

on the other side of the river Aar. As a result, the percentage of cases of goitre among the school children in the village, diminished as follows:

In 1885, 58% affected      In 1886, 44% affected

In 1889, 25% affected      In 1895, 11% affected

Other examples almost as strong as this can be collected showing the relationship between the drinking water and endemic goitre.

As to what in the water leads to the disease, observations have so far led to negative results. The presence of chalk and magnesia has often been suggested, but numerous wells and waters rich in chalk and magnesia are found unassociated with goitre, and some of these, indeed, are found when drunk to be beneficial and to be associated with diminution in the size of the enlargement. Several notorious goitre wells are completely free from these substances. The same is true with regard to waters containing sulphate of iron and copper, while feeding animals with various salts and metals has never been found to lead to the development of the condition. Of minerals, iodine has more especially of late years been suggested as associated with the condition, for Baumann's observations have shown the remarkable iodine-containing body present normally in the colloid substance of the thyroid. But even with iodine, there are several valleys and regions where the water is rich in it and yet goitre does not occur, and contrariwise iodine free springs are more common throughout the world than those containing iodine, and the majority of such springs are unassociated with the development of goitre. In fact, every individual chemical constituent of the water would seem to have been at one time or another studied and suggested as of possible etiological moment in this disease, and every one in turn upon further study has been found to have no relationship. This being the case, we are thrown back upon the possible existence in the water of some living organism.

Can we regard ordinary goitre as being of infective origin? In favor of such a theory not a few facts have been brought forward. Notably there is in addition to its curiously endemic nature, the infrequent but well-established occurrence of a sudden development of the condition in an epidemic form in large bodies of men, troops, etc. Thus Valentin recorded an instance in an infantry regiment which had for 5 years been established at Caen, and then went to Nancy. Here goitre had never been endemic and sporadic cases were rare. The regiment was for some little time at Besançon, and there only had come into contact with goitrous individuals. Within a few months no less than 38 members of the regiment showed goitre. During the next four years the number increased, 205 in 1784, 425 in 1785; and so on until altogether 1,009 soldiers of the regiment were affected, while the other troops in garrison there, with the exception of an occasional case in