

Abstracts of Current Literature

RECENT PROGRESS IN PEDIATRICS. M. VARGAS, *Med. de los Niños* 37:72 (March) 1936.

Of dental interest in this presentation are the following: A. Children retarded in growth show improvement following the use of extracts of the anterior lobe of the pituitary gland, and of the thymus gland, the latter are of benefit in treatment of cryptorchidism and adiposogenital dystrophies. B. Orange juice, or tomato juice and cod liver oil with carotene must be given with the latter if results in anemic infants are expected when that substance is administered. C. Methanamine and acetylcholine effect improvement in the treatment of acrodynia.

H. J. NOYES, Chicago

A MALFORMATION AND AN ANOMALY OF THE TEETH. DR. J. MERLE-BERAL. *The Stomatological Review* (France) 38:844 (Dec.) 1936.

Orthodontic interest in the two reports is limited to that of the dental malformation, in a boy of nine, which arose from a trauma in the deciduous incisor area at the age of two. The patient presented because of a retrognathism caused by the apparent lingual malposition of the permanent upper right central incisor tooth. The blow had fractured the deciduous upper right lateral incisor and rotated, mesio-labially, the proximating central. These teeth were shed and their successors erupted without incident beyond that of the lingual position of the right central incisor. X-ray films reveal that this latter tooth is not malposed but has a root-crown of about forty-five degrees.

M. R. NEWCOMB, Cleveland

CONTRIBUTION TO THE STUDY OF MANDIBULAR RETRUSION. A. PONT. *L'Orthodontie Française* 11:93, 1936.

The forepart of this study deals with etiology, symptomatology and diagnosis; the latter is chiefly concerned with differentiating between the hereditary and acquired nature of the case. The remainder deals with treatment and here Pont is concerned with three distinct phases of cases of this type; 1) correction of the mesiodistal relation, 2) gaining vertical growth, and 3) retraction of the protruding maxillary incisors. For the first phase he uses Baker anchorage; for the second, a biteplate and occasionally vertical elastics with the plate; for the third, reversed Angle sheaths.

M. R. NEWCOMB, Cleveland

CREATING SPACE WITH A SPRING SHAPED LIKE A SANDGLASS. G. IZARD. *The Stomatological Review* (France) 39:107 (Feb.) 1937.

This device is intended to create or increase space, mesiodistally, between two teeth and is most often used in the premolar and molar areas to correct the mesial drift of a molar tooth. It consists of a band on the molar teeth, to the mesial surface of which the ends of the spring are soldered. The spring is activated by bending with pliers and is similar in form to the saddle-shaped space maintainers used by some operators in the United States.

M. R. NEWCOMB, Cleveland

ON THE DENTITION OF THE FOETUS. MOLA and BOLAFFE. *Annali di Clinica Odontoiatrica* 10:875 (Oct.) 1936. Reviewed in *The Stomatological Review* (France) 39:147 (Feb.) 1937.

The authors review the usual time of eruption of the deciduous dentition, and on

the basis of their clinical and histopathologic examinations, divide foetal teeth into two categories; those in which there is simply an anomalous time of eruption and those in which, together with the anomaly in time, there are pathological manifestations in the periodontal and other tissues. They cite, and describe the teeth, in one case (a congenital syphilitic) having seven teeth at birth and hazard the hypothesis that foetal teeth represent an atavism and that their eruption, in the majority of cases, is due to pathological changes associated with an hereditary predisposition.

M. R. NEWCOMB, Cleveland

TREATMENT OF MANDIBULAR FRACTURES BY EXTERNAL FIXATION. DRS. J. BERCHER and GINESTET. *L'Orthodontie Française* 11:63, 1936.

The appliance described consists of a "fixator" in three parts: an anterior and two lateral arms, the latter attached to the extremities of the former by an adjustable "universal joint" device. To these arms small stainless steel hooks are fastened, adjusted by thumbscrews, which are embedded in the mandible at selected points through external incisions. The authors' claims: avoidance of septic areas, freedom of mandibular function, immediate reduction and complete fixation. They warn that the appliance is not suitable for all cases, being particularly adapted to edentulous mandibles and certain gunshot wounds.

