

Correspondence.

The Editor does not hold himself responsible for the opinions of correspondents.
Correspondents must in all cases send name and address, not necessarily for publication.

Who Can Furnish This?

Editor CANADIAN DRUGGIST:

SIR,—Kindly tell me, through your valued journal, the formula of "Atwood's Jaundice Bitters," and by so doing you will greatly oblige,

Yours truly,
DRUGGIST.

Moncton, N.B., March 17th, 1896.

Appreciated.

Editor CANADIAN DRUGGIST:

DEAR SIR,—After having taken the course in optics at the Optical Institute of Canada, I wish to thank you for the opportunity given me to take advantage of it as you did. It came to me in a slack time, and I am sure if the druggists of Ontario knew what a mass of information on this subject could be accumulated in such a short time, and how intelligently it would enable them to handle a profitable "side line," not one of them but would take the course, and "not go it blind" on spectacle fitting hereafter.

Yours respectfully,
J. H. FLEMING.

A Timely Suggestion.

Editor CANADIAN DRUGGIST:

DEAR SIR,—During a conversation with Mr. Gibbard, president of the O.S.R.D., I was impressed with the fact that a far greater advance in the co-operation of the manufacturers of proprietary articles has been made than the trade was generally aware of.

The executive, I understand, will, within a few days, issue a new friendly list containing many additions, some of which are of very great importance.

I was also pleased to learn that the number of druggists in the association has been increased to six hundred and sixty-eight, and I am satisfied that if the retailers will adhere loyally to the agreement they have signed and assist the wholesale druggists and manufacturers who are working with them for the general good of the profession the day of triumph is not far distant.

Some important manufacturers have not yet seen their way to join us. This, I think, may be accounted for by the fact that many similar movements undertaken in the United States have signally failed, and I believe that the moment these outsiders are shown that we are all thoroughly in earnest they will join and assist us as far as in their power to gain our end.

My object in writing this letter is to make a suggestion to our retail friends which, if acted upon, I believe will have prompt and beneficial results.

It is this: When the next friendly list reaches them, if each druggist will note the leading manufacturers *not mentioned*,

and at once begin a correspondence with them, not using any threats, but suggesting that they miss their names from the friendly list, and that they think it would be to their interests to join us, the flow of letters of that tenor received by each manufacturer will show most effectually how much in earnest the retailers of this country are, and will, I believe, compel the outside manufacturers to capitulate, even if they only do it in self-defence.

FRIENDLY.

April 1st, 1896.

Cod Liver Oil and its Emulsification.*

By P. C. ARKLANDER

The codfish, said the author, appeared at Bergen, Norway, and farther north in the months of January and February, and was then caught in quantities of six to eight millions or more. Later, about March, the fish appeared at Lofoten, where sometimes over eight million were caught. Yet later, the fish went farther north to Finmark, where the catch was quite as large. About sixteen thousand fishermen congregated annually at Lofoten. The fecundity of the codfish was such that it had been estimated that if only one female fish escaped annually, and her eggs safely hatched, the species would be effectually preserved. This fact was less surprising when it was recollected that the ovary of each female fish contains no less than nine million eggs. As soon as possible after capture the fish were brought alive in a specially constructed tank to the shore, where they were sold to the tradesmen and manufacturers, or, what happened very seldom, the oil was extracted by the fishermen themselves on board. There were five varieties of cod-liver oil, namely: (1) That extracted by means of steam, or steam oil; (2) the ordinary medicinal oil, of a light yellow color; (3) the oil of a dark yellow color; (4) the brown medicinal oil; (5) the dark brown oil used by tanners and curriers to soften and preserve leather and skins.

1. In the preparation of steam oil the livers were subjected to the action of steam in pans, pressed and transferred to closed lead cisterns, where the oil was left to deposit stearin and other impurities. After one or two months the clarified oil was bottled. Merchants drew off the oil at as low a temperature as possible, to avoid stearin being afterwards deposited. This oil was almost water-white, and has very little taste or smell. 2. The light yellow oil was prepared by allowing the livers to remain in heaps, when the oil runs out by itself. It was evident that through this exposure to the air, lasting some weeks, the oil got somewhat rancid, and, of course, stronger to the taste and smell than the steam oil. Here, as elsewhere, the difference in the light yellow oils was due to the cleanliness observed and the casks used. Being prepared

*From a paper read before the Milland Chemists' Assistants' Association.

without heat, this oil contained very little stearin, and would stand a cold temperature better than the steam oil. Makers of high-class oils always kept the oil for some time in ice-houses to allow the stearin and palmitine to deposit. 3 and 4. These were the darker yellow and brown medicinal oils, and were prepared by pressing the livers and subjecting them to a low heat. 5. Currier's oil was obtained by letting the livers ferment, heating and then subjecting to strong pressure.

With regard to the emulsification of cod-liver oil, the author pointed out the many virtues of Irish moss, which contains about 70 per cent. of pectin or vegetable jelly, and had extraordinary powers of emulsification. The only disadvantage in its use was the liability of its solution to ferment under certain conditions; this might be got over by the addition of five per cent. of alcohol to the bulk, or a small quantity of elixir saccharini, which acted as a powerful anti-ferment as well as a sweetening agent. The formula he had found most satisfactory was:

Irish moss (picked) 1 drm.
Cold distilled water..... 5 ozs.

Allow the water to stand on the moss for one hour; then boil for 10 minutes, and strain through muslin, and make up to five ounces. To this, in a bottle, when nearly cold, add:

Cod-liver oil..... 8 ozs.
Alcohol..... 1 oz.
Water, to make..... 16 ozs.
Flavoring..... q.s.

Use a quart bottle, shake the mucilage well round the sides, and then add the whole of the oil, and agitate to form a nucleus; then add half the water, and lastly the alcohol, flavoring, and as much water as required to make up the quantity.

He could not see why such a preparation as an emulsion made by shaking together equal parts of the oil and lime water, and properly flavored, should not come into general use. The two drugs were separately prescribed largely for rickets and spinal diseases in children; also the presence of lime water would certainly help a delicate stomach to bear the oil. To completely mask the odor and taste of cod-liver oil would be worth much gold to any man. He had found oil of wintergreen very useful, though it was not much used in this country. Each of the following three formulae was sufficient for one pint of the finished product:

1
Oil of wintergreen 15 minims.
Oil of sassafras..... 15 "
2
Oil of wintergreen 20 minims.
Oil of bitter almonds..... 20 "
3
Oil of neroli..... 12 minims.
Oil of bitter almonds..... 12 "
Oil of cloves..... 2 "

Oil of lemon appeared to be of little use. Elixir of saccharin, he found, is very useful in bringing out the taste of the flavorings used.—*British and Colonial Druggist.*