Abstracts of Current Literature

Anthropology

THE EVOLUTION AND DEVOLUTION OF THE HUMAN FACE. ERNEST A. HOOTON. Am. J. of Orthodont. and Oral Surg. 32:657, Dec. 1946.

Beginning with the shark, Hooton traces the evolutionary ladder that modern man's face climbed. He notes that there are complex and interrelated factors in higher primate evolution making for decreased prognathism and shortening of the dental arches which have already begun at the level of the great apes.

The genesis of malocclusion and dental disease; the causes of modern facial retrogressions, and the probability of such retrogression being checked are discussed. It is concluded that man appears to be an animal that has entered upon a terminal and retrogressive evolutionary course as respects his teeth, jaws, face, brain case, and many other body parts.

LEWIS, DAYTON.

ANTHROPOMETRY AND ORTHODONTICS. ERNEST A. HOOTON. Am. J. of Orthodont. and Oral Surg. 32:673, Dec. 1946.

Anthropometry should assist the orthodontist by providing him with the evolutionary background of malocclusion; it should help determine the genetics of malocclusion and ecological conditions associated with it. Further, anthropometry ought to provide data showing the range of normal morphologic variation in man's jaws and teeth, and finally it should establish precise relationship between the positions of various teeth and other facial parts during growth and after maturity. Hooton states that the work of Broadbent and Margolis has contributed more to our knowledge of the growth of the face than has the combined work of all anthropologists to date.

Some of the problems of orthodontics such as the shape of the dental arches and their relations to face and head form; etiology and mechanisms of dental and facial growth; and norms of skull proportions and dental relations are brought out by the author. It is recommended that orthodontists organize and endow an institution for research.

LEWIS, Dayton.

Case Analysis and Diagnosis

FACTORS OF INFLUENCE IN PRODUCING A STABLE RESULT IN THE TREATMENT OF MALOCCLUSIONS. ROBERT H. W. STRANG. Am. J. of Orthodont. and Oral Surg. 32:313, June 1946. (See Technic and Metallurgy)

THE RELATIONSHIP BETWEEN RAMUS HEIGHT, DENTAL HEIGHT, AND OVERBITE. WENDELL L. WYLIE. Am. J. of Orthodont. and Oral Surg. 32:57, Feb. 1946.

This study was undertaken to test Diamond's contention that lack of proper growth in the vertical height of the ramus is responsible for excessive anterior overbite.

Lateral head plates were taken of 90 children prior to orthodontic treatment. The group was divided into those having slight, medium, or severe overbites. Measurements of condyle-gonion height, ramus height, molar height, total face height, and lower face height were obtained from their X-rays. Means and standard deviations were computed with the result that no significant difference was found between the three groups with respect to height of ramus. Thus, Diamond's view was not substantiated.

LEWIS, Dayton.

ON THE DIAGNOSIS AND TREATMENT OF "DISTOCCLUSION." GEORGE M. ANDERSON. Am. J. of Orthodont. and Oral Surg. 32:88, Feb. 1946.

It is believed by the author that many malocclusions diagnosed as distoclusions on molar arrangements are really not distocclusions if distocclusion means a mandible short in body and deficient vertically, or a full-sized mandible with the entire dental arch posteriorly placed on it. Frequently the maxillary teeth are mesially positioned.

Anderson raises the question as to what really happens when elastics are worn in a distocclusion case.

LEWIS, Dayton.

DIAGNOSIS AND TREATMENT PLANNING IN ORTHODONTICS. JOSE MAYORAL. Am. J. of Orthodont. and Oral Surg. 32:68, Feb. 1946.

An explanation is given of the records taken by the author before treatment. Datum is obtained from clinical history, gnathostatic models, dental X-rays, lateral head plates, photographs, and anthropological measurements.

The application of Mayoral's classification and records made in accordance with it to two clinical cases is outlined completely. Anomalies are classified into five groups by Mayoral; soft parts, jaws, temporomandibular joints, teeth, and occlusion.

LEWIS, Dayton.

THE FRANKFORT-MANDIBULAR PLANE ANGLE IN ORTHODONTIC DIAGNOSIS, CLASSIFICATION, TREATMENT PLANNING, AND PROGNOSIS. CHARLES H. TWEED. Am. J. of Orthodont. and Oral Surg. 32:175, Apr. 1946.

Tweed is gratified by the fact that his clinical findings bear a strong correlation to results obtained by outstanding scientific laboratory research. His attention has been focussed on the relation of the lower incisors to the medullary bone of the body of the mandible and the normal facial aesthetics and their deviations. The results of Brodie, Broadbent, Margolis, and Schour concerning tooth and facial growth are reviewed by Tweed.