M. R. NEWCOMB, Cleveland

TREATMENT OF PURELY HEREDITARY DENTO-MAXILLARY DEFORMITIES. A. PONT. *L'Orthodontie Française* 11:77, 1936.

This article returns to light the old theory of the large teeth of one parent in the small jaws of the other parent. Methods of diagnosis and treatment are outlined; treatment at the earliest possible age is recommended for all cases arising from "pure heredity."

M. R. NEWCOMB, Cleveland

A LOCK FOR STAINLESS STEEL ARCHES. L. BLANC, *L'Orthodontie Française* 11:87, 1936.

The author reports a simple method of making a lock for vertical tubes which eliminates the difficulty of soldering a post on the steel archwire. The extremity of the archwire is inserted in the vertical tube and the wire bent posteriorly at the gingival edge of the tube; a second bend brings the archwire occlusally and parallel with the tube; the last leads the wire to form the lock at the occlusal aspect of the tube thus paralleling the wire with the occlusal plane. Thus the steel arch and lock are made from a single piece.

M. R. NEWCOMB, Cleveland

STEPS IN TREATMENT. DR. L. DE COSTER. *L'Orthodontie Française* 11:35, 1936.

This interesting article classifies malformations as follows: 1) Simple tooth malpositions; 2) Developmental insufficiencies; 3) Developmental excesses; 4) Functional difficulties. The advantages deriving from a definite plan of treatment are portrayed and the author concludes a case report as follows: "The mechanics of treatment are the least important part. The important phase is the exact recognition of the situation, the rational analysis and the maximum exploitation of the favorable factors of growth and tooth eruption."

M. R. NEWCOMB, Cleveland

SUBMERGED TEMPORARY MOLARS. DR. ERNEST COMTE, *L'Orthodontie Française* 11:147, 1936.

The first case reported involves complete submersion of a lower deciduous second molar in a boy of nine and a half years. Mention is made of the difficulty experienced in extracting this tooth and of the subsequent rapid eruption of its permanent successor.

The second case involves the same tooth in another nine year old boy. It is re-

ported that the right deciduous second molar erupted normally and without incident but at about nine years, and from an unknown cause, it seemed to submerge about two millimetres below the occlusal plane. The author attempts no explanation of this phenomenon.

M. R. NEWCOMB, Cleveland

SUBMERSION OF A SIX YEAR MOLAR. DR. E. CADENAT, L'Orthodontie Française 11:158, 1936.

This is a report of a submerged lower first permanent molar in a man of thirty. Only the buccal cusps were visible at the time of examination and they appeared decalcified. Radiographically it showed "profound changes in its texture" and exhibited a cyst about the roots.

M. R. NEWCOMB, Cleveland

*THE CALORIGENIC ACTION OF EXTRACTS OF THE ANTERIOR LOBE OF THE PITUITARY IN MAN. W. O. THOMPSON and others, Endocrinology 20:55 (Jan.) 1936.

The following facts regarding the relationship between the pituitary and the thyroid gland have been demonstrated in animals:

1. Enlargement of the pituitary gland has been noted in thyroidectomized animals.
2. The thyroid gland becomes atrophic, and the basal metabolism drops, following removal of the pituitary gland.
3. Active extracts of the pituitary gland cause (a) hyperplasia of the thyroid gland, (b) reduction of the iodine in this gland, (c) increase in the organic iodine in the blood, (d) tachycardia, (e) exophthalmos and (f) increase in the basal metabolic rate. These changes do not occur in thyroidectomized animals.
4. Iodine is effective in reducing the high basal metabolism of animals which are receiving pituitary extracts.

5. The metabolic and thyroid changes produced by pituitary extracts are always temporary, and prolonged administration may cause the metabolism to drop to as low a level as that seen after hypophysectomy. The serum of such animals contains some factor which inhibits the action of the thyrotropic principle. This observation has given rise to the antihormone theory of Collip.

Only in isolated instances have such observations been made in man. Therefore the effect of the administration of various pituitary preparations to fifty-nine patients was studied.

When extracts containing the thyrotropic principle were given, an increase in basal metabolism was noted in every patient in whom there was any thyroid tissue capable of functioning. Patients with nontoxic goiters could be made toxic, but no rise in toxicity was noted in four patients with myxedema.

