

Civilized man does not waste his food so much; he does not need to do so much chewing and tearing. In the only animal that can be compared with man, the dog, similar changes are taking place, and these changes of domesticity are coincident with the changes occurring in civilized man. Another factor also influences these changes. There are many race types with different jaws and different teeth. No races are pure considered from this standpoint, but all races are intermixed. It is safe to say that every one of the English-speaking races has some primitive race element in them. Every one of the Teutonic races and every one of the Eur-African races have the same elements in them, and also the Eur-Asiatic. These races have different types of jaws, different sizes of teeth; from their mixture comes the so-called Aryan race. These people are subjected to a new environment. It is therefore a duty to study how far in one case removal of the teeth in a certain type might be a benefit in correcting irregularity, and how far in the other it might be injurious, and deal with the question from that standpoint. It can not be dealt with in a general way, but the individual conditions to which man is exposed must be studied. There is much nonsense talked about the degeneracy of the teeth. This is usually ascribed to luxury. The degeneracy is often an expression of the advance of the human race. When man gets fewer teeth, then there would not be so much irregularity, nor so much trouble in other directions.

INFECTIOUS DISEASES.*

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A knowledge of the possibility of transferring infectious diseases from one patient to another by means of instruments or otherwise, and of the character of the infection itself, is of the greatest practical value. While the necessity for proper precautions to avoid these accidents has long been recognized, the recent advances in the bacteriology of the mouth and throat cause the subject to assume new importance.

Of all diseases in which the infection is frequently carried from the mouth of one patient to that of another, perhaps the most important is syphilis. In this affection two different lesions are formed in or about the mouth, each characteristic of the disease, and appearing at different periods in its course. The primary sore is frequently to be found upon the lips or within the mouth. This is especially true in children. The mucous patches of the secondary stage are usually seen in the mouth, where their seat is on the inner surface of the lip, the tongue, the palate, or the fauces. In size they are from an eighth to half an inch in diameter, and while they extend superficially they are never deep. They are whitish in color, with rounded edges and raised rather than depressed. These two lesions are the sources of most of the infection, which causes new cases of the disease, the virus being carried by actual contact, surgical instruments, household utensils or other accidental means; and to unaccustomed observers they may be overlooked or neglected, or considered harmless because their true character is not recognized.

The frequency with which these conditions occur and the great danger attached to them should warn every oral surgeon to be ready to recognize them and to take proper precautions to protect himself and others.

Modern research into the bacteriology of the mouth and throat has suggested new possibilities in the matter of carrying infection from patient to patient.

The discovery that the germs of scarlet fever and diph-

theria may be found in perfectly healthy mouths and throats, and the fact that these germs remain in the mouth and throat for long periods after the clinical signs of the disease have disappeared, suggests the probability that these diseases may be transferred from patient to patient by unclean instruments. Well proven instances of this kind are indeed rare; yet this mode of infection is worthy of attention.

The germs of diphtheria are sometimes found in tooth cavities or in a healthy throat, and although they may not cause the disease in that individual because of his natural resistance, when carried to the mucous membrane of a susceptible person they may produce the disease in a virulent form. The bacillus of diphtheria may be the cause of all grades of sore throat, from a simple acute catarrh to an intense membranous inflammation extending into the nose and mouth; so that the true nature of a sore throat may not be recognized and the bacilli spread from patient to patient on septic instruments as is so often done by infected spoons and forks.

Diphtheria bacilli usually remain in the throat two weeks after the membrane has disappeared, but have been found five or six weeks afterwards in some cases. The infectious nature of purulent discharges following scarlet fever, such as a rhinitis or pharyngitis, are now fully recognized, so that, if after one of these infectious diseases catarrhal inflammations are present, the necessary precautions can be taken to prevent new cases of the disease.

In the same manner, erysipelas, which begins so often at the juncture of the skin and mucous membrane, and pus cocci from suppurating processes in the mouth may be transferred from patient to patient; and it is easily conceivable that the bacillus of tuberculosis could be taken from the mouth of a tuberculous patient on dental instruments and be deposited in the mouth of another patient and then find its way into the lungs.

DISCUSSION.

DR. VIDA A. LATHAM, Rogers Park, Ill.—This is a subject that is scarcely touched upon by dentists, but in connection with the physician we can accomplish a great deal in this direction. Many cities have a quarantine law, and in that way we can control these diseases in large cities, but it is more difficult where a physician is allowed to use his discretion in placarding a house. There is a great latitude in that method. If a physician is not perfectly honest and upright, he can probably be persuaded by higher fees or some other way to favor the family. A man will tell him that he has got to go to business, and the result is the physician does not quarantine the father of the family, and he goes to the bank or to his business without hindrance.

