

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

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SUBMARINE CABLE PLACING

PLACING FROM A BOAT

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1. GENERAL

1.01 When a regularly equipped cable boat is available for placing submarine cable, it will usually be provided with a power drum and brake and other apparatus necessary for the placing operations.

2. LOADING CABLE ONTO THE BOAT

2.01 To load the cable from the shipping reels the boat should be brought as close as practicable to the freight car or trailer and the cable pulled direct from the reel onto the drum on the boat.

3. PLACING CABLE

3.01 After the cable has been placed on the drum of the cable boat, the boat should be brought in near the shore at the location of the crossing. The side of the crossing selected as the starting point will usually be the one requiring the longer shore end. The shore end should be landed as described later in these practices.

3.02 The cable will usually be paid out directly from the drum over the side of the boat near the bow by means of large sheaves attached to a boom or over the stern of the boat through a sheave mounted on the stern.

3.03 The cable should be placed by moving the boat across the waterway and paying out the cable at a speed that will provide sufficient but not excess slack so that the cable rests in a straight line on the bottom.

3.04 The boat should be brought in as near the shore as practicable at the finishing end of the crossing and anchored at this point. The cable should be secured by a rope stopper attached to the cable and to the side of the boat on which the cable was paid off. The second shore end should then be landed as described later in these practices.

3.05 If more than one reel length of cable is required it may be placed in more than one section and the ends of the section buoyed by means of floats until the splicing operations are completed.

4. LANDING SHORE ENDS

4.01 The first shore end of cables laid in one length, or the shore ends of cables laid in two separate lengths, should be landed as outlined in the following paragraphs.

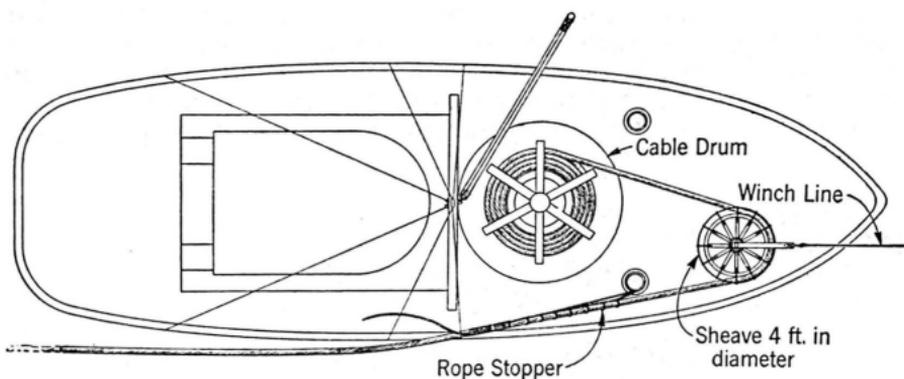
4.02 The cable may be pulled ashore with a line from the power winch on the boat by running the line from the winch over a sheave attached at the terminating point on shore, and then back to the end of the cable on the boat. If desirable, the cable end may be pulled ashore with the winch line from a truck stationed near the point at which the cable will terminate.

4.03 In landing shore ends with a pulling line from a power winch aboard the boat, the pulling line should be attached to the cable at some distance from the end and lashed temporarily to the cable in several places between this point and the end. It is desirable that all the slack be obtained in one pull; therefore, it is essential that the line be attached back of the end far enough to provide this slack. As the end of the cable approaches the sheave on the shore the temporary lashings between the cable and the pulling line should be cut so that the slack required for terminating the cable can be obtained in one pull.

4.04 If the distance from the boat to the shore is several hundred feet or if the bottom is muddy or rocky, it may be advisable to float the cable ashore in a manner similar to that outlined in the practices for pulling cable across waterways. The floats should be attached to the cable as it enters the water from the barge by men working from a boat or raft

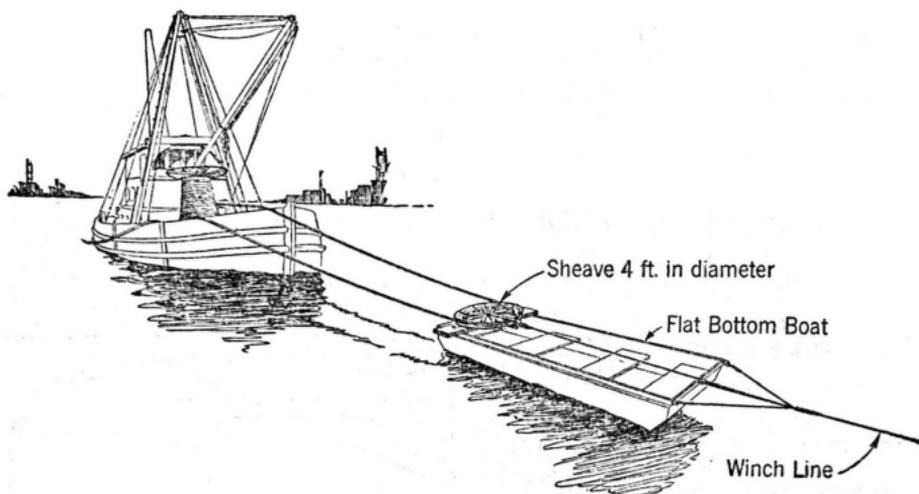
4.05 The second shore end of cables placed in one length should be pulled ashore in a running bight by means of a pulling line and a large sheave. With this method a sheave, about 4 feet in diameter, is placed in a bight formed in the cable aboard the boat. The bight is then pulled ashore with a line attached to the shackle of the sheave as the cable is paid out from the boat. The method of placing the sheave in the bight is shown in the following figure. The bight may be pulled ashore with a line from a truck, or a line from a winch aboard the boat.

METHOD OF PLACING SHEAVE IN BIGHT IN CABLE ON BOAT



4.06 As the sheave is pulled from the boat and approaches the water, a punt or a flat bottom work boat should be brought into position so that the sheave may be mounted horizontally on a fixture secured to the boat as shown in the following figure.

METHOD OF LANDING SECOND SHORE END WITH SHEAVE
PLACED IN BIGHT IN CABLE



4.07 Men should be stationed aboard the flat boat to watch the sheave and to signal the shore or cable boat in case it is necessary to stop the pull on the cable. When the boat reaches the shore, the pull on the cable should be stopped, the sheave removed from the boat and placed in a vertical position on the shore with the free end of the cable feeding onto the top of the sheave. The sheave should be kept in this vertical position by means of a bar threaded through the hole in the hub and held in this position while the remainder of the cable is pulled ashore.

4.08 After the second shore end has been landed and anchored, the rope stoppers on the cable should be removed and the cable placed overboard.