

I. ADDRESS OF RETIRING PRESIDENT*

William G. Skillen, D.D.S., Dental School, Northwestern University, Chicago, Ill.

In art, in music, in literature and especially in the sciences, the great teachers are little known to the public while the names of some of their pupils have become household words. I have often wondered why this is so. The preceptor has rarely appeared in the limelight, but talented or inspired pupils who have absorbed his wisdom and applied it practically have been widely acclaimed. A few of you who perhaps have read the Bible are familiar with the fact that St. Paul "sat at the feet of Gamaliel" and absorbed his wisdom. Everybody knows of St. Paul but possibly few hold any reverence for Gamaliel.

The great teacher gives freely from the storehouse of his knowledge, which he has quietly but with infinite labor acquired, the facts which enable some scintillant mind in the group he is addressing to follow new thought-paths, with the result that the pupil may work out something startlingly novel and find himself more honored by men than is his teacher. It seems to me sometimes that teachers might very well be likened to the little spring rivulets which gather the moisture from the mountain tops. They feed the larger streams; and some of those streams may ultimately develop into an intellectual Mississippi, sweeping everything before it until it is finally lost in the great ocean of accepted facts.

Someone has spoken of endocrinology as a "towering structure in the sunshine." If one refers to a history of medicine, he immediately becomes impressed with the tremendous influence that Claude Bernard had in the development of this once embryonic science. From Saint Julien, the district in the vine-clad hills of France which produces the famous (but thin) claret, this poor but promising son of an obscure vintner went to Paris in the early part of the nineteenth century to find a producer for a five-act tragedy which he had written, having already had some success with a comic vaudeville skit. Fortunately for him and science, the critic whom he consulted saw

* This and the two succeeding addresses were delivered after the annual dinner at the sixth session (March 14), before the concluding executive proceedings (page 332).

another future than that of a playwright for this tall, earnest chap and persuaded him to take up the study of medicine.

At first things didn't go so well with him, for the paralysing hand of "recognized authority" was, if possible, even more potent than it is today. Claude was an original thinker, a trail blazer, who apparently was always in trouble with his teachers—just as many students are today over the question "Why"—until he met Magendie, who set his feet upon the path he was to follow with such distinction. And what a path it was! And how sincerely he walked it, with all of him, sacrificing upon the altar of his goddess, Truth, many things that other men hold most dear.

Dumas spoke of him as the essence of physiology itself. Pasteur gave him the highest praise. Napoleon was so charmed by his engaging personality that he made him a senator. So, in doing honor to some of the brilliant workers in endocrinology, we cannot deny this indefatigable scholar his just acclaim. But suppose for a moment that he had not met Magendie! Is it not conceivable that "the towering structure of endocrinology" might still be only a two-or-three story building?

One gets the impression that but little praise is Magendie's lot. One must look rather far to find a likeness of him. But reading of this relationship, I couldn't help wondering exactly to whom rightfully belongs the title of founder. Magendie was certainly something of a research worker, although it is said that he was constantly groping in the dark, experimenting haphazardly. Perhaps this was because he was, by nature, a teacher; perhaps just preparing unknown ground. Are men of great motive power ever the best teachers? The imperative type that would bend all minds to match its own may build bridges, erect tunnels, capture cities, but not necessarily teach. In the presence of such a personality, spontaneity tends to droop and thought to slink away. To give yourself in a way that will inspire others to think, to do, to become—that would seem to me to be the true essence of teaching. To be a good teacher demands a high degree of altruism, for one must be willing to sink self in order that others may rise to the point of being able to do without him. Had Claude Bernard not come into the hands of this great teacher—for one can hardly speak of him as other than that—is it

not possible that his name might never have gone down in the history of medicine?

Bernard was a builder who never deviated from the path indicated for him. Magendie divined this, and was great enough to recognize that here was one who was better equipped to carry on with the building of the structure with which he had been fumbling; and he was generous enough, when the time came, to proclaim that his pupil was a better man than himself.

