8. CANADIAN METHOD.

(1) No vertebral cut is made after splitting. Bacteriological tests of the flesh under the backbone of finnan haddie only forty-eight hours old gave positive cultures of trimenthylamine-producing bacteria in many cases.⁹

(2) The smoke is produced by burning hardwood, preferably beech or birch. The smoke is, consequently, not so dense and the process has to be continued for a much longer period of time, fifteen to eigenteen hours, when the fish is a rich golden brown colour, the edges almost brittle, and the fiesh in the middle thick portions still moist and searcely flavoured by the smoke.

(3) At times the fish are allowed to stand one to three days before enring, ostensibly to allow the blood to drain away, but this can be accomplished in one horr on ice, so that one fails to see the point of this lack of expeditionsness.

4. CONDITIONS ESSENTIAL FOR SUPERIOR PRODUCT.

The endeavour was made to determine, if possible, what were the optimum conditions for the production of finnan haddie *par excellence* on the coasts of the Canadian Maritime provinces. That these conditions would differ from the Scotch has been pointed out—for example, in the absence of peat as fuel, and the demands of distant markets; and under these latter circumstances a certain sacrifice of flavour to preserving property must be made, still, it is quite within the limits of possibility to so standardize the industry that these variable conditions would be allered to suit the 1 ouirements of the market for which the fish were destined.

These variable conditions aro:---

- (1) Time of the fish in hrine.
- (2) Quality of brine.
- (3) Quality of smoke.
- (4) Time of smoking.
- (5) Method of splitting.

5. SCIENTIFIC TESTS OF CURING METHODS.

Most of these conditions were varied in the tests described below. The record of the flavour of the different haddies when cooked was made from the opinions obtained from several individuals to whom were given samples of the various products.

Experiment 1.—The first haul of haddock were cured according to the method used by certain of the New Brunswick curers—except that here, as in each test, perfectly fresh fish and of approximately the same size were used. That the fish should be of the same size and weight is important, as a comparison otherwise would be obviously inaccurate.

Experiment 2.- The fish in this lot were smoked for varying periods of time, the salting being constant.

Experiment 3.-In this the conditions were reversed. Smoking time constant and time in the brine varied.

Experiment 4.—Small fish were used and both conditions were varied to produce a delicately flavoured lightly-cured fish.

Experiment 5.—In this the preservative value of the salt content of the fish is shown and its limit, as far as pulatibility is concerned.

Experiment 6.- In this the method is applied to the hake.

Experiment 7.-Proves the advisability of the dorsal incision.

² Bacteriological examinations were made by Dr. F. C. Harrison, MacDonaid College, and his report appears in the present volume of Biological Contributions.