By means of a Salzmann Maxillator, a lateral head X-ray, or profile photograph, Tweed has devised a method of detecting abnormal growth patterns and also of using such instruments for a classification of prognosis. The angle formed by the projection of the Frankfort plane and the tangent to the lower border of the mandible is used as the diagnostic point. Prognosis is excellent to good if the angle reads 16 to 28 degrees; good to fair if 28 to 30 degrees; fair to unfavorable, 32 to 35 degrees; and not favorable if over 35 degrees.

The article is replete with illustrations showing the method of prognosis.

LEWIS, Dayton.

ANTHROPOMETRY AND ORTHODONTICS. ERNEST A. HOOTON. Am. J. of Orthodont. and Oral Surg. 32:673, Dec. 1946. (See Anthropology)

ANOTHER CASE OF DISTOCCLUSION. MARK H. PERRIN. Am. J. of Orthodont. and Oral Surg. 32:279, May 1946.

In this case the author feels the mandibular position was not changed but the mandibular teeth moved forward en masse.

LEWIS, Dayton.

GNATHOSTATIC DIAGNOSIS. WILL G. SHEFFER. Am. J. of Orthodont. and Oral Surg. 32:602, Nov. 1946.

The office use of photography and gnathostatics is presented in this article.

LEWIS, Dayton.

A METHOD FOR RECORDING THE KEY RIDGE. SAUL M. BIEN. Am. J. of Orthodont. and Oral Surg. 32:619, Nov. 1946. (See Treatment and Retention)

SURGICAL TREATMENT OF DEFORMITIES OF THE JAW. KURT H. THOMA. Am. J. of Orthodont. and Oral Surg. 32:333, June 1946. (See Etiology)

CEPHALOMETRIC APPRAISAL OF A CLASS I MALOCCLUSION IN WHICH FOUR FIRST PREMOLARS WERE EXTRACTED AS PART OF THE TREATMENT PLANNED. BERCU FISCHER. Am. J. of Orthodont. and Oral Surg. 32:407, July 1946.

The illustrations and graphs used for case analysis at the beginning of treatment and for an appraisal of tooth movement at the end of treatment were obtained from oriented plaster casts, oriented facial photographs, and oriented mandibular roentgenograms. A complete outline is given of the case with respect to diagnosis, case analysis, treatment, and summary of results.

LEWIS, Dayton.

THE TREATMENT OF MALOCCLUSION WITH AND WITHOUT THE REMOVAL OF DENTAL UNITS. SAMUEL J. LEWIS. Am. J. of Orthodont. and Oral Surg. 32:518, Sept., 1946. (See Treatment and Retention)

Dental Caries

THE FAMILY AND DENTAL DISEASE. HENRY KLEIN. Am. J. of Orthodont. and Oral Surg. 32:530, Sept. 1946. (See Heredity)

THE PREVENTION OF DECALCIFICATION OF ENAMEL DURING ORTHODONTIC TREATMENT. ALEXANDER SVED. Am. J. of Orthodont. and Oral Surg. 32:373, July 1946.

Sved divides decalcifications into eight groups. Some can be prevented by proper home care by the patient, some can be prevented by proper band technique and periodic recementation. The one unpreventable type is really not decalcification but injury to the enamel through brushing.

LEWIS, Dayton.

Dental Hygiene and Public Health

A DENTOFACIAL STUDY OF MALE STUDENTS AT THE UNIVERSITY OF MICHIGAN IN THE PHYSICAL HARDENING PROGRAM. R. E. HUBER AND J. W. REYNOLDS. Am. J. of Orthodont. and Oral Surg. 32:1, Jan. 1946.

It was the intention of the authors to learn something about orthodontics in a population not selected because of any orthodontic interest. Five hundred male students were selected at random from a chosen population at the University of Michigan. The work sheet used in the examination is illustrated.

The ages were between 16 and 32. It was found that 19.4% had received orthodontic service; the average time of active treatment was 32 months; average time of retention was 15 months. In the opinion of the observers 50% of those receiving treatment had been treated successfully; 45.7% had been improved and 4.3% of the group did not have successful treatment.

Of the 500 students 8.6% presented without marked anatomical deviation from normal occlusion; 63.6% had Class I malocclusions; 4.8% had Class II, Div. I malocclusions; 10.8% had Class II, Div. II malocclusions; and 12.2% had Class III malocclusions. Openbite was found in all classes of malocclusion, and 2.8% of the entire group.

LEWIS, Dayton.