The other day, as I stood looking at one of our magnificent skyscrapers with all of its cornices and other embellishments, the thought occurred to me that the fellows who sink the caissons and lay the foundations may get a kick out of their work but they certainly are short on glory. The structural steel-workers, out where folks can see their deeds of courage, are celebrated in conversation and press. The fellow who lays the cornerstone gets his picture in the papers, and the architects and financiers are given tiresome banquets, but after the building has reached completion, who cares about or even bothers to give a thought to the mud diggers who labored and sweated underground so that all of the superstructure might have legs on which to stand? It's a far cry from Vesalius to Crile, but the latter could have done none of the wonderful restorative work upon the human structure that he has accomplished had it not been for Vesalius' untiring and intelligent investigation in dingy quarters on very stinking cadavers. These structures which have arisen and which man sees, admires and lauds, must of necessity be erected upon a firm foundation of facts and known measurements or they will soon topple to the ground.

In relinquishing my office as president, I should like to leave one thought with all of you. Most of us in this group are both teachers and research workers. It is highly improbable that the work of any of us will go down on record as in any way comparable to the work of either of the men about whom I have been speaking. Yet, in another sense, our work is just as important. If we maintain the true spirit of teaching, endeavoring to suggest, inspire, encourage, and to convey to others with sympathy and understanding, the knowledge and experience we have gathered that they may carry

on in the field of dentistry, then we are playing rôles just as important as those of greater teachers who have gone before us. If we, as research men, work with intelligent and purposeful direction of thought and action—at the correlation of facts that we may find new meanings for the benefit of others—then we are doing a very important bit toward the furthering of dental science. But let us not forget that both types of work are essential, although adeptness at one may not necessarily mean adeptness at the other, and that perhaps describes Magendie.

At times it has seemed to me that too much attention and pressure have been brought to bear upon research and not enough on teaching. By all means, let us investigate and search for new footholds upon the frontiers of science and publish the results for the benefit of all. But in our eagerness and haste for progress and recognition, let us not be satisfied with surmise. Let us not run the danger of becoming, as someone so aptly put it recently, a “paper mill”—sacrificing our high ideals by turning out work that has not been subject to rigid verification—to cater to any foolish whims and tendencies. Whether or not our digging and caisson laying are ever highly applauded, may any foundations that we build be steadfast and unyielding.

In closing, I wish to express my appreciation of all that the Baltimore group has done to make this meeting the success it has been. I am totally unable to express my appreciation of all Dr. Aisenberg, especially, has done for me personally and for you—this meeting could never have functioned as well without him. I want also to thank Dr. Gies for his usual wholehearted coöperation and his tolerance of my ineptitude. I could not bring to an end these pleasant duties without paying due respect, also, to the Committees on Publication and Endowment of the *Journal of Dental Research*, for their sincere, devoted, and highly successful efforts against great odds. The work of each committee deserves hearty commendation and support. In the same terms, I wish to express appreciation of the efforts of many others in the endeavor to make a cumulative success of our most important adjunct, the *Journal*.

Gentlemen, it has been a sincere pleasure to serve you and I hope I haven't let you down too greatly. However, it is with no small

feeling of relief but with extreme happiness that I now turn over this honor to a "little big man,"—a better man, if you please—my good friend Kitchin. Happy landings, Paul!

II. INTRODUCTION OF PRESIDENT-ELECT

George C. Paffenbarger, D.D.S., F.A.C.D., Research Associate, American Dental Association; National Bureau of Standards, Washington, D. C.

As a Turkish horseman was wending his way across a desert trail, he came upon a traveler footsore and weary. Taking compassion upon the footman, the horseman invited him to mount and ride with him to the next village. In their conversation, it was revealed that both were strangers in this section of the land. Using this information as his cue, the footsore traveler, cunning and ungracious rascal that he was, hatched this diabolical scheme: Said he to his host, when they were on the outskirts of the village, "You are not known here; neither am I. These people do not know whether this horse is yours or mine. I am going to claim it and, amid the clamor of our claims, I may be taken as the owner and then I will ride off with your horse." The ensuing fight caused a crowd to collect and as both contestants shouted liar and thief at each other, the mob dragged them off to the Caliph, who asked each man to tell his story. They told almost identical stories. Each had been riding on a horse, each had offered hospitality and each was being robbed of almost his sole fortune—his horse. The Caliph questioned neither, but ordered them both to prison. In three days he issued a command for their return and stated that he was ready to pronounce judgment, but that if the guilty one would now confess, the penalty would be light. Both the thief and his host stoutly maintained their innocence. Then the Caliph turned toward the owner of the horse and said: "I have unjustly delayed you and imprisoned you. Name the penalty which you wish this thief to suffer." "Not now, most learned Caliph," returned the owner of the horse: "Take him away for I must talk with you."

