a really 'good' boy is morally precocious or diseased. This view does not lower one's estimate of a boy's virtues, but accents those that are suited to his years, as well as the importance of the gradual and timely appearance of the several instincts and emotions without which civilization would be impossible.

HEALTH MATTERS.

Chest-Expansion and Consumption.

IN *Science*, ix. No. 221, we gave a *résumé* of the views held by G. W. Hambleton, licentiate of the King's and Queen's College of Physicians, Ireland, on the origin and prevention of consumption. These views were presented last year at a meeting of the British Association for the Advancement of Science. Since then Mr. Hambleton has been engaged in certain experiments upon this important subject, and during this research his attention has been drawn to the fact that the size and shape of the human chest vary according as he varied its conditions. So constant was this variation as to make him doubt the present accepted theory of the inheritance of chest-types.

Taking a well-marked example of the so-called inherited consumptive chest, he subjected it to conditions that tend to develop the lungs, till it corresponded in size and shape, first with the town artisan, then with that of a man of the privileged class, and finally with that of a man of the best class of insurable lives in America. By subjecting the same chest to conditions that tend to reduce the breathing capacity, he brought it back through the same types to nearly that with which he commenced; and he claims to have produced similar results in other chests within a period measured by months. At birth the average male child of all classes has the same type of chest, but at maturity he has that of the class to which he belongs. The types of chest, Mr. Hambleton claims, vary with the conditions to which these types are subjected. Thus we have the type of chest of those who use wind-instruments, and another type of those who compress their chests in their work or by a corset. In these no one raised the question of inheritance. This variation of the chest is not peculiar to it: it is true of all other parts of the body. The shape of the head may be altered by direct pressure, and the shape and size of the feet in the same way.

According to this theory of Mr. Hambleton, the type of man after birth is solely produced by the conditions to which he is subject: hence the formation of race by man's continuance under the same conditions, and its subsequent divisions into sub-races and families by his migrations into new conditions and the minor differences therein. The field which is opened up for investigation by these views is, as Mr. Hambleton states, a wide and important one. When we have ascertained what the conditions are that produce these differences in man that together make a class or type, we shall be able to produce that class or type; and we shall also be able to tell what type of body is best suited for a given occupation, and for residence in a given country. "Then we shall train men so that we shall no longer send them into occupations with types of body unfitted for the conditions of that occupation, and consequently we shall be spared the misery and loss of those numerous breakdowns from unsuitability of type that are now daily brought before us."

These views have been referred to a committee of the association, with instructions to investigate them; and in a letter which we have received from Mr. Hambleton, he requests that they be thoroughly tested by scientific men in this country. It will, we are sure, be apparent to our readers, that, if all that is claimed for these opinions is true, a most important and valuable contribution to human knowledge has been made; and, if the practical results which are stated to have been obtained in isolated instances can be made general, the improvement in the human race which is certain to follow will be beyond all computation. We shall be glad to open our columns to those who desire to discuss the question, or have any facts bearing upon it.

FOODS CONSUMED IN WINTER. — In no particular does the difference between the customs of the people of the present day and those of their forefathers show itself more distinctly than in the amount and character of the food which they consume during the winter months. The diet of fifty years ago was characterized by simplicity, and want of variety: that of to-day is just the opposite. This is largely due to the improvements in the processes of food-preserving, by which every form of plant and animal life is as available at one season of the year as at another. Some of these processes are so simple that there is no reason for substituting questionable methods for them, while others require so much time and attention that packers are constantly on the alert to discover a way to shorten the time and lessen the necessary watchfulness. With this object in view, chemistry is often appealed to, to solve the problems which are constantly presenting themselves. It is in this way that chemical products of various kinds find their way into the food-supply. The improvement which takes place in coffee when it is transported in sailing-ships is, now that a quicker method of transportation is employed, counterfeited by polishing and coloring; and to avoid the trouble of long treatment by heat of some vegetables and fruits, and their consequent deterioration in appearance, preservatives of various kinds are employed. One of the most commonly used of these is salicylic acid. The effect of this acid upon health has been thoroughly investigated in France, and its use in foods and drinks has been prohibited in that country since 1881. Prof. E. H. Bartley, of the Long Island College Hospital, Brooklyn, has recently examined this question with great care, and in an article which appears in the *American Analyst* his views and those of other authorities are given in full. In the use of this acid in the treatment of rheumatism, clinical observation shows that it cannot be continued for a long period of time without impairing digestion, and in its elimination it passes out undecomposed through the kidneys. It has been recognized that under these circumstances it not only irritates but inflames these organs. In preserved food we have to do with smaller quantities of the acid, as a rule; though that this is not always the case is shown by Professor Bartley's figures. He says, "The quantity of salicylic acid usually employed in wines is from six to eight grains per gallon, and in beer from twelve to fifteen grains per gallon; or, in the case of beer, from one to one and a half grains to the glass. As many men habitually drink twenty-five glasses during the day, they take from twenty-five to thirty-seven grains of the acid per day. The medicinal dose is usually stated to be from ten to twenty grains." He also calls attention to the fact that nursing mothers are frequently recommended to drink ale, porter, or beer, with the idea that it stimulates the mammary gland, and to the additional fact that temporary renal disease is frequent during the first weeks of lactation. In conclusion, Professor Bartley says, "I should state that another serious objection to the use of salicylic acid is the fact that many samples found in the market contain more or less carbolic acid. It is now almost entirely manufactured from this very poisonous substance, and, unless great care is exercised, an appreciable amount of it is left in the finished product. Indeed, some writers think that some of the fatal accidents recorded from the use of salicylic acid have been due to the presence in it of carbolic acid. If the use of this acid is to be countenanced, impure articles will be used, and greater damage may be done than could come from the pure article. From a careful consideration of the whole subject, I am compelled to regard the use of salicylic acid in foods and drinks, and especially in lager beer, as at least open to serious objections. If it be harmless to healthy adults, the evidence of its deleterious action upon the aged and certain other classes of the community is too strong to be disregarded by sanitary authorities, and should prohibit its use for this purpose."

ETHNOLOGY.

Dwarfish Races.

A. DE QUATREFAGES has recently published an historical review of the ancient and modern reports on dwarfish tribes. While formerly the descriptions of ancient geographers were considered not trustworthy, many of them have been confirmed by recent explorations. Among these are the tales on the pygmies. Aristotle and Pliny state that a dwarfish people lived near the swamps of the upper part of the Nile. De Quatrefages considers this tribe identical with Schweinfurth's Akka, who at the present time live a little farther south. Pomponius Mela mentions dwarfs who inhabited the neighborhood of the Red Sea. This report was confirmed by