Log And Picket Holdfast](image)

Combination Log And Picket Holdfast
Figure 51

Since it acts as a beam, the timber must bear evenly on the front row of the pickets. The strength of this type of holdfast is dependent on the strength of the timber and the anchor line. It is called a combination log and picket holdfast.

The deadman holdfast is a timber or pipe buried horizontally in a trench, at a right angle to the pull. (See Fig. 52)

![Deadman Holdfast](image)

Deadman Holdfast
Figure 52

Be sure the deadman is strong enough and is anchored securely for the pull. Dig the trench just big enough for good bearing. The less the earth is disturbed, the better the bearing surface. A deadman properly set and connected to guys may bear a load up to five tons. In most cases, five feet is a suitable length for a deadman.

Normally the weakest part of the lifting rig is at the holdfast. A rescuer should be stationed at the holdfast to keep a careful watch during lifting so that he can see indications of excessive strain on the guy line or holdfast.