Education, Legislation, Economics

A BRIEF HISTORY OF THE SOUTHWESTERN SOCIETY OF ORTHODONTICS. PAUL G. SPENCER. Am. J. of Orthodont. and Oral Surg. 32:253, May 1946. (See Historical)

Endocrinology

*PITUITARY DWARFISM. I. P. BRONSTEIN AND EDUARDO CASSORLA. J. Pediat. 28:618, May 1946.

The diagnosis of pituitary dwarfism is made, with but few exceptions, by the exclusion of other causes of arrested development, rather than by positive proof. The positive diagnosis of this condition by visualization of an intrasellar or extrasellar tumor is rare. The diagnosis is, therefore, a presumptive one, based on the following clinical evaluations: (1) understature, (2) symmetric proportions, (3) sexual infantilism, (4) delayed epiphysial closure and (5) history of normal growth to about 2 to 3 years of age, with sudden deceleration in the rate of growth thereafter. The undersize is usually apparent by the fifth to the sixth year of life.

In the experience of the authors, the use of preparations of the anterior lobe of the pituitary gland, containing the growth-promoting principles, in children with various subnormal rates of growth has met with unsatisfactory results.

Their report is concerned with a case of seemingly spontaneous correction of presumptive classic hypophysial dwarfism during late adolescence in which the girl attained low normal height and complete sexual development. No treatment was instituted during the entire period of observation, which extended from June 1936 to February 1942.

* Presented by courtesy of *American Journal of Diseases of Children.*

The patient presented proportionate dwarfism, sexual infantilism and delayed osseous development, cardinal signs present in patients whose condition conforms to classic deficiency of the anterior lobe of the hypophysis (Lorain-Levi type).

The case illustrates progress without therapy; had treatment been instituted, the growth hormone of the anterior lobe would have been credited with the result. Since the patient answered all the criteria of deficiency of the growth and gonadotropic factors, her case may be looked on as an instance of remarkably delayed puberty that underwent spontaneous correction.

FROM THE AUTHOR'S ABSTRACT.

GROWTH AND TRANSFORMATION OF THE MANDIBULAR JOINT IN THE RAT. II. HYPOPHYSECTOMIZED FEMALE RATS. DANIEL A. COLLINS, HERMANN BECKS, MIRIAM E. SIMPSON, and HERBERT M. EVANS. Am. J. of Orthodont. and Oral Surg. 32:443, Aug. 1946. (See Growth and Development)

GROWTH AND TRANSFORMATION OF THE MANDIBULAR JOINT IN THE RAT. III. THE EFFECT OF GROWTH HORMONE AND THYROXIN INJECTIONS IN HYPOPHYSECTOMIZED FEMALE RATS. HERMANN BECKS, DANIEL A. COLLINS, MIRIAM E. SIMPSON, AND HERBERT M. EVANS. Am. J. of Orthodont. and Oral Surg. 32:447, Aug. 1946. (See Growth and Development)

THE HORMONES OF THE ANTERIOR PITUITARY. HERBERT M. EVANS. Am. J. of Orthodont. and Oral Surg. 32:472, Aug. 1946.

Early methods of investigating the secretions of the anterior pituitary are described by the author as well as the various hormones themselves. Growth, thyrotropic, gonadotropic, adrenotropic, and lactogenic hormones are all developed from the anterior pituitary.

LEWIS, DAYTON

Etiology

A DENTOFACIAL STUDY OF MALE STUDENTS AT THE UNIVERSITY OF MICHIGAN IN THE PHYSICAL HARDENING PROGRAM. R. E. HUBER and J. W. REYNOLDS. Am. J. of Orthodont. and Oral Surg. 32:1, Jan. 1946. (See Dental Hygiene and Public Health)

THE EVOLUTION AND DEVOLUTION OF THE HUMAN FACE. ERNEST A. HOOTON. Am. J. of Orthodont. and Oral Surg. 32:657, Dec. 1946. (See Anthropology)

SURGICAL TREATMENT OF DEFORMITIES OF THE JAW. KURT H. THOMA. Am. J. of Orthodont. and Oral Surg. 32:333, June 1946.

The deformities considered are mandibular protrusions, open-bite, and mandibular retrusions. The surgical treatment of these deformities, and deformities caused by early ankylosis is outlined by the author.

For mandibular protrusions, Thoma favors the osteoectomy in the horizontal ramus over osteotomy in the ascending ramus. For open-bite, osteoectomy is performed in the horizontal ramus. Treatment of mandibular retrusions depends upon the presence or absence of ankylosis of the joint.

LEWIS, Dayton.

Growth and Development

*STUDIES ON THE COMPARATIVE NUTRITIVE VALUE OF FATS: VII. GROWTH RATE WITH RESTRICTED CALORIES AND ON INJECTION OF THE GROWTH HORMONE. HARRY J. DEUEL JR., CORNELIA HENDRICK and MARY E. CROCKETT. J. Nutrition 31:737, June 1946.

