

schools, the open-air school, etc., and children presented by the attendance officers. So that to introduce part-time men from outside for the purposes of treatment not only seems uncalled for but would greatly hamper organization and efficiency. How complicated the matter becomes you will see when I remind you that the whole-time inspector is fully entitled to examine more thoroughly all cases of deafness at the clinic, and should he find a running ear or an ear full of wax, he would apparently have to hand over the case to the general practitioner attending the treatment part of the clinic. Similarly, vision examination, including retinoscopy, is part of inspection; but how can you separate the examination from the prescription of spectacles?

From whatever standpoint viewed it seems clear that inspection and treatment must go hand in hand. It is difficult to think of anything of more importance at the present juncture than that the medical care and oversight of the children of our country should be in the hands of the best men and women our profession can produce. To condemn a man trained as a medical man has been, and with all his varied experience, to a life of inspection merely, and that, too, of a very monotonous kind, is quite unthinkable. If we are in earnest on the question of the physical condition of our children, we shall then endeavour to make the school medical service the magnificent instrument it ought to be, and is, indeed, capable of becoming. To do this, however, it will be necessary to weld together into one harmonious whole the carrying out of all the duties comprised under the heading of "school hygiene," including the detailed work of medical inspection of the children and the treatment of the defects and diseases found.

But you will ask me, and not without reason, where is this process of socialization of the medical profession to cease? Can we logically restrict it to those medical men who treat the poor, and the children in our national schools? No, I do not think that we can. But we need not trouble ourselves about that. The general medical practitioner will certainly last out our time, and probably that of our children's children. When education was nationalized, even though education was made free to all and sundry, Eton and Harrow did not cease to be. We all of us choose to pay for the education of our children, and most of us pay very heavily. This may be snobbishness, but it is snobbishness of which we are all alike guilty, and, judging others by ourselves, we may feel quite sure that so long as there are considerable inequalities in the distribution of wealth, so long will there be those who will choose to pay a general practitioner rather than accept the services of a State official. But of this I am equally certain, that in the near future the proportion of general practitioners and medical civil servants will be reversed; but the change will take place gradually, and if we have the foresight to direct its course instead of fighting against it, the change will prove an unmitigated advantage both to the profession and to the public.

Conclusions.

In conclusion, let me make a few practical suggestions for our immediate guidance.

1. It should be our endeavour to improve contract practice, as it is known to-day, off the face of the earth. There is absolutely nothing to be said in its favour; it has proved, and is still proving, disastrous for the public and for the profession.

2. In season and out of season we should advocate the scheme of the Minority of the Poor Law Commissioners, and condemn that of the Majority, which would indefinitely extend contract practice and perpetuate its evils.

3. We should strongly advocate whole-time appointments for medical officers of health, and for those who do the work of our education authorities. Men cannot serve God and Mammon. How can a medical officer of health condemn the insanitary property of his best patients? No man can afford to quarrel with his bread-and-butter. So wherever districts are too small or too poor to support whole-time officers, they should be grouped together for the purpose of so doing. And, as I have already shown, there are equally strong reasons why those medical men who serve the education departments should be whole-time officers also.

4. We should do our utmost to improve the position of those who already hold whole-time appointments, by endeavouring to increase alike their stipend and their security of tenure. It should be impossible for a man to be arbitrarily dismissed by a local authority, as is often done, because he does his work too well to please his employers; and, to secure this end, it should be made illegal for a local authority to dismiss any of its medical officers without the consent of the Central Education or Health Authority.

THE COMPOSITION OF SOME PROPRIETARY FOOD PREPARATIONS.

V.—COMBINATIONS OF MALT EXTRACT.

