Abstracts

Education and Social Welfare

EUROPEAN SOCIAL ORTHODONTICS. HOWARD E. STRANGE. Amer. J. of Orthodont. 36:561, Aug. 1950.

This article gives a comprehensive report of the conditions that exist in several European countries, especially in regard to dentistry and the specialty of orthodontics.

The author suggested that a joint meeting be held between the members of the American Association of Orthodontists and the European Orthodontic Society, in Europe not later than 1953. BALDRIDGE.

FUNDAMENTAL CONCEPTS IN ORTHODONTIC EDUCATION. GERALD T. MILLIETTE. Amer. J. of Orthodont. 36:581, Aug. 1950.

This article gives a short review of the evolution of tooth form, and supporting structures. It also gives a short analysis of the carnivorous, herbivorous and omnivorous dentures.

The author stresses that the denture is a dynamic one, and a keen appreciation of this fact is essential in our orthodontic education. BALDRIDGE.

NUTRITION AND CONSERVATION. ALFRED P. ROGERS. Amer. J. of Orthodont. 37:1, Jan. 1951.

The author voices an earnest plea to make a determined effort to save the earth from threatened destruction even though we believe that the earth can be made to yield richer and more abundant harvests. Man has been squandering his green carpet. We must face the fact that our ever increasing population has a decreasing source of fertile land.

The hope of the future lies in the direction of agriculture and in the preservation of soils to the end that they may furnish an abundance of the nutritional elements that will give man the virility of body and mind which will let him appreciate the living earth. MCGONAGLE.

COMMUNITY ORTHODONTIC SERVICE. AUGUST L. WRIGHT. Amer. J. of Orthodont. 37:188, Mar., 1951.

The author discusses the program of the Philadelphia Mouth Hygiene Association as related to orthodontia. This program has been in operation twenty-two years. The paper is divided into various divisions and includes a description of the personnel (a dental hygienist, a clinical assistant, seven part-time orthodontists, and one non-staff consulting orthodontist) and the time spent in attendance, the patients, and the clinical procedure.

The latter is not unlike that followed in the average orthodontist's office. The orthodontist has benefited by having more experience and from the associations with fellow orthodontists. The greatest benefit has been to those patients who otherwise would never have had orthodontic treatment. MCGONAGLE.

Research

THE PERIODONTAL RESPONSE TO VARIOUS TOOTH MOVEMENTS. ROBT. E. MOYERS, JOSEPH L. BAUER. Amer. J. of Orthodont. 36:572, Aug. 1950.

In this article the authors review the different types of tooth movements and give a report on the histologic findings that occur in the periodontal membrane and the alveolar bone when these tooth movements are carried out with different types of appliances.

The authors state that distance and time can damage the periodontal membrane as much as sheer weight. "Ideally an appliance should operate over a distance of less than 0.2 mm. with a force of between 15 and 25 Gm. Further, it is desirable to have this an intermittent weight against the tooth in order that the periodontal membrane may enjoy period of recovery. Such an appliance does not yet exist."

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BALDRIDGE.

ANATOMY AND PHYSIOLOGY OF HEAD AND NECK MUSCULATURE. ALLAN G. BRODIE. Amer. J. of Orthodont. 36:831, Nov. 1950.

The writer states that the arrangement of muscles in the body is according to the best principles of energy conservation. We see a bilaterally symmetrical body which when viewed from the side shows a very unstable body skeleton kept erect by muscles. The balance of the muscles concerned with head position were discussed next along with the interaction of these muscles. The buccinator was discussed as to its role in arch formation and as the basic foundation of the lips. The next layer composed of canine and triangularis and the most superficial layer composed of levators and zygomaticus

were considered as to their various actions. The action of the mentalis was discussed and also the possibility of damaging effects which might occur when the contractions of this muscle are abnormal.

In conclusion, the close relationship between bone and muscle was shown and how the teeth and alveolar process are victims of a continuous interplay of muscular forces.

MCGONAGLE.