The authors observed that when a preparation of the growth hormone was injected the augmented growth of the rats receiving the vegetable fat diets was as great as, or greater than, that of the rats receiving the butter diet. Increased growth does not occur when growth hormone is injected in rats receiving deficient (i. e., vitamin A free) diets;

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the period of survival is also decreased. Various vegetable fats and margarine have an ability equal to that of butter in supporting added requirements of growth. When the growth hormone was injected, a greater efficiency in the utilization of the foodstuffs needed for growth was observed.

FREDEEN, Kansas City, Mo.

THE RELATIONSHIP BETWEEN RAMUS HEIGHT, DENTAL HEIGHT, AND OVERBITE. WENDELL L. WYLIE. Am. J. of Orthodont. and Oral Surg. 32:57, Feb. 1946. (See Case Analysis)

GROWTH AND TRANSFORMATION OF THE MANDIBULAR JOINT IN THE RAT. II. HYPOPHYSECTOMIZED FEMALE RATS. DANIEL A. COLLINS, HERMANN BECKS, MIRIAM E. SIMPSON, and HERBERT M. EVANS. Am. J. of Orthodont. and Oral Surg. 32:443, Aug. 1946.

The mandibular joint was studied in seventy-nine hypophysectomized female rats at postoperative intervals ranging from 4 to 645 days. The transformations occurring following hypophysectomy are similar to those occurring in aging rats. The changes occur, however, very much earlier in the hypophysectomized rat. The ossification of the mandible of the hypophysectomized rat by 28 days after operation is as advanced as in a 258-day old rat. As in the normal rat some uncalcified cartilage remains in the condyles for long periods; the persistence of this tissue confers upon the joint the continued capacity for growth and remodeling.

LEWIS, Dayton.

GROWTH AND TRANSFORMATION OF THE MANDIBULAR JOINT IN THE RAT. III. THE EFFECT OF GROWTH HORMONE AND THYROXIN INJECTIONS IN HYPOPHYSECTOMIZED FEMALE RATS. HERMANN BECKS, DANIEL A. COLLINS, MIRIAM E. SIMPSON, and HERBERT M. EVANS. Am. J. of Orthodont. and Oral Surg. 32:447, Aug. 1946.

It is concluded that growth processes in the senescent mandibular joints of hypophysectomized rats may be restored to juvenile vigor by administration of pituitary growth hormone. Thyroxin as given in this experiment not only failed to reactivate growth at the mandibular joint, but when injected simultaneously with growth hormone inhibited the response to the growth hormone. The response of the cartilage covering the head of the tibia was entirely comparable with that of the mandibular joint.

LEWIS, Dayton.

THE GROWTH OF THE MANDIBLE. HARRY SICHER. Am. J. of Orthodont. and Oral Surg. 33:30, Jan. 1947.

In the growth of the mandible, growth of cartilage and bone play the dual role of making the mandible as a whole grow. In the mandibular condyle the cartilage grows from within, interstitially, and by appositional growth from the covering fibrous tissues. Proliferation of the condylar cartilage causes the mandible to grow downward, forward, and laterally. Growth of the mandible in relation to the cranium is considered. By mandibular growth the space is opened between upper and lower jaws into which bone grows and teeth erupt. The cranium grows at the face by proliferation of cartilage and enlarges at its convexity by sutural growth. In addition to growth at its sutures the maxilla grows by apposition at its alveolar border.

LEWIS, Dayton.

THE FACE AND ITS DEVELOPMENT. RODOLFO TARASIDO. Am. J. of Orthodont. and Oral Surg. 32:627, Nov. 1946.

The author summarizes part of the work of Broadbent and Hellman on the developing face.

LEWIS, Dayton.

GROWTH OF THE CHILD AND THE CALCIFICATION PATTERN OF THE TEETH. MAURY MASSIER and ISAAC SCHOUR. Am. J. of Orthodont. and Oral Surg. 32:495. Sept. 1946.

The purpose of this paper is to analyze the differences in the quality of the enamel and dentine formed and calcified during the various developmental periods of the growing

individual and to attempt to correlate these differences with the physiologic characteristics of those periods.

Metabolic changes during the successive developmental periods are reflected accurately and permanently in the dental tissues forming and calcifying at that time. The authors studied over one thousand human deciduous and permanent teeth in ground and decalcified sections in addition to clinical examination of the teeth.

Periods of acute susceptibility occur at the neonatal period, at the age of ten months, at about two and a half years, and at about five years.

LEWIS, Dayton.