After the prisoner was taken away, the horseman said: "O, most wise master, tell me how you knew, tell me what wisdom you have that enabled you to decide who was guilty. May Allah always

bless you with his bountiful mercy.” “Gracious man,” replied the Caliph, “I racked my brains for three days, before I thought of a solution. I merely had you and the imposter led past the stable where your horse was quartered, and I observed that your horse recognized your voice and your footsteps, and I was certain that you were the rightful owner of the horse.” (Baldwin: *Fifty Famous Stories*; 1896.)

This ability, for which the Caliph was justly honored, of reducing his problem to its elements and of approaching it from a truly investigative point of view, cautiously and objectively, is likewise possessed to an unusual degree by the man whom we welcome tonight as our new President. It enabled him to support himself while attending high school and college, to graduate with high honors, and to be elected to the society of Sigma Xi. It enabled him to initiate and develop a program of dental research at his Alma Mater, Ohio State University. If one were to dissect his personality, the trait of sincerity would, I believe, be found to be one of his outstanding characteristics; and for sincerity there is no substitute. I present him to you as a fellow research worker, as a fellow teacher, as a fellow student, and as a man. Those who really know Paul Kitchin appreciate him. May you all have that opportunity before the end of next year.

III. INAUGURAL ADDRESS

Paul C. Kitchin, B.S., M.S., D.D.S., F.A.C.D., Dental School, Ohio State University, Columbus, Ohio

One cannot but be impressed, from a national as well as a professional point of view, by the rich historic setting of this meeting. Maryland—“the Old Line State,” from the days of Sir George Calvert, the earliest Lord Baltimore, down through the years—has been first in many ways. Since its beginnings, between Chesapeake Bay and the Potomac River, events have transpired on that peninsula which were destined to exert a powerful influence on our national history and the path of social progress. Baltimore has been called “the most western of the eastern ports and the most northern of the southern ports.” In the days before steam the famous Baltimore clippers were the pride and toast of the nation. When Morse’s

first public telegraph message was sent from Washington it went to America's first passenger and freight railway station in Baltimore. The first metal writing-pen was made here, and the first revolving printing press was used here, the first submarine was made in Baltimore, and it was the first city to be lighted by gas.

A consideration of all these pioneering efforts makes it less remarkable to an outsider that Baltimore should have been the place where Bond, Baxley, Hayden and Harris established the first dental school. As a loyal son of another famous state, I hasten to add that the flickering light of the torch that was dentistry in Baltimore was soon reinforced by a second torch on the banks of the Ohio. Others followed and the century which has now almost run its course has seen that first dental college multiplied over forty fold on this continent.

In the midst of this rich profusion of national and professional historical associations I, for one, find myself frankly abashed. In the status in which I come before you at this meeting, the words of Emerson assume for me an even greater significance than they have had under other circumstances, when he said: "There comes a time in every man's education when he arrives at the conviction that envy is ignorance, that imitation is suicide, that he must take himself for better, for worse as his portion." To be selected for the presidency of the International Association for Dental Research is a signal honor. In the past it has been bestowed on a group of illustrious men, each of whom richly deserved the distinction which the office carries. For my own part I am subject to no hallucinations regarding the value of anything that can be called a personal contribution to dentistry. I do derive some degree of consolation, however, from this statement by C. F. Kettering in his delightful address, "The Rocky Road of Research:" "Unintelligent motion is more important in research than intelligent standing still." I like to assume that I have been, at least at times, in motion.

It is with a keen appreciation of the confidence you have placed in me, and an equally keen realization of my shortcomings, that I enter into the presidency of this Association. It represents to me the embodiment of what Waite, in a recent article on dental education, calls "climbing the hill back to scientific and professional status."

