

apparent to sight to suggest and establish the role of the elements of the organs of even the highest bodies. Most of that which we have already attained in this direction we owe to our Transatlantic brethren. We as Americans need more of the German persistency of mind that pursues the discovery and proof of a single point in biology during a long and laborious life, and less of the diffuseness of the *omnium gatherum* character of the American type of pathologists.

In consequence of a very little study in this direction, he was no longer able conscientiously to destroy the pulps of teeth under any circumstances; and, in testimony of the confidence with which he relied upon the doctrines here enunciated, he would detail a case which occurred the previous Friday. Female subject; superior canine tooth, exposed pulp; bled; touched with creasote, which arrested bleeding; filled with oxychloride of zinc; proceeded to work in another direction till the filling had set; then cut away oxychloride, leaving sufficient for a cap, and filled with gold; and if it is not a success he should be very much disappointed.

Dr. Buckingham. What takes place between the oxychloride and the pulp?

Dr. Atkinson. There is an affinity between the hydrochlorate of zinc (the fluid used with the oxide of zinc) and the albuminoid substance of the pulp, and at the point where the satisfaction is complete of this affinity an insoluble pellicle is formed. Beyond this, on the inner side, the coagulation is less and less, becoming simply astringent, collapsing the capillaries, driving the blood column—blood corpuscles and all—into the venous radicles, until the recoil of the column by the *vis a tergo* of the circulation reopens the arterial radicles and the capillary system, re-establishing healthy circulation, without the possibility of setting up the inflammatory process, or inducing the exudation of a single pus corporele. In case of a very weak pulp, and strong and abundant solution of the hydrochlorate, the coagulation may be effected to the foramen.

Dr. Buckingham. Is there any pain during any part of the operation when the pulp is in a normal condition?

Dr. Atkinson. Exposure itself is an abnormal state; but I have no pain manifested by my patients nor the patients of those who have faithfully followed my directions, as far as reported to me, and I have had many of these. The reason of there being no pain is the