INVESTIGATION OF NEUROPATHOLOGICAL MANIFESTATIONS OF ORAL TISSUES. NEWTON W. MELLARS AND FREDERICK W. HERMS. III. A Further Study in the Mechanisms of Cause and Action Which Interrelate Psychogenetic and Other Transformation Changes. Amer. J. of Orthodont. 37:13, Jan. 1951.

The research covered is grounded on the possibility that emotional upsets are primary cause of a greater share of dental diseases. The authors set up three classifications for for emotions and describe the pathology that accompanies each. There is a lengthy explanation for the tissue changes that take place in emotional syndromes of long standing because of the interplay of the nervous and blood systems. It is also felt that it may be possible to demonstrate patterns of emotion by means of an electronic recording instrument which uses saliva as the testing medium. MCGONAGLE.

RELATIONSHIPS BETWEEN DENTAL ARCH WIDTHS AND WIDTHS OF THE FACE AND HEAD. HOWARD V. MEREDITH. Amer. J. of Orthont. 37:193, Mar. 1951.

There is a brief review of the literature pertaining to the relationship between palate width and upper face width. There was found to be little correlation in the present study between upper maxillary arch width and upper face width.

Similar conclusions were reached in the investigation of the relationship between maxillary arch width and width of the head, and the relationship between mandibular arch width and width of the lower face.

In other words, none of the relations studied were particularly useful to the clinician in orthodontic diagnosis and treatment. MCGONAGLE.

Therapy

ANKYLOSED TEETH. EDWARD I. SILVER. Amer. J. of Orthodont. 37:28, Jan. 1951.

A case study is presented of a child with a negative medical history who presented numerous ankylosed teeth. The affected teeth were removed and the resultant occlusion is shown years later.

The author states that if the ankylosed primary teeth begin to cause a displacement of the permanent successors they should be removed and space maintained.

MCGONAGLE.

TREATMENT PROCEDURES OF SIMPLE FORM WHICH HAVE PROVED THEIR WORTH. GEORGE M. ANDERSON. Amer. J. of Orthodont. 37:181, Mar. 1951.

The author first describes a method of correcting lingually locked maxillary incisors by using a removable plate which utilizes a finger spring. The bite is purposely opened to relieve occlusal interference and then reduced as the tooth reaches the desired position. The writer also uses a spring action in his removable mandibular retainers. A soldered spring on the lingual arch is also discussed. MCGONAGLE.

PSYCHOSOMATIC EVALUATION OF THE ORTHODONTIC PATIENT. ARTHUR S. ASH. Amer. J. of Orthodont. 37:205, Mar. 1951.

The author cites four case reports of maladjusted children and presents an outline for psychosomatic evaluation. He feels that it is the intensity and frequency of symptoms rather than their mere presence that is significant. MCGONAGLE.

THE SPLIT TUBE AND LOCK, AND SWIRL TUBE ATTACHMENTS. ALEXANDER SVED. Amer. J. of Orthodont. 37:174, Mar. 1951.

First issue discussed is that of the inherent tendency of teeth to move into their normal position. The author then describes two new types of attachments which he is using, the split tube and lock and swirl tube attachments, and shows the models of cases treated by both types of attachments. MCGONAGLE.

A CLARIFICATION OF FUNDAMENTALS PERTINENT TO THE TWEED CONCEPTS. F. COPELAND SHELDEN. Amer. J. of Orthodont. 37:157, Mar. 1951.

The author first believes that to practice orthodontia one must know what he is trying to attain and have a method to do so. He discusses at some length the evolvment of the Tweed philosophy and the desired orthodontic objectives. Considerable scientific research material is cited which the author feels coincides with the clinical observations and practices of Charles Tweed. Numerous cases are presented which have been treated both by retaining the full complement of teeth and also by the extraction of four bicuspids. MCGONAGLE.

CLASS I NEUTROCLUSION. ASHLEY E. HOWES. Amer. J. of Orthodont. 36:587, Aug. 1950.

