quiries among other engineers, or entomologists through other entomologists, etc.

From these inquiries it will be possible to select several potential candidates who seem to be qualified. The backgrounds of these individuals can then be discussed by the board of trustees and a preferred selection made. When this has been done the candidate of choice can then be invited to discuss the project with the trustees, and a schedule of work and a schedule of fees and expenses agreed upon. In this discussion the trustees will have the opportunity to consider the personality of the consultant under consideration. This is important, for regardless of his professional stature or his unique technical skills, an unpleasant personality may endanger good relations with either the trustees, or with the employees of the district with whom the consultant must work.

The agreement should be drawn up carefully and in such clear terms that there is no possibility of misunderstanding. It is usually advisable to have this approved as to legality and form by the attorney for the district. If a written report is desired, this should be specified.

Do not be hasty in retaining a consultant. Take sufficient time to be certain that you have a thoroughly qualified man. Once you have made the decision, see that everything possible is done for his convenience and to expedite his work.

The report or advice of the consultant is not binding upon the board of trustees. The board may accept all the recommendations, or part of them, or reject them en toto. But if there is disagreement with the consultant's recommendations, be sure that there are valid explanations for decisions ultimately reached by the board. Above all, since you will have paid good money for the services of your consultant, don't put his report away in a file and forget about it.

A WEED-BURNING ATTACHMENT FOR AN INSECTICIDE MIST BLOWER

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Weed control, as an adjunct to mosquito control, is often conducted as a wintertime project when larviciding equipment is not in use. In consideration of such a work schedule, the Colusa Mosquito Abatement District has developed

FIG. 1.—Weed burner mounted on mist blower.

an inexpensive diesel weed burner (Fig. 1) for use with a mist blower, that could be made available in the off season. The mist blower, similar to one described by Mulhern *et al.* (1961), is mounted on a jeep, and is powered by an auxiliary gasoline engine which drives a fan through a clutch coupling. A Hypropump, powered by the auxiliary engine, is usually operated at a pressure of 75 to 100 psi.

The air tube for the weed burner is a 10-foot section of 4-inch aluminum irrigation pipe. It is coupled to the outlet of the mist blower by means of an 8-inch to 4-inch reducer. The reducer and air tube are held in place by turnbuckle hooks. A cable from the side of the jeep supports the air tube, and a block under the mist blower muzzle fixes the air tube in proper position. Brackets are bolted to the jeep body to carry the tube when the equipment is not in use.

The output valve from the pressure pump is equipped with a quick-coupler so that the insecticide hose of the mist blower can be removed easily and a ¼-inch flexible fuel line substituted. Diesel fuel for the burner is carried through the line to an in-line gasoline filter (Fram PG 2-2PL-¼-inch) mounted on the air tube, and then through ¼-inch copper tubing to the nozzles.

Three nozzles are used (Fig. 2), including a ¼-inch Smith adjustable nozzle flanked by two ¼-inch Monarch F-97-SC nozzles equipped with the smallest orifices available (No. 550).

A 2-foot length of 6-inch stovepipe, notched and shaped to fit the end of the air tube, is bolted into place to form a combustion chamber. The combustion chamber muzzle is shaped to produce a restricted oval opening, and bypass flaps are formed in the chamber to divert most of the air. A 2-foot square of asbestos is suspended from the side of the jeep to shield the rear tire and wheel from heat.

To prepare for operation, the auxiliary engine is started, the fuel valve is opened to provide about 50 psi pressure, and the vaporized fuel is ignited. After a brief

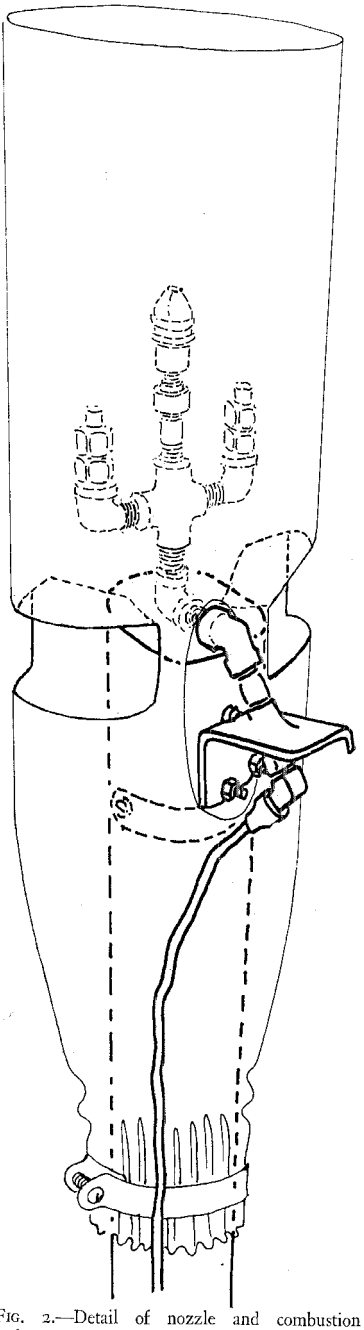

FIG. 2.—Detail of nozzle and combustion chamber.

warm-up the blower clutch is engaged and the unit is ready to operate. Under optimum burning conditions the Smith nozzle is shut off to conserve fuel.

This type of weed burner is simple to construct and requires a minimum modification of the mist blower. An important advantage of the unit is that it can be operated by the jeep driver, thereby minimizing labor costs. In three seasons of use by the Colusa District, the only maintenance necessary has been to replace the fuel filter and the combustion chamber.

Reference Cited

MULHERN, THOMAS D., LOPP, OSCAR V., and PETERS, ROBERT H. 1961. A utility mist blower for use on a jeep or pick-up truck. Proc. Calif. Mosquito Control Assoc. 29:146–8.

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