EXTRACT of malt is largely employed as a vehicle for the administration of other substances, and the combinations so formed must in some cases be classed as medicines and in others as foods, while certain of these preparations are on the border line and might be put in either class with equal propriety. In all such compounds, however, the malt extract is not used merely as a vehicle, but is of some importance as supplying a large proportion of soluble carbohydrates and an appreciable amount of soluble protein. Probably the substance most frequently ordered in combination with malt extract is cod-liver oil, and a very large number of different makes is to be found on the market; with nearly all of these, however, no information is given as to the proportion of cod-liver oil present—obviously a matter of much importance. We give here the results of the analysis of a few selected out of the many preparations of cod-liver oil and malt extract which are sold; those dealt with include three in which a definite percentage of cod-liver oil is stated to be present, and in one of these there is a very wide discrepancy between the amount so stated and the amount actually found. Several other compounds of which malt extract is the basis have also been analysed, and the results are given below. Malt extract itself having been shown in a previous report of this series to be very variable, especially in regard to diastatic activity, the digestive power of the extract contained in the articles in question was ascertained, except in the case of the dry preparations, or where the malt extract was present in amount too small to be of importance. In each case the characters of the fat or oil which was extracted were consistent with its being of the nature claimed, whether cod-liver oil, olive oil, milk fat, beef marrow fat, etc., but the identity of the fat or oil in each case was not determined.

VIROL.

This preparation is sold by Virol, Limited, London, E.C. The jar sold at 1s. was found to contain nearly 2 fluid ounces. It is described on the jar as a preparation of bone marrow. The directions are that Virol should be taken between or immediately after meals, adults commencing with a teaspoonful and increasing to a dessert-spoonful, and children commencing with an egg-spoonful and increasing to a teaspoonful.

Analysis showed it to contain:

Fat	...	...	...	12.3 per cent.
Reducing sugars, calculated as	...	...	...
maltose	...	...	...	59.0 "
Protein	...	...	...	2.8 "
Ash	...	...	...	1.6 "
Water	...	...	...	21.1 "

(The portion soluble in water possessed no diastatic power.)

MIOL.

This substance is prepared by the Miol Manufacturing Co., Limited, London, S.E. A bottle costing 1s. 1½d. contained 3½ fluid ounces. Miol is described as "a preparation of the richest diastatic malt, the finest product of the olive, free phosphorus, the active principle of certain seaweeds, and other nutritious substances, also the necessary properties for forming bone and muscle." The dose is given as one teaspoonful for children and two teaspoonfuls for adults, to be taken three times a day within an hour after food.

Analysis showed it to contain :

Oil	22.4 per cent.
Reducing sugars, calculated as maltose	41.3 "
Protein	2.3 "
Ash	0.8 "
Water	16.7 "
Diastatic power of water-soluble portion	2

Iodine was present in combination in small quantity. No free phosphorus could be detected; the ash contained some phosphate, which is always to be found in the ash of malt extract.

CREMALTO.

This is prepared by the Maltico Foods, Limited, Portsmouth. A bottle sold at 1s. contained 6½ fluid ounces. Cremalto is described as "a scientific combination of pure sterilized Devonshire cream." The dose is given as one or two teaspoonfuls on rising and after each meal.

Analysis showed it to contain :

Fat	11.7 per cent.
Reducing sugars, calculated as maltose	56.3 "
Protein	4.1 "
Ash	1.3 "
Water	26.7 "
Diastatic power of water-soluble portion	6

(A trace of boric acid was present.)

MALTICO.

This is prepared by the same company. A bottle sold at 1s. 6d. contained 6½ oz. This preparation is in the form of a powder, and is described as "a perfect infant food." The quantity to be given at one time is stated to be from one to six teaspoonfuls, according to age. Analysis showed it to contain :

Fat	3.9 per cent.
Reducing sugars, calculated as maltose	66.5 "
Protein	16.8 "
Ash	4.6 "
Water	3.6 "

(No starch was present.)

OVALTINE.

A preparation with this name is sold by A. Wander, Berne and London, the price of a tin containing about 9 oz. being 1s. 9d. It is a granular powder, and is described as being "composed of Malt Extract, Fresh Swiss Cow's Milk, Fresh Eggs, and Converted Cocoa, and containing Active Lecithin." One or two teaspoonfuls are directed to be mixed with milk or milk and water to form a cupful of beverage.