The increase in metabolism was always temporary. Second courses of treatment usually failed to produce any increase.

Thyroxin U. S. P. and thyroid U. S. P. produced well marked calorogenic effects after the patients had become refractory to the pituitary extracts.

JACOBSEN, Buffalo

*DERMOID CYST WITH CRANIAL MALFORMATION. DE JAEGER, Ann. d'ocul. 172:31 (Jan.) 1936.

Joseph J., 14 years of age, was brought to de Jaeger in April 1935 because of a tumor in the left temporal region. He did not present any other malformation. His mother had a tumor of the identical type in the orbital cavity. He was an only child. It was

*Reprinted by courtesy of The American Journal of the Diseases of Children

stated that his tumor had always been present, but that it had enlarged since the ninth year. About fifteen days previous to this observation the child had received a blow on the tumor, and the growth seemed to disappear but reappeared and was the same size as before. Examination showed in the left temporal fossa, behind the external wall of the orbit, a neoplasm the size of a small pigeon's egg; it was soft and adherent to the bone. Palpation about the tumor gave the impression that some of the bone of that part was deficient. To assure himself that the tumor did not extend intracranially, de Jaeger referred the patient to the department of roentgenography. Details of the examination are given, with a photograph.

De Jaeger emphasizes that a chalky bony canal was found in the sphenoid bone. He thinks that this cranial malformation must be rare, as little importance is attached to the subject in the various classic works which he consulted.

McKEE, Montreal, Canada [ARCH. OPHTH.]

*EFFECTS OF ACID AND ALKALINE DIETS ON TONSILS. H. HOEPKE and W. GRÜNING, *Ztschr. f. Hals-, Nasen- u. Ohrenh.* 37:396, 1935.

Hoepke and Grüning made their studies on hedgehogs just after the animals awakened from five months of hibernation. The size and the histologic aspects of the tonsils during hibernation were known from former studies. It was found that an alkaline diet causes considerable shrinkage of the tonsils (by about a third). The number of nodules is greatly reduced, and there are profuse formation and elimination of small lymphocytes. The lymph vessels that empty into the organs show profuse filling. After an acid diet, the tonsils decrease only slightly from their size during hibernation, and the number of nodules is slightly reduced. The formation of small lymphocytes is greatly inhibited and the formation of large cell forms increased. For this reason, the centers of the nodules are rather conspicuous. The discharge of small lymphocytes into the organism ceases or is only slight. In trying to explain this differing behavior, Hoepke and Grüning point out that the acid diet is nearer to the natural diet of the hedgehog than is the alkaline diet. In accordance with this, the reaction of the lymphatic system is less with the acid diet than with the alkaline diet. The latter elicits a spontaneous defense or a counter attack in the lymphatic system.

AUTHORS' ABSTRACT [ARCH. OTOLARYNG.]

*PITUITARY CACHEXIA (SIMMONDS' DISEASE). R. C. MOEHLIG, *Endocrinology* 20:155 (March) 1936.

A 15 year old school girl was seen with the following complaints: loss of weight and strength, decaying teeth, falling hair, irregular menstruation, metrorrhagia, mental lethargy, dryness of the skin and marked anorexia. These symptoms were of ten months' duration.

The father weighed 245 pounds (111 Kg.), the paternal grandmother 255 pounds (107 Kg.), and the mother 200 pounds (91 Kg.). The child's weight had been 162 pounds (119 Kg.) and was 134½ pounds (106 Kg.) at the time of her first visit.

One year after onset her weight was 101 pounds (91 Kg.), and muscular atrophy was everywhere extreme. The heart was small; the blood pressure, low. Muscular weakness was marked. The temperature was repeatedly 94 F.

She was treated with the gonadotropic hormone from the urine of pregnant women (antuitrin S), an extract of adrenal cortex (eschatin), insulin alone and with dextrose, pituitary tablets, cod liver oil, sunshine, a diet high in calories and forced feeding.

*Reprinted by courtesy of The American Journal of the Diseases of Children

Despite these various forms of endocrine gland therapy and supportive measures, she died seventeen months after the initial symptoms began.