GROWTH AND TRANSFORMATION OF THE MANDIBULAR JOINT IN THE RAT. I. NORMAL FEMALE RATS. DANIEL A. COLLINS, HERMANN BECKS, MIRIAM E. SIMPSON, and HERBERT M. EVANS. Am. J. of Orthodont. and Oral Surg. 32:431, Aug. 1946.

Growth and transformation of the mandibular joint in the normal rat from 5 to 465 days of age is described. The marked changes which occur in the fossa, interarticular soft tissue, and the condyle, and the changes associated with progressively decreased growth activity of this region are described and illustrated.

LEWIS, Dayton.

Heredity

THE FAMILY AND DENTAL DISEASE. HENRY KLEIN. Am. J. of Orthodont. and Oral Surg. 32:530. Sept. 1946.

Analysis of dental examination findings on more than fifteen hundred children and their fathers and mothers indicates that size of the family and the age of each parent at time of birth of offspring bear no significant relationship to the amount of dental decay experienced by the offspring.

LEWIS, Dayton.

Histology

SOME ORTHODONTIC PROBLEMS IN HISTOLOGIC ILLUMINATION. B. GOTTLIEB. Am. J. of Orthodont. and Oral Surg. 32:113, Mar. 1946.

Too strong force in orthodontics, ankylosis in orthodontics, perforation of bone by orthodontically moved teeth, orthodontics and pyorrhea, continuous tooth eruption, and tooth impaction are the topics covered by Gottlieb.

On the side of pressure no force can achieve more than contact between tooth and bone, and no technique can avoid it so Gottlieb feels there is no use talking about "too strong" force. Overloaded teeth, such as first molars used as anchorage, may develop ankylosis.

LEWIS, Dayton.

THE VALUE OF MODEL EXPERIMENTS ON TOOTH MOVEMENT. PETER ADLER. Am. J. of Orthodont. and Oral Surg. 32:583, Oct. 1946.

A review of experiments on tooth movement beginning with Oppenheim's original work is given by Adler. He believes that since the periodontal media cannot be considered homogeneous, model experiments do not accord with the real conditions in the bony processes.

LEWIS, Dayton.

THE REACTION OF THE PULP TO PRESSURE. M. B. MARKUS. Am. J. of Orthodont. and Oral Surg. 32:682, Dec. 1946.

Following ligation to an .030 labial arch wire with a .010 steel ligature fifty-one out of fifty-three incisor teeth showed a tendency toward an increased irritability of the pulp as denoted by a lowered threshold of stimulation. Markus believes pulp testing, especially of the upper four incisor teeth, prior to treatment should be a value to both patient and operator.

LEWIS, Dayton.

Historical

A Brief History of the Southwestern Society of Orthodontics. Paul G. Spencer. Am. J. of Orthodont. and Oral Surg. 32:253, May 1946.

From an organization of eight charter members the Southwestern Society has grown to a membership of eighty in 25 years, all of whom are from Kansas, Oklahoma, Arkansas, Louisiana, and Texas.

Lewis, Dayton.

Comments on Our History. A. B. Brusse. Am. J. of Orthodont. and Oral Surg. 32:257. May 1946.

The author discusses the trend towards "socialized medicine."

Lewis, Dayton.

Miscellaneous

Welcome to Our Returned Veterans. T. G. Duckworth. Am. J. of Orthodont. and Oral Surg. 32:259, May 1946.

To the seventeen returned veterans of the Southwestern Society, Duckworth extends an open-armed welcome.

Lewis, Dayton.

Nutrition and Metabolism

*Phosphorus Metabolism of Preschool Children. Beula V. McKey, Marie Folsom Clark, Frieda L. Meyer, and Milicent L. Hathaway. J. Nutrition 31:657, June 1946.

The authors studied phosphorus metabolism in eight preschool children on phosphorus intakes of 896 to 1,374 mg. per day, or 55 to 76 mg. per kilogram per day. The values for retentions per kilogram of body weight varied from 3.5 to 10.8 mg. per kilogram. None of the supplements, ascorbic acid, potassium citrate or orange juice, caused significant alterations in phosphorus retentions.

Fredeen, Kansas City, Mo.

*Rickets in Iceland. Niels Dungal. Am. J. M. Sc. 210:70, July 1945.

A survey was made of 253 children in Iceland, all between 3 months and 2 years of age. A clinical and roentgenologic examination was made of each child's wrist and knee, and usually also of his crus and ankle.

The clinical examination showed definite signs of rickets in 66 per cent. Of these, 35 per cent had a visible Harrison's groove, 44 per cent a rachitic rosary, and definite signs of cranial rickets were found in at least 54 per cent. Roentgenographs showed signs of rickets in 75 per cent of the children.