This Association is an organization devoted to the purpose of attacking the problems of dentistry with the weapons provided by the fundamental sciences, and of maintaining an open road for the publication, in a scientific *Journal*, of such information as may result from this attack. In the years to come the man who founded and nourished this Association, and all of us whose feeble efforts may have in any measure added to its growth, will have increasing cause to be proud of the part that the International Association for Dental Research will have played in the history of the dental profession.

IV. INDEX OF NAMES OF PARTICIPANTS, AND SEQUENCE NUMERALS OF CORRESPONDING ABSTRACTS

Adler, 83, 89; Aisenberg, 4; Anderson, 47; Appleton, 29, 59, 60, 100; Armstrong, 26, 27; Ball, 61; Barrett, 53; Beall, 19; Beust, 11; Bibby, 61, 62; Biro, 83; Bödecker, 55; Boucher, 5; Boyle, 44; Brawley, 101, 115; Breitner, 84; Brekhuis, 26, 27; Brickman, 58; Brooks, 29; Brun, 67; Bunting, 40, 41; Burket, 56, 57; Burn, 45; Byrd, 63; Byrnes, 69; *Campbell, 102; Chase, 6, 7; Cook, 103; Cox, 12; Cramer, 66; Crowley, 39; Dietz, 59, 100; Douglas, 60; Driak, 85; Edwards, 2; Fosdick, 123; Gette, 60; Goldstein, 50; Gordon, 104; *Grohs, 86; Grossman, 58; Gunter, 29; Hall, 105; Hammond, 28; Hatton, 52; Hill, 106; Hodge, 31, 33, 34; Hofer, 90; Hoff, 75; Hoffman, 112; Jay, 40, 41; Karshan, 20, 23, 24; *Kellner, 87; Kelsey, 68; Kerpel, 88; Kitchin, 2, 8, 74; Klinger, 76; Koch, 107; Kömives, 79; Köszege, 75; Krasnow, 108; Kronfeld, 48; LeFevre, 35; Lefkowitz, 55; Losch, 15; Makovényi, 77; Manly, 31, 32, 35; Massler, 113, 114; Mathis, 89; McBride, 36; McCollum, 71; McCrea, 49; McFarland, 8; Mills, 37; Miner, 70; Moon, 13; Moose, 118, 119, 120; Morse (F), 15; Nelson, 54; Noriskin, 109; Noyes (H), 46; Oartel, 9; Orten, 45; Osborn, 109; Paffenbarger, 17, 73; Peyton, 43; Pichler, 90; *Pohl, 91; Porosowska, 108; *Preisseecker, 92; Price, 110, 111; Reader, 29; Rehak, 78; Rickert, 39; Rittershofer, 42; Robinson (J), 1, 64; Robinson (H), 30, 105; Rosebury, 21, 22, 23, 24, 25; Russell, 65; Sanford, 46; *Schiller, 93; *Schönbauer, 94; Schoonover, 16; Schour, 112, 113, 114; Scott, 43; Sedwick, 101, 115; Shubin, 53; Sicher, 95; Simon (B), 79; Simon (W), 26; Skillen, 3, 72; Smith, 45; Sorrin, 14, 51; Souder, 116; Sprawson, 117; Staz, 109; Stein, 96; Strong, 29; Swanson, 10; Sweeney, 18; *Szabó, 80, 81; Szokolóczy-Syllaba, 82; Tainter, 118, 119, 120, 124; Taylor (P), 121; Taylor (W), 122; Tenenbaum, 20; Teuscher, 123; Thomson, 40; Thronson, 118, 119, 120, 124; Trauner, 97; Tunncliff, 28; Ullik, 98; Van Huysen, 13; Van Kirk, 10; Walker, 38; Walley, 3; Ward, 43; Waugh, 125; Weaver, 8; Werle, 6, 7; White, 40; Wolf (E), 10; Wolf (H), 99; Zimmerman, 29.

V. FIRST SESSION: MORNING, MARCH 13; ABSTRACTS 1-12

1. DR. BENJAMIN FENDALL (1753-1818): PIONEER AMERICAN DENTIST. *J. Ben Robinson, D.D.S., F.A.C.D., Dental School, University of Maryland, Baltimore, Md.* Dr. Fendall, born in Charles County, Md., in 1753, was directly descended from Josias Fendall, fourth

* No manuscript received for publication.