

women folk, and without exaggeration I feel safe in saying that at least 1 in 10 showed a thick neck. I was told, 'Oh yes, but that is physiological!' If so, the physiology of the females here is something different from those in Britain. Very soon I was satisfied that it was a pathological problem on a large scale that was occurring, and every day strengthens that belief. The condition is so common here that it is regarded lightly or unnoticed. In the pathological museum I found specimens of two fish taken from the Acclimatisation Society's hatcheries at Opoho in 1891 and 1892, which both show goitres such as Marine describes.

The other day I happened to be lecturing to my class on this very subject of goitre and I referred to the American piglets. At the end of the lecture a student came up and asked me the dose of Iodine that had been given to the sows, as recently a very similar condition had occurred amongst sheep on a farm some way south of Dunedin. That is the first instance I have heard of in N.Z. of this deficiency disease amongst sheep, but I have little doubt there are other instances which will come to light in due course. I have perhaps in some measure justified the title of this Address with regard to animals in N.Z. but what about the humans? In this connection certain questions at once arise—(1) Why are women especially affected? (2) Why are not all women affected? (3) Is the offspring likely to suffer? In answer to the first, women ask more of their thyroids, especially at certain times such as pregnancy, and the gland responds normally or abnormally, depending on its supply of raw material which may be deficient, or altered by various factors. The first abnormal response is the beginning of a goitre. (2) Only a proportion, but a large proportion of women are affected because individual conditions vary considerably and probably here we are dealing with a relative and not an absolute deficiency or disturbance. (3) The offspring is undoubtedly affected, directly or indirectly, by anything interfering with the health of the mother. The exact amount of damage to the future generation in N.Z. by this prevalence of goitre cannot as yet be estimated, for we have not the data as yet, but judging by analogy the possibility of deterioration is great.

Suggestions.—What is one to suggest to combat this menace? The first thing is accurate observation and research on the data available here, but from the extensive researches mainly in America the basic fact seems to stand out that we are suffering from a wide-spread deficiency disease, a deficiency primarily of Iodine—whether in its mode of intake or mode of utilisation in the body I cannot tell you. Acting on this assumption, Marine, who has done so much of the fundamental work on goitre, recently examined the necks of some thousands of school girls in the goiterous districts around the Great Lakes and he found over 50 per cent. with goitre. He gave courses of Iodine to both normal and goiterous children and found, as compared with controls, that the condition was prevented or arrested. So far these observations are merely experimental, but they are very suggestive.

But clearly understand that this experimental administration of Iodine is a preventative measure for arresting the goitre at its initial stages. When it is fully developed Iodine may be a harmful drug and in any case the time is probably past when it can be of any use.

Whether the result of investigation into goitre will show that a more hygienic mode of life is all that is required for avoidance of this goitre, or that some deficiency, such as I have indicated, exists in the food intake, can only be decided by carrying through the investigation. A priori, one would be inclined to think that something more than hygienic measures are required in N.Z., for here the conditions are similar, but generally better than those in the Old Country, while goitre is infinitely more common here.

The motto of this Society is "To help the Mothers and save the Babies." How well it is living up to that motto all the world now knows and your Report gives some idea of the immense benefit that is resulting in all countries from the principles and practice initiated here in Dunedin. Its aim is to give the children the best possible start, and, so far as it goes, it succeeds admirably. But more is required. We here in N.Z. are too prone to take knowledge second hand and try to apply it to our conditions without first investigating these conditions. We have here a virgin soil for research in many directions, and if we are to advance we must probe our problems