The final result, obtained by comparison of clinical and roentgenologic data, showed that 77 per cent had rickets.

These results dismiss the widespread belief that rickets is unknown in Iceland.

Henske, Omaha.

Studies on the Comparative Nutritive Value of Fats: VII. Growth Rate With Restricted Calories and on Injection of the Growth Hormone. Harry J. Deuel Jr., Cornelia Hendrick, and Mary E. Crockett. J. Nutrition. 31:737, June 1946. (See Growth and Development)

*Poor Eating Habits of the Runabout Child: The Role of Physiologic Anorexia. Edith S. Hewitt and C. Anderson Aldrich. J. Pediat. 28:595, May 1946.

Of 360 children, 1 to 3 years of age, encountered in well baby clinics, 82 (23 per cent) were reported by their mothers to be troubled with anorexia.

It was felt that in many of the patients the anorexia was caused by an unrecognized physiologic waning of the appetite which occurs after the first growth spurt has reached

* Presented by courtesy of *American Journal of Diseases of Children.*

its peak, in the second part of the first year of life. Accordingly, quite simple directions were given the mothers of these children: (1) to stop forcing food, allowing the child to eat what he wanted in a reasonable, but limited, time; (2) to offer mostly the foods that the child liked, without undue coaxing or threats; (3) to remove any food left without comment and to offer no more until the next meal, and (4) to give no more than approximately 1 pint (500 cc.) of milk in twenty-four hours. In some instances it was advised that the milk be skimmed.

As a rule, these patients were seen at only one visit for treatment.

Several months later 65 of the 82 children were reexamined. It was then found that 59 of them (91 per cent) had much better appetites than before and that the mothers no longer considered that the children presented a feeding problem. The remaining 9 per cent (1.7 per cent of the entire group of 360) presented multiple behavior problems.

FROM THE AUTHOR'S ABSTRACT.

CHANGES IN ORAL STRUCTURES OF THE DOG PERSISTING AFTER CHRONIC OVERDOSES OF VITAMIN D. HERMANN BECKS, DANIEL A. COLLINS, and RUTH M. FREYTAG. Am. J. of Orthodont. and Oral Surg. 32:463, Aug. 1946.

Young dogs receiving daily excessive doses of vitamin D_2 and D_3 for a five-month period manifested profound pathologic changes, which included distorted and deformed roots, pathologic calcifications of connective tissues of the paradentium, hypercementosis, pulp stone formation, and advanced paradentosis. The changes persisted following a recovery period of similar duration. No evidence of healing or repair could be demonstrated. The investigators warn regarding the danger of administering chronic excessive doses of vitamin D.

LEWIS, Dayton.

THE EFFECTS OF A SINGLE MASSIVE DOSE OF VITAMIN D_2 ON ORAL AND OTHER TISSUES OF YOUNG DOGS. HERMANN BECKS, DANIEL A. COLLINS, and HELEN E. AXELROD. Am. J. of Orthodont. and Oral Surg. 32:452, Aug. 1946.

Single massive doses of 450,000 I.U. of vitamin D_2 were administered to cocker spaniels one month of age. Osteoporosis of the mandible and deformation of the forming teeth were observed in roentgenograms and confirmed histologically. Pathologic changes were observed in the lungs and kidneys. The authors warn against the dangers of administering excessive doses of vitamin D_2.

LEWIS, Dayton.

Pathology

*GARGOYLISM [LIPOCHONDRODYSTROPHY]. H. M. BROUWER-FROMANN. Nederl. tijdschr. v. geneesk. 90:705, June 22, 1946.

The case of a girl aged 17 months with gargoylism is reported, with a short survey of the literature.

VAN CREVELD, Amsterdam, The Netherlands.

*AN ANALYSIS OF THE KLIPPEL-FEIL SYNDROME. C. A. ERSKINE. Arch. Path. 41:269, March 1946.

The author reports a case of the Klippel-Feil syndrome. He characterizes the syndrome clinically by shortness of the neck, limitation of movement of the head, and lowering of the hair line, and anatomically by synostosis of two or more cervical vertebrae with flattening and widening of the vertebral bodies. He refers to many cases in the literature in discussing associated regional and distant anomalies. He reviews the theories of pathogenesis which include infections of the patient as a fetus or of the mother during pregnancy, syphilis, dysplastic factors, stability or instability of phylogenetic structures and hereditary factors (citing in support of this theory the occurrences of the syndrome in more than one member of a family). In his review of reported cases of the syndrome he finds the incidence higher in females than in males. He feels that actual numerical reduction of the cervical vertebrae or the presence of spina bifida are not essential features. He supports an embryologic explanation of the anomaly with emphasis on interference in growth and develop-

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ment of regional mesoblastic structures. Such an explanation as this explains the occurrence of the Klippel-Feil syndrome and Sprengel's deformity separately and together on a temporal basis of interference with the growth of cervical mesoblastic structures, the Klippel-Feil syndrome being produced by slightly earlier influences on somatic development.