This is a case report of a male 11 years old, showing models and orthographic projection maps before and after treatment, wax setup, composite maps of original models and wax setup, and an analysis of the tooth movements necessary in the treatment of the malocclusion. BALDRIDGE.

AN INSTRUMENT FOR MEASURING MUSCULAR FORCES ON THE TEETH. LOUIS FELDSTEIN. Amer. J. of Orthodont. 36:856, Nov. 1950.

The author briefly reviews the literature concerning the occlusionist theory as a means of creating a permanent result. From this point various men began to realize that the stability of the denture was dependent on more than just the occlusion. This led to present day thinking which believes that the teeth are in a state of equilibrium with various forces acting upon them from all directions.

The author has devised an instrument for the purpose of measuring the forces of the lips, cheeks and tongue upon the teeth. He describes the instrument and its method of attachment. A preliminary evaluation has been made and further study is in progress. MCGONAGLE.

THE IMPORTANCE OF THE TONGUE IN THE DEVELOPMENT OF NORMAL OCCLUSION. D. ROBERT SWINEHART. Amer. J. of Orthodont. 36:813, Nov. 1950.

The author states that from the time of eruption on, the environmental muscular forces become important in the development of individual arch form and the tongue is largely responsible for maintaining or increasing arch dimension. In abnormal swallowing, in which the tongue does not exert its expanding force, the effect on the arches is diminished. The benefits to be derived from proper tongue function cannot be expected if aid is not given long before adolescence when facial muscles have already largely matured.

The author presents numerous cases of children from seven and a half to nine years in which a lower lingual appliance therapy was instituted. The force exerted in all cases was governed by the degree of anterior crowding. This was used in conjunction with a high labial appliance.

This plan was used on the theory that natural reinforcement of lagging arch form development might be aided by the establishment of normal tongue function during this age period. The author states that basal bone and teeth have distinctly different laws of growth and development and that environmental forces play a big part in positioning crowns of the teeth.

In conclusion, the writer shows a case of congenital aglossia with a mandibular arch diminished in size as proof of the vital importance of normal tongue function. MCGONAGLE.

A RESTATEMENT OF THE MYOFUNCTIONAL CONCEPT IN ORTHODONTICS. ALFRED P. ROGERS. Amer. J. of Orthodont. 36:845, Nov. 1950.

The author stresses the individuality of the patient and states that the attempt to alter the growth pattern may not always be in the best interest of the child. The orthodontist must also be aware of proper nutrition, functional peculiarities, and mental maladjustments. The beautiful balance of the facial and neck musculature and its importance in maintaining an ideal occlusion was discussed.

There is an earnest plea for a return to basic facts and a proper understanding of biochemical and bio-mechanical principles so that we do not become mere mechanical thinkers. We should recognize the normal prognathism and not render the individual a victim of oral inadequacy by removal of teeth. MCGONAGLE.

EVOLUTION OF THE CONCEPTION OF DIAGNOSIS IN ORTHODONTICS. FEDERICO R. DE LA ROSA. Amer. J. of Orthodont. 37:35, Jan. 1951.

The author discusses the evolution of diagnosis through five stages from the time of no diagnosis to the type used at the present time which is based on sound scientific processes.

The first stage lasted many centuries before the esthetics diagnosis emerged. It was through the influence of Edward H. Angle that orthodontics was raised to the scientific plane the author describes as the occlusionist stage. The next phase featured the development of instruments usd for the purpose of relating the arches and teeth to the cranial component, and we see the development of such instruments as the "cranioform cube", the gnathostat, and the cephalometer. The geometric graphic diagram of such men as Hellman, Oppenheim, and De Coster, along with the investigations of Brodie, Margolis, and Whigley all gave great impetus to the scientific development of orthodontics.

The last stage of "rationalism" is a new concept of the norm which the author says has been established by Charles Tweed. He states 4 fundamental points of the norm.

The writer closes his review by paying tribute to each outstanding man who has furthered the science of orthodontia. MCGONAGLE.