JACOBSEN, Buffalo

*THE PREVALENCE OF VITAMIN A DEFICIENCY AMONG IOWA CHILDREN. P. C. JEANS and Z. ZENTMIRE, J.A.M.A. 106:996 (March 21) 1936.

Using a photometer test, Jeans and Zentmire made a survey among Iowa school children to determine the frequency of vitamin A deficiency. They found that 26 per cent of a rural group and 53 per cent of a village group presented evidence of such a deficiency. In an urban group of higher economic level a deficiency of vitamin A was found in 56 per cent; and in the lower level, in 79 per cent. Of seventy-eight children treated and kept under observation, all but three showed normal adaptation for dark after a period of ingestion of vitamin A or carotene.

BONAR, Salt Lake City

*METABOLIC STUDIES IN OSTEOPOROSIS. M. ADAMS, W. M. BOOTHBY and A. M. SNELL, Am. J. Physiol. 114:383 (Jan.) 1936.

This is a report of an extensive study of the metabolism of a subject with osteoporosis of a senescent type, the chief object of which was to compare the utilization of the calcium in calcium lactate and in tribasic calcium phosphate. The results indicated that the soluble calcium lactate could be assimilated more readily than the insoluble calcium phosphate. A definite clinical improvement accompanied the storage of calcium and phosphorus.

NOURSE, Cleveland

*THE OPTIMAL TIME FOR THE SURGICAL CORRECTION OF CONGENITAL DEVELOPMENTAL DEFECTS IN INFANTS AND CHILDREN. J. PODLAHA, Bratisl. lékař. listy 15:428 (March) 1935.

Podlaha discusses the optimal time and procedure for the surgical correction of such defects as harelip and cleft palate. He stresses the postoperative pallor and hyperpyrexia and recommends that when no emergency exists operations be carried out after stabilization of the circulation and of the metabolism. Harelip is operated on at about 8 weeks, and cleft palate, before the child begins to talk. A detailed schedule is outlined for the various degrees of cleft. Hemangioblastomas, esophageal strictures, hernias of the navel and of the spinal cord, anal atreσίας and other congenital defects are taken up.

STULIK, Chicago

*TWO CASES OF CRANIOFACIAL DYSOSTOSIS. H. GRENET, Bull. Soc. de pédiat. de Paris 34:156 (March) 1936.

A girl 6 years old and a girl 3½ years old presented some of the abnormalities characteristic of craniofacial dysostosis. The former had no family history of cranial deformity; the latter's mother and brother, who died at the age of 1 month, had some cranial abnormalities.

BENJAMIN, Montreal, Canada

NANISM WITH INFANTILISM, MICROCEPHALY AND OSSEOUS AND CUTANEOUS MALFORMATIONS OF THE TYPE OF SENILE NANISM OR PROGERIA IN TWO BROTHERS. G. HEUYER, L. DENOYELLE and A. BERNARD, Bull. Soc. de pédiat. de Paris 34:159 (March) 1936.

Two brothers 14 and 12 years old, respectively, showed definite infantilism accompanied by some of the features which have been described in progeria. For want of any better category in which to place these two cases, they have been listed under the heading

*Reprinted by courtesy of The American Journal of the Diseases of Children

of progeria, although many of the characteristics of this condition were absent.

BENJAMIN, Montreal, Canada

*FURTHER OBSERVATIONS ON APHTHOUS STOMATITIS. W. HERTZ, München. med. Wchn-schr. 83:516 (March 27) 1936.

Hertz adds to his previous observations (1935, in 1,438 subjects) on aphthous stomatitis. He found no attenuation of the virus in lesions which had been treated with antiseptic solutions. The acquired immunity of guinea-pigs after vaccination with the stomatitic virus lasts a maximum of ten months. Twice measles was observed to shorten the course of aphthous stomatitis.

BRAHDY, Mount Vernon, N. Y.

*ENDOCRINE DWARFISM. R. L. SCHAEFER, Endocrinology 20:64 (Jan.) 1936.

In this paper the four dwarfs discussed in two previous papers are reported on after two years and nine months of observation, and seven others treated for from six to nineteen months are also described. Growth in height in excess of the normal for the individual age and period of treatment has been induced.