GEREN, St. Louis.

*MIKULICZ' DISEASE. JOSÉ CELORIA and JORGE A. GÜEGLIO. Rev. Soc. pediat. d. litoral 10:253, Sept.-Dec. 1945.

The case of a 12 year old girl is presented by the authors. Only the parotid and submaxillary glands were affected; there was no involvement of the lacrimal glands. Biopsy revealed lymphoid infiltration. The authors discuss the differential diagnosis of swellings of the salivary glands and present the various theories of the cause of Mikulicz' disease. The condition occurs mostly in persons between 20 and 30 years of age; children are rarely affected.

SOLMITZ, Chicago.

INVESTIGATIONS OF THE NEUROPATHOLOGIC MANIFESTATIONS OF ORAL TISSUES. NEWTON W. MELLARS and FREDERICK W. HERMES. Am. J. of Orthodont. and Oral Surg. 32:30, Jan. 1946.

The authors are engaged in research to ascertain the etiology of bleeding gums, pyorrhetic disturbances, capillary alterations, as well as of periodic and spasmodic pains in the jaws of emotionally disturbed patients which have no apparent pathologic basis and which may be of psychosomatic origin. Patients are from a state hospital in California for neuropsychiatric diseases.

An interesting feature is the observation that patients who are permanently in a state of psychosis in which they are no longer emotionally disturbed and do not have to contend with emotional cyclic changes, or those whose condition has improved after treatment, present a minimum of oral symptoms. Patients whose periodontal disturbances have been corrected often show a remittance of their symptoms following the development of psychic tension, and these symptoms tend to disappear again after the mental affect has completed its cycle or has yielded to therapeutic measures.

LEWIS, Dayton.

CHANGES IN ORAL STRUCTURES OF THE DOG PERSISTING AFTER CHRONIC OVERDOSES OF VITAMIN D. HERMANN BECKS, DANIEL A. COLLINS, AND RUTH M. FREYTAG. Am. J. of Orthodont. and Oral Surg. 32:463, Aug., 1946. (See Nutrition and Metabolism)

THE EFFECTS OF A SINGLE MASSIVE DOSE OF VITAMIN D_2 ON ORAL AND OTHER TISSUES OF YOUNG DOGS. HERMANN BECKS, DANIEL A. COLLINS, AND HELEN E. AXELROD. Am J. of Orthodont. and Oral Surg. 32:452, Aug. 1946. (See Nutrition and Metabolism)

THE REACTION OF THE PLUP TO PRESSURE. M.B. MARKUS. Am J. of Orthodont. and Oral Surg. 32:682, Dec. 1946. (See Histology)

Speech

* A NOTE ON A LINGUA-VELAR RELATIONSHIP. ROBERT HARRINGTON. J. Speech Disorders 11:25, 1946.

It is possible that in certain phonetic elements there is a proportionate relationship between the elevation of the tongue and the elevation of the velum. Roentgenologic studies to date have not controlled many of the variables in the technic of studying this phenomenon. There is no muscular relationship which would explain it.

PALMER, WICHITA, KAN.

*CLUTTERING. EMIL FROESCHELS. J. Speech Disorders 11:31, 1946.

In the treatment of cluttering the primary aim is toward the right order in time between the thought phase and the speech phase. Those devices are used which help the patient to

* Presented by courtesy of *American Journal of Diseases of Children.*

control the accuracy, and therefore the tempo, of his articulation. The author has achieved good results with pictorial phonetic script, lip reading and indicating the zone of articulation in reading and conversation. Every patient treated in this way so far could be cured within three to six months. This experience proves again the part which a rapid speech tempo plays in the development of cluttering.

PALMER, WICHITA, KAN.

*INFANT SPEECH VOWEL AND CONSONANT TYPES. HAN PIAO CHEN and ORVIS C. IRWIN. J. Speech Disorders 11:27, 1946.

Sixteen hundred and twenty-two records of infant speech produced by 95 infants from birth to 2½ years were studied by means of an equation derived from the means of the vowel types and the equation derived from the means of the consonant types. During the first year the mean number of vowel types exceeds the mean number of consonant types. After this the situation is reversed. At 2½ years the infant possesses practically the full complement of vowels and two thirds of the full complement of consonants. It is suggested that the equations may be considered the expressions of the two laws of phoneme type development during infancy.

