discharging through two ten foot lengths of 1" hose fitted with ¼" nozzles and under a working pressure of 25 pounds will throw a solid stream about thirty feet.

In addition to the 1¼" suction pipe there is a ¼" connection into the suction chamber valve controlled, through which the larvicide concentrate is drawn and thoroughly mixed with lake water in its passage through the pump chamber.

In operating on the large open areas of the lake, the pump is mounted on a 24" flat bottomed scow propelled by an outboard motor. Water is pumped directly from the lake and larvicide drawn from a 55 gallon drum.

At other levels of the lake a 14' rowboat is used and larvicide is then drawn from a 5 gallon can. On other parts of the lake, the pump is mounted on a light pick-up truck in which case, the larvicide is mixed and drawn from a 55 gallon drum and pumped through about 150 feet of garden hose to the shore line.

This equipment has been found very satisfactory and is similar to that used by the T.V.A. though we have been given to understand that it is a more recent design and shows a better performance.

Union County Spray Unit

By R. Vanderwerker

The Union County Mosquito Commission has acquired a Hardie trailer spray unit for larvicide spraying. This unit is attached beyond any of several trucks and hauled to the various jobs. A dual wheel rubber-tired chassis, carrying gasoline engine, 3 cylinder pump, 250 gallon tank with agitator, makes this a complete and effective unit. It pumps 15 gallons per minute at 400

pounds pressure. When not in use, this leaves all trucks free for carrying men or materials without having to dismantle tank and pump from the truck body.

DREDGE OF FOUR-COUNTY COMMITTEE

By R. Vannote

The Four County dredge in the Upper Passaic Valley, which was visited on July 22nd by the Eastern Association of Mosquito Control Workers, has just completed its thirteenth month of operation. The dredge, which was designed by Robert L. Vannote, Secretary of the Four County Committee, has proven to be the most essential piece of equipment for the particular job.

The barge on which the dredge equipment is mounted was built in three sections because of the need for getting equipment through the bridges. (Twice during the last three months it was dismantled to pass under two highway bridges). The pump is a 10" Ellicott hydraulic pump, driven by a 150 H.P. Speedway engine. There are two auxiliary 32 H.P. LeRoi engines - one powers a five-drum hoist which operates the shore lines, cutter depth and two spuds, and the other engine rotates the cutter on the end of the cutter ladder. The cutter ladder is 20' long and capable of excavating to a depth of 12'. On each swing of the dredge a 12" cut is made, approximately 24" wide.

During the thirteen-month period from late June, 1940 to the end of July, 1941, 10,700 linear feet of river channel has been cleaned, excavating 103,419 cubic yards of material. One must realize, of course, that during this time the machine was not operating continually because of such hazards as ice, sub-zero weather, moving, dismantling for bridges, and minor breakdowns. Under normal conditions the dredge is capable of excavating 600 cubic yards of material in an 8-hour day.