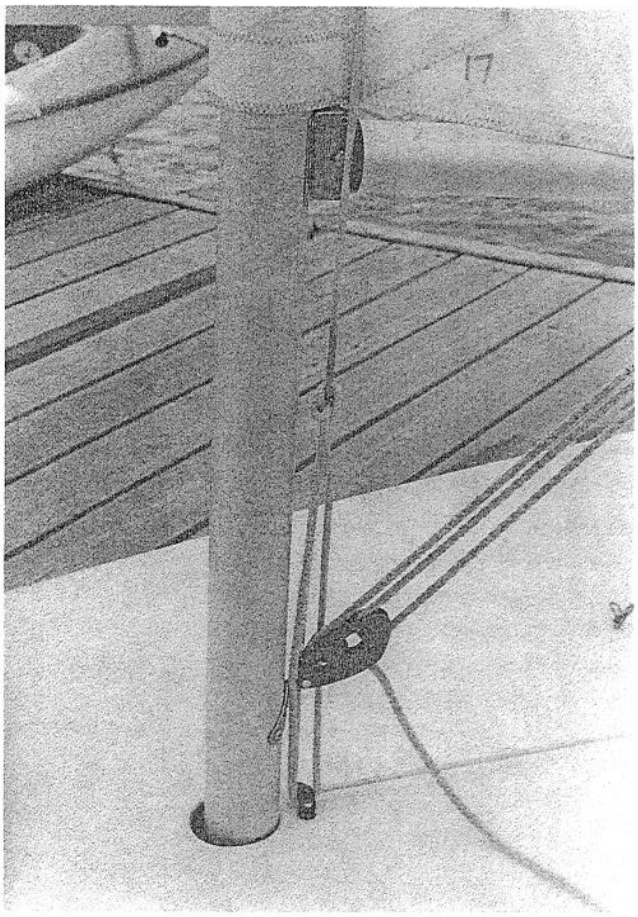
waits for a puff, heads up slightly if sailing low, and quickly trims in his mainsheet. As the boat begins to heel and pick up speed, he bears off but may have to trim in his sheets, because the apparent wind has been drawn forward due to the increased boat speed. At the same time, the skipper and crew should hike out to keep the boat flat and follow the rule for sailing to leeward: head up in the lulls, off in the puffs. The crew should be moved aft during a plane. This is particularly true when the bow begins to dig into the waves. The stern should not be allowed to bury, however. The boom vang is set up tight to remove sail twist, and the centerboard should usually be nearly all the way up. The jib should be kept full. On the other hand, the mainsail may be allowed to luff slightly when planing in a strong wind.

Laser

The single-handed dinghy raced in intercollegiate competition is the popular Laser. This cat-rigged, high-performance boat was designed in 1970 by Bruce Kirby. The first production boat was finished in 1971 with Ian Bruce as the builder and Hans Fogh as the sailmaker. The Laser's dimensions are: 13 feet 10½ inches length overall, 4 feet 6 inches beam, 130 pounds displacement (minimum sailing weight), 2 feet 4 inches draft (with the centerboard down), and 76 square feet of sail area. The hull is fiberglass, while the spars are of aluminum alloy. The hull has 350 pounds of positive flotation built in to provide buoyancy. As with the 420, the Laser is an unballasted centerboard boat fitted with a hiking strap and a tiller extension to allow the transfer of crew weight outboard. The rig is flexible but has no stays or shrouds. (See figure 7-11.)

Rigging the Laser is a simple job requiring only a few minutes. The mast is made up of two lightweight sections that slide together. The luff of the sail is sewn together to form a sleeve that slides completely over the assembled mast, and two Dacron straps at the top of the sleeve hold the sail aloft. The sail is fitted with three battens that are normally sewn into their pockets. After putting the mast together and attaching the sail, fit the mast into a loose step near the bow. Next, rig a Cunningham line to a jam cleat just forward of the centerboard trunk, as shown in figure 7-12.

Since the mainsheet is rigged permanently to the boom and traveler (a light line that can be slackened



7-12. Laser Cunningham and vang. By tying a loop in the Cunningham line and leading the line back through the loop and the fairlead on deck, you get a 2:1 purchase to control luff tension.

or tightened with a jam cleat), ease the sheet completely off to allow the sail to luff while completing the remainder of the rigging operation. Fit the forward end of the boom onto a pin protruding from the gooseneck on the mast. Hold the boom up, walk aft, and secure the clew of the sail to the boom with the clew outhaul. Lead the outhaul forward along the boom and make it fast in its jam cleat. A small clew tiedown, consisting of a piece of *small stuff* (light line) led through the clew, is tied around the boom. This keeps the foot of the sail along the boom regardless of the foot tension set by the outhaul. The final step in rigging the sail is to attach the boom vang. The vang consists of a tackle attached to the mast by a clevis pin and securing ring. The top block of the vang tackle has either a swaged cylinder or a metal pin that slides into a keyhole slot on the bottom of the boom.