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*THE RELATIONSHIP BETWEEN VOLUNTARY NON-FLUENCY AND STUTTERING. JAMES HYDE MEISSNER. J. Speech Disorders 11:13, 1946.

Twenty-four stutters, 8 females and 16 males, ranging in age from 13 to 22 years, who were undergoing corrective work in the Speech Clinic of the University of Iowa, read three experimental passages in which they were required to read with nonfluency varying percentages of words, and then to proceed immediately to control passages on which no voluntary nonfluency was required (nonfluency or voluntary stuttering consists of repetitive movements of initial consonants and other sounds at a controlled rate—a sort of "fake" stuttering). Conclusions reached were as follows: 1. The frequency of stuttering in the immediate context of words which are produced with voluntary nonfluency is significantly less in passages in which 50 or 25 per cent of the words are nonfluently produced than in passages in which either 0 or 5 per cent of the words are nonfluently spoken voluntarily. 2. This differential effect is not to be observed in the over-all frequency of stuttering in those control passages which immediately followed the experimental passages. 3. Significantly greater amounts of stuttering occur on words which have the larger number of the following attributes: initial consonant, initial position in the sentence, work length greater than five letters and grammatical function of noun, verb, adjective or adverb. 4. The conclusion concerning stuttering in relation to word weights all applies to errors in producing words with voluntary nonfluency, more such errors occurring on words in the higher weight categories.

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*DYNAMIC FACTORS IN THE MOTOR-KINESTHETIC METHOD OF SPEECH CORRECTION. W. ARTHUR CABLE. Quart. J. Speech 31:350, 1945.

Cable studied the work of Mrs. Edna Hill Young during the second term of the 1943 summer session of the University of Denver Speech Clinic. The following conclusions were reached: 1. The motor-kinesthetic method of developing and correcting speech consists primarily of dynamic concepts, principles and procedures. 2. Neuromuscular learning is at the vortex of the motor-kinesthetic method. 3. The motor-kinesthetic method of correction is centered on muscle movement and allied dynamic factors. 4. The dynamic factor of energy, in terms of muscular force, is recognized and utilized as an essential. 5. Those who learn this method are taught to recognize and build toward the integration of the total organism as an instrument of speech 6. The dynamic content of this method appears to be the primary cause of its superiority over the visual-auditory method. 7. The employment of motivation by the correctionist or the clinician is vital. 8. The method under consideration is a striking application of the educational principle that all learning should be acquired through activity of the learner. Two illustrative cases are presented.

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* Presented by courtesy of *American Journal of Diseases of Children.*

*National Survey of State Legislative Provisions for the Speech Defective Child in the Public School. Frances Welborn Fesler. Quart. J. Speech 32:349, 1946.

A letter was sent to the director of each state department of education and to the supervisor of schools in Washington, D.C., asking for information concerning legislation enacted by the state for the education of its speech-defective children. Only 6.1 per cent of the states and the District of Columbia have specific legislative provisions for speech rehabilitation in public schools. But 16.3 per cent of the states, representing 22 per cent of the total school population, have included those with speech defects in the handicapped children to receive special education in the public schools. In another 16.3 per cent of the states, comprising 17.3 of the total school population, speech-defective children are not mentioned in legislative provisions, but are included in the programs for handicapped children. In 10.2 per cent, representing 9.2 per cent of the total school population, programs have been proposed or considered. In about 50 per cent of the states, or 46 per cent of the total school population, there is no mention of programs, provisions or proposed legislation. In 61 per cent of the states there are no programs or formal provisions for programs at present. Thirty-nine per cent of the states were taking care of their speech-defective children by specific inclusion of such children in the laws regarding handicapped children or by liberal interpretation of these laws.

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*Training and Certification of Speech Correctionists. Severina E. Nelson. Speech Disorders 11:205, 1946.

A questionnaire was sent to various institutions giving professional training in the field of logopedics. Some schools have a four year specialized curriculum with a systematic arrangement; in others it has been found possible to keep the traditional curriculum intact and to integrate with, or to superimpose on, the traditional university curriculum a professional course of study. In a third group a five-year program is arranged. There is a similar emphasis on certain specialized courses. Whether the training program should include four years of general cultural courses with a fifth year of specialization must still be determined. Professional standards as used and interpreted by state certifying agencies should be brought up to requirements comparable to those of the American Speech Correction Association. Courses in specialization should be studied against the background of the general course of study for the proper perspective. Too few speech correctionists are being trained and certified for the urgent needs of the school systems, probably because of the lack of state support and understanding of the problems of training. Support and help should be given those institutions with curricular programs who are struggling without university support and understanding and without state aid.

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