I have had two horrible cases of infection in little folks through the non-disinfection of instruments, more especially forceps. In one case that was referred to a specialist, a syphilitic lesion was caused in the upper jaw through the use of unclean instruments. In another case a woman contracted primary syphilis and as I did not care to be in a malpractice suit, it was referred to a specialist. The cause was using infected forceps in extracting her teeth.

In dental schools how many students are trained to see cases of syphilis in the oral cavities? They do not see them because they are not pointed out. I have only seen them, because I have practiced medicine and dentistry. Few dental schools make any effort to classify or make a clinic for such diseases. Unquestionably, students ought to study and know these conditions. Most of us, if we should see a case, would not recognize it. Therefore, I hope the teaching of surgical cleanliness will be broader and deeper in all its branches.

DR. GEORGE T. CARPENTER, Chicago—The ordinary practitioner will not recognize the conditions, particularly syphilitic lesions, and it is a very difficult matter, even where he suspects

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a case, to get a history of the case. Syphilis is a disease that is covered up, and sometimes the only thing the practitioner can do is to pursue syphilitic treatment in a case he suspects and the case will respond if his surmise is correct. We can not be too particular in regard to the absolute importance of sterilizing instruments. Less than a year ago I had a relative in my office who was having a little work done. He spoke of a slight abrasion at the corner of the mouth. I cleansed it and gave it some trivial local treatment and the incident passed from my notice. At the same time, I held the chair of oral surgery in one of our schools. A short time after that a brother, who was a medical student at that time, and who has since graduated, asked me if I had noticed William's mouth. I told him I had not specially noticed it. He said he wished I would notice it, as he himself was a little alarmed. He had been taking one of the preparations of mercury, and he believed he had secondary syphilis. If a person teaching these things will let them pass from under notice, what will the ordinary practitioner do? Consequently, I think we should be alive to the existence of these conditions, but above all we should pay strict attention to the sterilization of our instruments.

DR. A. E. BALDWIN, Chicago—The statement is made that cleanliness is next to Godliness, but I believe that cleanliness is Godliness, especially in the dental chair. I think we sometimes exaggerate the importance of the health departments of our large cities in regard to the transmission of many of these diseases. I think it is a question as to whether some of these diseases that are called infectious or contagious are really what the name implies. Where we find those conditions present in healthy mouths, for instance, tubercle bacilli, we find them often present in many mouths of perfectly healthy people. In many school-children we find those bacterial conditions are present in a perfectly healthy mouth. I suppose the only conclusion arrived at is that we must have a proper condition of the system so that the resistance is not great enough to throw off the effect of the systemic poison.

In regard to the use of cleanliness, it seems hardly necessary to speak of it, but I recognize the condition Dr. Carpenter speaks of, the busy practitioner omits to investigate some cases that he would investigate if his mind were not centered upon something else and his time limited. It requires a good deal of courage to acknowledge our shortcomings, but I think if the truth were told by all of us, some things fully as bad or even worse might be said than what the Doctor has told us. But the only thing to do is to fix the fact in our memory, that we must be very careful in everything that tends to the welfare of our patients, and that we must attend to the absolute cleanliness of our instruments, our hands, and our persons.

DR. JAMES G. KIERNAN, Chicago—There is a rather serious error in Dr. Baldwin's statement. In the first place, for infection, two things are necessary; a culture medium for developing the particular germ, as well as the germ. There is probably no healthy individual without pathogenic germs in his mouth. While he is immune under given conditions, those bacteria may be transmitted to another non-immune individual and the result continued indefinitely. The particular medium may be immune, but he continues the danger. That danger, however, has been met somewhat by the prevailing practice in dentistry of using antiseptic washes. There may be certain bacteria in individual mouths and those bacteria may not gain entrance into the system until after operation. This is the case with the streptococcus, the staphylococcus and other pathogenic bacteria. The existence of bacteria in a healthy mouth contains an element of danger greater than is generally recognized.

DR. VIDA A. LATHAM—I would like to emphasize a point brought out by Dr. Kiernan. I think we doctors and specialists should pay particular attention to the throats of children at school. How many children are allowed out under two weeks with an infectious or contagious disease? In England it is at least six weeks or until all the scabs and rashes have disappeared. Here, from climacteric conditions, measles, scarlatina, etc., would be rather light, but there the mortality is greater. In the case of scarlet fever it may be only a light attack, and the child may be back in school in two weeks! I know of a

child who had a light attack of scarlet fever, whose mother allowed it to play with other children, putting kid gloves on the hands of the child. Of course, there is danger of infection. I have a friend, a lady, who went to a house where there was a case of scarlet fever unknowingly until the mother told her that her little girl had the disease and also diphtheria. There was no placard, though under a physician. My friend went home, changed her clothing, then hurried to a dentist's office, where she had an appointment. That is where contagion comes from. I do not think children should be allowed out of quarantine to mingle with people as early as they are in Chicago.