Complete studies of the metabolism in these eleven cases of pituitary dwarfism are recorded. The body measurements are below the minimal normal but are proportionate. Generalized chondroepiphyseal changes, including such conditions as Schlatter's, Perthes' and Köhler's disease, are not an infrequent finding.

JACOBSEN, Buffalo

*A ROENTGENOGRAPHIC METHOD FOR SIMULTANEOUS VISUALIZATION OF THE SOFT PARTS AND BONY STRUCTURES OF THE SKULL IN PROFILE. H. FRANKE, Röntgenpraxis 8:43 (Jan.) 1936.

A technic is described by the use of which it is possible to obtain excellent roentgenographic portraits in which the relation of the soft tissues to the underlying bones is admirably visualized. The procedure is valuable in orthodontia.

McCUNE, New York

DENTAL ARTICULATION AS AN ORTHODONTIC AIM. HARVEY STALLAND, The Journal of the American Dental Association and Dental Cosmos 24:347-376 (Mar.) 1937.

The author presents a series of pictures of a Gnathokin which shows the teeth from lateral incisor to second molar on one side mounted and interdigitated:

First showing that with a horizontal occlusal plane, the increasing slant of the condyle path decreases the radius of the Curve of Spee, with similar results when the occlusal plane is held at 15°, 25° or 50°;

Secondly with a straight condylar slot instead of a curved one of four inches, an increasing slant decreases the radius of the Curve of Spee, regardless of whether the occlusal plane be horizontal, 15°, 25° or 50°.

Thirdly that increasing the slant of the occlusal plane increases the radius of the Curve of Spee, regardless of whether a straight or curved condylar slot be used and regardless of whether the angle of the condylar slot be 25°, 45° or 65°.

Models mounted on articulators are pictured showing various types of closures and occlusions. A discussion of the similarity of orthodontia and prosthodontia, and the need for better diagnoses follows.

S. R. STEADMAN, St. Paul

IS TEEN-AGE CARIES AN ENDOCRINE PROBLEM? FLOYD EDDIE HOGEBOOM, The Journal of the American Dental Association and Dental Cosmos 24:422-428 (Mar.) 1937.

A discussion of the results from observations made on cases of endocrine disturb-

*Reprinted by courtesy of The American Journal of the Diseases of Children.

ances. The belief is expressed that the endocrines probably do play some part in caries during the "teen" age, but that our knowledge of therapy is not yet sufficiently advanced to warrant treatment on an endocrine basis, except for some few definitely determined endocrine disturbances under medical supervision.

S. R. STEADMAN, St. Paul
IS IT NECESSARY TO REPLACE MISSING TEETH? B. B. MCCOLLUM, The Journal of the American Dental Association and Dental Cosmos 24:442-448 (Mar.) 1937.

Missing teeth should be replaced as soon as possible because by the time that evidences of the need for this replacement are shown it is too late to place a restoration that would have prevented the shifting of teeth from their correct inclinations and contacts.

S. R. STEADMAN, St. Paul
EXPERIMENTAL RESORPTION AND REGENERATION OF DENTO-ALVEOLAR TISSUES. JOHN ALBERT MARSHALL, The Journal of the American Dental Association and Dental Cosmos 24:449-457 (Mar.) 1937.

From experimental work on monkeys and from clinical studies of human beings the question of resorption seems to be a matter of the general health of the patient, for regardless of what type of appliance is used, resorption may result. The periods of growth seem to affect the rapidity and ease of treatment favorably. In conclusion the author suggests that "the greatest advance in orthodontic practice will depend on the development of an accurate instrument to measure force, whether pressure, torque, or tension." The physicochemical properties of fatigue, annealing, and crystallizing are still in the realm of the unknown and unapplied.

S. R. STEADMAN, St. Paul
AN EXPERIMENTAL STUDY OF PERIDENTAL MEMBRANE REATTACHMENT IN HEALTHY AND PATHOLOGIC TISSUE. W. G. SKILLEN and G. R. LUNDQUIST, The Journal of the American Dental Association and Dental Cosmos 24:175-185 (Feb.) 1937.