Analysis showed it to contain :

Fat	12.3 per cent.
Reducing sugars, calculated as maltose	60.0 "
Nitrogenous substances, calculated as protein	13.4 "
Ash	3.5 "
Water	1.5 "

A very small quantity of free lecithin was found, and the presence of egg substance was also indicated by a small amount of sulphur in organic combination.

BYNOL.

This preparation, made by Allen and Hanburys, London, and called also "Allenburys" Malt and Oil, is sold at the price of 2s. for a bottle containing 9½ fluid ounces. The dose is given as one teaspoonful, gradually increased to one tablespoonful, to be taken three times a day with or immediately after food.

Analysis showed it to contain :

Oil	12.9 per cent.
Reducing sugars, calculated as maltose	52.2 "
Protein	4.6 "
Diastatic power of the extract present	22

BYNIN EMULSION OF COD LIVER OIL WITH HYPOPHOSPHITES.

This emulsion, made by the same firm, is sold at the rate of 2s. 6d. for a bottle containing 10½ fluid ounces.

The dose is stated to be two to four teaspoonfuls for children, and one to two tablespoonfuls for adults, three times a day after meals.

Analysis showed it to contain :

Oil	34.6 per cent.
Reducing sugars, calculated as maltose	9.0 "
Protein	1.2 "

(Hypophosphite was present in very small quantity.)

TROMMER'S MALT EXTRACT AND COD LIVER OIL.

This compound, prepared by the Trommer Company, Limited, is sold at the price of 2s. 6d. for a bottle containing 9½ fluid ounces. The dose is stated to be for adults a tablespoonful, for children a teaspoonful or less, according to age.

Analysis showed it to contain :

Oil	29.9 per cent.
Reducing sugars, calculated as maltose	41.4 "
Protein	2.4 "
Diastatic power of the extract present	35

STANDARD MALT EXTRACT AND COD LIVER OIL.

This is prepared by the Standard Malt Extract Company, Liverpool and London. A bottle containing 4½ fluid ounces costs 1s. 3d. The dose for an adult is stated to be one teaspoonful twice a day, increasing to two teaspoonfuls; for children, half the adult dose. On the outer package it is stated that "Standard Malt Extract and Cod Liver Oil contains 25 per cent. of the finest Norwegian Cod Liver Oil."

Analysis showed it to contain :

Oil	4.1 per cent.
Reducing sugars, calculated as maltose	64.0 "
Protein	5.6 "
Diastatic power of the extract present	74

DIAMALT WITH COD LIVER OIL.

This is prepared by the British Diamalt Co., London, S.E. A bottle costing 1s. 6d. contained 11 fluid ounces. The dose was given as a teaspoonful to a dessertspoonful three times a day. The preparation was described on the label as "containing 15 per cent. of Cod Liver Oil."

Analysis showed it to contain :

Oil	16.6 per cent.
Reducing sugars, calculated as maltose	51.0 "
Protein	5.1 "
Diastatic power of the extract present	592

MALTINE AND COD LIVER OIL.

This preparation is sold by the Maltine Manufacturing Co., Ltd., London, W.C., at the price of 2s. for a bottle containing 8½ fluid ounces. The dose, for adults, is stated to be from a dessertspoonful to a tablespoonful three times a day; children in proportion. It is stated on the label that "Maltine with Cod Liver Oil contains 30 per cent. by volume of Cod Liver Oil."

Analysis showed it to contain :

Oil	22.7 per cent.
Reducing sugars, calculated as maltose	41.4 "
Protein	3.8 "
Diastatic power of the extract present	284

(22.7 per cent. of oil corresponds to 30.6 per cent. by volume.)

KEPLER SOLUTION OF COD LIVER OIL IN MALT EXTRACT.

This solution, prepared by Burroughs, Wellcome, and Co., London, E.C., is sold at the price of 2s. for a bottle containing 9 fluid ounces. The dose is given as a teaspoonful, increasing to two dessertspoonfuls or more.

Analysis showed it to contain :

Oil	17.4 per cent.
Reducing sugars, calculated as maltose	42.5 "
Protein	3.4 "
Diastatic power of the extract present	3