Editorial Department

Pathologic Tooth Movement

In this issue the *Angle Orthodontist* is honored as the medium for presentation of the first of a series of articles detailing the deductions evolved from an epoch making research study conducted by Albin Oppenheim of Vienna. This essay promises to be even more outstanding as a contribution to the science of orthodontia than the material published by the same author in the *American Orthodontist,* following his remarkable experiments on monkeys. The editor feels that Dr. Oppenheim's latest work is of greater importance for two reasons. First, the experiments reported in this essay have been performed upon *human* material and second, the deductions are of greater clinical significance because they offer quite definite conclusions relative to the effect of different kinds of force applications and tabulate the mechanisms delivering these forces.

Without detracting from the glory of the work or presuming to present the author's conclusions previous to the publication of the complete article, the editor feels that he is justified in elaborating upon two startling facts that the essayist has apparently proved. They are so important that too much emphasis cannot be placed upon them, hence we mention them in order that none of our readers may miss the opportunity of studying, analysing and profiting from this contribution.

First, Dr. Oppenheim states very emphatically in the opening paragraphs that there is no such thing as biologic or physiologic tooth-movement. This shatters the claims of the vast majority of operators among whom the editor is included. Therefore this seems a most opportune time for him to acknowledge the error of his criticism (*Angle Orthodontist,* April 1931) of Milo Hellman's statement, (*Dental Cosmos,* June 1930) that "Physiological treatment can under no circumstances be construed to mean any sort of mechanical procedure, regardless of what type of orthodontic appliance is used, and how well it is manipulated and controlled." Dr. Oppenheim's essay gives proof that Hellman was right and I congratulate the latter and admit my mistake.

Second, controlled force of the lightest degree, intermittently applied, with lengthened periods between applications seems positively indicated. This means that there is a decided limitation to the speed of treatment yet it

does not indicate long drawn out treatments, the result of poorly stabilized mechanisms.

But what does this new evidence of omnipresent pathology in tooth-movement mean to orthodontia? To face the issue frankly we find ourselves shifted from the strong position of dealing only with normal tissue reactions into the more dangerous field of destructive and secondary constructive processes. We approach the status of the orthopaedist and the surgeon. Hence we have been handed new and even greater responsibilities in the performance of our operative procedures and, coincidently, we must refine our technical procedures to an even greater degree of accuracy than ever before. Truly orthodontia is no specialty for the careless, bungling operator to practice in.

Prognosis must be carefully rendered and the dangers of complications recognized at the beginning of treatment. As much work as possible must be done on the deciduous dentures and including teeth with incomplete root formation in active tooth-movement will be wisely avoided. Constitutional and hereditary influences must be more thoroughly analysed and their bearing upon tissue susceptilibity taken into thoughtful consideration.

This essay appears at a most opportune time. It should stimulate all efforts being exerted toward raising the standard of orthodontic education. More than ever before will the need for thorough grounding in collateral fields be recognized and admitted.

The honesty of the essayist deserves most generous commendation. He frankly admits his own faulty deductions based upon the application of previous animal experiments to human tissues. This is an example worthy of emulation by all of us.

Unquestionably much additional experimental research will be required to give further proof of these revolutionary deductions and this initial work will act as a stimulant to others to seek facts from human tissues. Controversy will arise and continue in existence for sometime to come but let it not be bitter or personal. The truth is what we all desire and eventually that which is true will stand out clearly and be permanent. In the meantime our clinical course should be influenced and modified by this new evidence which is offered as the result of carefully conducted research work by one whose ability, honesty and integrity is recognized by all. Hence the deductions of this author must be received with profound respect and admiration.

R.H.W.S.