DR. G. V. I. BROWN, Milwaukee—I remember last year a gentleman gave us a very scholarly dissertation upon this subject, and it set me to thinking a good deal. Since then I have tried to do a little missionary work, and during the last year I have given, at various times, before school boards and school committees and any who were interested in the subject, an illustrated discussion on this topic, in which I tried to enforce the value of care in this direction by having slides thrown from the lantern upon the wall, illustrating these different germs that we have been speaking about, particularly the diphtheria bacillus, the pneumococcus, and so on. I do not think I can do better at this time than to emphasize again the necessity of doing something more than talking these things over among ourselves. We all know the danger of infection. We are benefited by having the idea that cleanliness is next to Godliness impressed upon our minds, but if we would resolve ourselves into a committee of the whole, and go out from here and spread the information until we make school boards and those who have charge of the instruction and care of young people recognize the importance of these things, we would be doing a great deal more than we are doing here now. I have tried to make it strong in speaking of diphtheria by calling attention to the fact that Park View had an epidemic of diphtheria, and at least 1 per cent. of the children had these germs in the mouth. In Milwaukee we have had members of the medical profession, during an epidemic, examine the mouths and throats of children every morning before school began, but it seems to me that is a good deal like locking the barn door after the horse is stolen, because by the time the lesion is manifest, or the disease recognized, the child has already exposed more children than it would be possible for us to compute. The same is true, in a large measure, of tuberculosis. If one in every seven dies of tuberculosis, as has been stated by Dr. Senn, and many agree with him on that point, and the disease is so prevalent that it defies all our laws of sanitation, it seems to me the practical thing to do is to begin right in the mouth. In by far the majority of those cases of affections of the lungs, the bacilli are in the mouths of such people continually, and whatever care may be taken of the sputum of such people after it leaves the mouth, a little care taken before it leaves the mouth would be much better. It is a simple matter for public schools to have a large vessel at the door with some cheap antiseptic, and make it obligatory upon pupils to rinse their mouths before entering the school-room. I am certain we would do more to check diphtheria and influenza by checking these things than we can in any other way. I think it is well worth continually repeating until we are tired of it, or until we finally make the right impression upon the minds of the people in charge of our public institutions. We are not politicians, but if we can arouse the laity without politics by continually reiterating these facts before the people, we shall feel that our labors have not been in vain.

DR. A. E. BALDWIN, Chicago—I think a great deal of harm comes from posting notices. I know they would agree with me in many large cities. Here is a case of a child that has scarlet fever. That child was isolated from the household, and no one allowed to see it except the trained nurse; no one else ever went near it. Would it be right to isolate that whole building by putting a placard on the front door? They would not be incautious; they could not be affected at all by being in another part of the house. Does that little card, eight by

fourteen, offer any protection? Not at all. It does nothing of the kind. I agree with Dr. Latham that there should be a rigid enforcement of separation between those affected and those who are not affected, children as well as adults.

Speaking of what Dr. Brown has said, I do not think tuberculosis is dangerous to us as long as it is in Dr. Brown's mouth. It is not spread in that way. The only circulation it has is in the air or in food and drink, and the remedy he suggests would do no good in lung difficulties. If we could have any preparation to take into the mouth to destroy tubercle bacilli it would have no effect one-half hour later. I think there is such a thing as carrying this matter too far. Notwithstanding the isolation of these cases, we will find these Krebs-Loeffler bacilli in many mouths that are healthy, and we can not look into every mouth. That is impossible. When we admit that they may be found in the mouths of people who are perfectly healthy, we can readily see that isolation cuts no figure. I do not want anybody to misunderstand me; I do not want to throw open the door to every diphtheric case, but there are a great many things that we advocate that are really not as far-reaching as we think they are. They are not as effective as we think they are. I do not think that anyone who knows me can say that I have ever been an advocate of any chance or careless method in any way, shape or manner, but I do think we had better be a little cautious and know what we claim before we make any great claims for our belief. It is far from proven that many diseases that are called contagious or infectious are really so.

DR. G. V. I. BROWN—In the isolation hospital in Milwaukee, during an epidemic of scarlet fever, the patients were immediately placed upon a system of treatment which included the disinfection of the mouth with hydrogen dioxide and oxygen. The result was that out of one hundred cases there was not a single one affected by any of the various sequelæ that follow that disease. The suppurative process which very frequently is likely to follow that disease, and that almost invariably affects the middle ear, was entirely absent, and there is no question about the value and efficacy of that treatment, and it is now becoming an established factor in the treatment of other diseases. The same is largely true of typhoid fever and some modifications of that disease.