Many authors believe that in cases of chronic suppurative pericementitis, or so-called pyorrhea, the detached soft tissue side of a pus pocket may be reattached to the tooth surface as a result of treatment, much of the pocket being eliminated in this way.

Experiments on dog tissues showed that healthy tissue would reattach for only 2 mm., leaving a pocket of several millimeters unattached at the end of the healing period. This is due to the rapid proliferation of the epithelial tissue covering the denuded connective tissue before the connective tissue could reattach to the root.

Human material showed no reattachment of connective tissue to either cementum or enamel. Epithelium in the deeper part of a pocket may hug so closely that it *seems* to adhere.

Cases showing a decrease in pocket depth due, not to reattachment at the bottom of the pocket, but to a shrinkage of tissue at the rest of the pocket.

The roentgenogram alone does not afford acceptable evidence, either of detachment or reattachment of tissues.

S. R. STEADMAN, St. Paul
DIET IN RELATION TO GINGIVITIS—FIELD OBSERVATIONS IN NEW GUINEA. R. M. KIRKPATRICK, The Journal of the American Dental Association and Dental Cosmos 24:197-206 (Feb.) 1937.

Those natives living principally on taro had better developed dental arches and showed a smaller incidence of acute or subacute Vincent's infection of the gingivae than the natives living mainly on sago.

Taro is eaten like a fruit and incised and contains vitamins A and B. Sago is a ground food and contains little of vitamins A and B—an insufficient amount for dietary purposes.

S. R. STEADMAN, St. Paul

TEMPEROMANDIBULAR ROENTGENOGRAMS OR PRACTICAL APPLICATION OF A NEW AND SCIENTIFIC METHOD OF PRODUCING TEMPEROMANDIBULAR ROENTGENOGRAMS. L. B. HIGLEY, *The Journal of the American Dental Association and Dental Cosmos* 24:222-230 (Feb.) 1937.

This method consists of a head positioning device suspended from the ceiling, and removable when desired. It will duplicate the angulations of a joint and such pictures.

S. R. STEADMAN, St. Paul

A BIOLOGI-MATHEMATICAL FORMULA FOR AN IDEAL OCCLUSION. GEORGE H. MAXWELL, *The Journal of the American Dental Association and Dental Cosmos* 24:238-256 (Feb.) 1937

An abstract dissertation coming to the conclusion that any formula for an ideal occlusion, either biological or mathematical, is beyond the reach of man's intellectual efforts as well as those of Nature, because Nature "in no instance follows exact laws as propounded by man."

S. R. STEADMAN, St. Paul

THE MANDIBLE AND ITS POSTNATAL DEVELOPMENT—A STUDY OF FUNCTION AND ENVIRONMENT AS AIDS IN THE DEVELOPMENT OF THE DENTAL MECHANISM. ROBERT DUNN, *The Journal of the American Dental Association and Dental Cosmos* 24:529-542 (Apr.) 1937.

Dr. Dunn believes that muscular dysfunction is not an active factor in disharmony, but that the disharmony is due to lack of full coordination in the three "cardinal points" in the governing balance in the masticating mechanism: (1) mandibular incisors; (2) ascending ramus with condyle head; (3) mandibular first molar. Function is considered to be of great importance in maintaining proper vertical dimension.

S. R. STEADMAN, St. Paul

THE STRATEGY OF ORTHODONTIC TREATMENT. S. R. ATKINSON, *The Journal of the American Dental Association and Dental Cosmos* 24:560-574 (Apr.) 1937.

Success in orthodontic treatment depends, not merely upon ability in the making and application of appliances, but upon an effective strategy for the treatment of each case.

There are two kinds of malocclusion—mass and regional—each requiring different strategy. Etiology of mass occlusion is usually hereditary, faulty general physical condition, or an extraneous pressure affecting the entire denture. Regional etiology is either intra- or extra-oral pressure. Muscular habits and posture habits are of great importance.

Dr. Atkinson advocates the use of two arches simultaneously on each denture for certain cases—one flat arch for stabilizing the teeth and a round arch of small diameter (the treating arch) supplying the force for movement.

S. R. STEADMAN, St. Paul