DR. ALICE STEEVES, closing the discussion—This paper has been the outcome of my own observation and experience. I have reason to believe that there has been infection from improperly cleansed instruments in several cases of which I had the care, and I thought it would be well to bring this matter up. In speaking of sterilization and cleanliness, I feel that especially in the schools ordinary cleanliness is not properly demonstrated to the students. We must have ordinary cleanliness before we can have surgical cleanliness.

THE TREATMENT OF CUTANEOUS CANCER.*

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The treatment of cutaneous cancer has been one of the most serious and difficult problems with which the profession has had to deal. The remedies, which at one time have been highly extolled, at another, severely condemned, are exceedingly varied in nature and innumerable in number. Two remedies which are received with much favor to-day, zinc chlorid and white arsenic, have been extensively used, the one for scores of years, the other for centuries. The use of these two remedies, in the hands of certain specialists, was attended, at least in selected cases, by eminently successful results; in others there was absolute failure, if not death of the patient.

Caustics were much in vogue in the treatment of cancer, until the recent advances in surgery were made

possible by the introduction of antiseptics and anesthesia. Since then the knife has been freely employed, and its use was gladly welcomed, with the hope that free and radical extirpation would assure a positive and permanent cure for a condition whose erstwhile therapy was exceedingly painful and of more or less doubtful

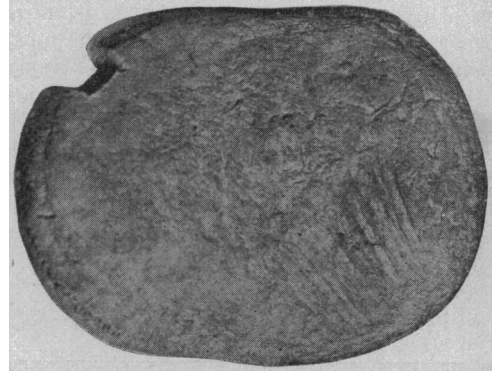


Fig. 1.—J. W. M. Photograph of piece of tissue removed from posterior border of scalp, measuring 3 1/2 x 2 1/2 x 1/2 inches, by means of paste, applied by a cancer-quack. Sub-epidermal surface, which is traversed by some muscular bands, removed from the underlying muscular tissues.

value. It is needless to add that our fondest hopes have not been realized, and after a rich experience covering a goodly number of years, the most sanguine must admit that the results have not been gratifying.

Coley¹ states that "however ardent advocates we may be of surgical intervention, to the exclusion of all

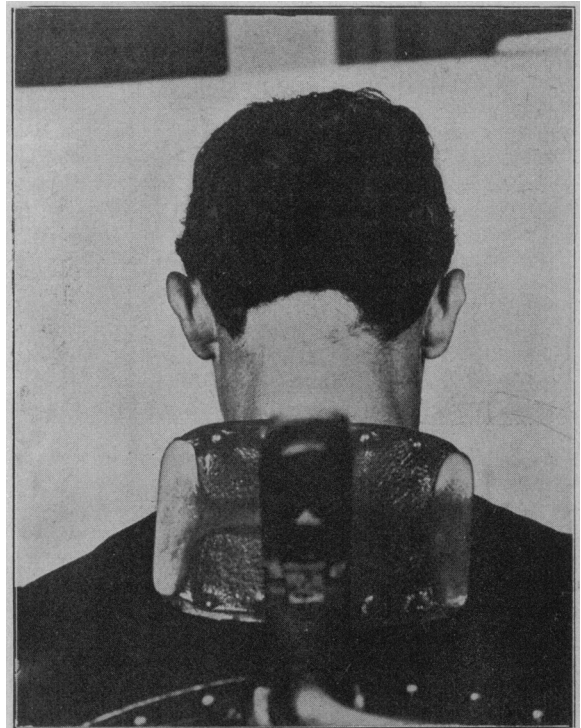


Fig. 2.—J. W. M. Cicatricial deformity resulting from the removal of tissue (see Fig. 1), by means of the cancer-quack's paste.

other methods in the treatment of cancer, we are nevertheless confronted with the fact, that at least 75 per cent. of all cases are, or at some time become beyond the reach of the surgeon's knife." William Watson Cheyne,² surgeon of King's Hospital, London, speaking of cutaneous cancer, states, "that the very removal of the local

* Read in the Section on Cutaneous Medicine and Surgery, at the Fifty-second Annual Meeting of the American Medical Association, held at St. Paul, Minn., June 4-7, 1901.

1. Wm. B. Coley: The Practitioner, 1899.
2. William Watson Cheyne: Ibid.