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CONTENTS

<i>The Lure of Medical History</i> : DR. E. B. KRUMBHAAR	1
<i>Exit Huebner's Tentamen</i> : DR. W. J. HOLLAND	4
<i>George Bishop Sudworth</i> : WILL C. BARNES	6
<i>Scientific Events</i> :	
<i>Memorial of the Research Club of the University of Michigan; The National Arboretum; Mosquito Control; Award of the Langley Medal; Appointments at the Rockefeller Institute for Medical Research</i>	8
<i>Scientific Notes and News</i>	10
<i>University and Educational Notes</i>	13
<i>Discussion and Correspondence</i> :	
<i>Concerning "Species-grinding"</i> : DR. DAVID STARR JORDAN. <i>Biology versus Mythology in a Criminal Court</i> : PERCY VIOSCA, JR. <i>Datum and Data</i> : DR. W. W. KEEN, CHARLES H. BLAKE. <i>Airgraphy or Aerography?</i> DR. ALEXANDER MCADIE. <i>"Astro-nomic"</i> : DR. RAYMOND S. DUGAN	14
<i>Scientific Apparatus and Laboratory Methods</i> :	
<i>Directions for determining the Colloidal Material of Soils by the Hydrometer Method</i> : DR. GEORGE J. BOUYOUCOS	16
<i>Special Articles</i> :	
<i>The Life History of Tapeworms of the Genus Mesocostoides</i> : DR. BENJAMIN SCHWARTZ. <i>Acclimatization of Bufo Tadpoles to Ethyl and Methyl Alcohols</i> : DR. HARRY THOMAS FOLGER	17
<i>The American Association for the Advancement of Science</i> :	
<i>The Second Nashville Meeting of the Association and Associated Societies</i> : PROFESSOR BURTON E. LIVINGSTON	19
<i>Science News</i>	x

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THE LURE OF MEDICAL HISTORY¹

THE advantages of a respectable acquaintance with the history of one's profession should be obvious to all and have been recognized by many. Littré, the great lexicographer, realized that without its background a science is reduced to the category of a mere trade, and Goethe with no great poetic license maintained that the history of a science is the science itself. If "each age steps on the shoulders of the ages that have gone before" (Foster), then certainly those who hope to be in the forefront of medicine must be acquainted with the body of the preceding age on whose shoulders they are to step. As a matter of practical importance, too, knowledge of how knowledge accrues and of the mistakes of the past is of prime importance in preventing similar mistakes in our present work and no one is on more unsafe ground or slips with less regret on the part of the onlookers than the coxcomb, who, disregarding the past as a dead and buried conglomeration of futile and incorrect superstitions, stakes his all on his own limited vision. As Osler says, "By the historical method alone can many problems in medicine be approached profitably. For example the student who dates his knowledge of tuberculosis from Koch may have a very correct, but a very incomplete appreciation of the subject." As a matter of fact, how many go even as far back as Koch?

If this is so widely recognized, why is the average ignorance of the history of our art so appalling? Chiefly because of the college and state board examinations, which before all else must be passed, so that with rapid accumulation of the facts of medical science, the curriculum becomes more and more overcrowded, the "exam" correspondingly more difficult and your vicious circle is established.

Fortunately, there are signs of a rift in the clouds, permitting the undergraduate student to regain from the curriculum time for thought and the cultivation of some of what might be called the "belles lettres" of his chosen profession. Prominent among these is the history of medicine, which, if impossible for most of us to cultivate as a scientific discipline on account of more pressing work, can at least fill the position of that most useful and important activity—a hobby. Many an American physician has drawn boundless pleasure from this particular hobby and a few even

¹ From the laboratories of the Philadelphia General Hospital. An address to the Piersol Anatomical Society of the University of Pennsylvania, February 18, 1927.

have made it produce valuable contributions to the subject. Who can estimate what pleasure and benefit Osler, for instance, got from medical history, and not the least of his contributions to the art in which he became world famous was in this domain.

How can we best begin to acquire an interest in this topic, so fascinating if properly approached, so repelling as it is unfortunately often thrust at us? Certainly not by sitting down with ponderous dusty tomes, which dogmatically expound the general subject, determined to master them at the rate of so many pages a day or week. Here, above all, must we avoid what the French have so aptly termed "*l'ennui de tout dire*." Neither, except the teacher has the gift of tongues, can we get the spirit from systematic lectures on medical history. Such a prescribed course was given when I was an undergraduate by a lecturer on the subject who after about twenty lectures had not yet covered the Egyptian period! Small wonder that but few were found conscientious enough still to attend. Lectures on special topics, on the other hand, can be made most interesting as well as instructive. Dr. Charles Singer, one of the most eminent of English-speaking medical historians, gives such a course at the University College Hospital, London, covering different fields each year. When I was there three years ago, he was lecturing on the acute infectious diseases. The lecture that I heard, devoted to the history of syphilis, was attended by over one hundred students and physicians and was illustrated with numerous lantern slides and exhibits of interesting old books and prints on the subject. The elective course offered here by Dr. Packard last fall was along similar lines, but unfortunately his illness forced him to abandon it when he had only covered the subject of anatomy. If given next year, as I hope it will be, I should certainly recommend its selection as an elective by the senior students. Also it has no examinations!

Now how can one best begin one's own acquaintance with a subject, from which, as in any other activity, one gets out about as much as one put into it? While each individual will work this out best according to his own temperament, most will find their interest most actively stimulated by selecting some topic, perhaps already suggested by an incident in their medical work and really learning a lot about that one subject or perhaps even contributing to the general knowledge of the topic. This of course requires that the topic selected be not too large. I have followed such a plan more than once to my own satisfaction. Having had to work with heart block as a second-year student, I chose the history of the subject when assigned a task for my undergraduate medical society (now alas defunct)

and am confident that this was a potent factor in keeping me interested in this condition ever since. Your teachers are frequently dropping chance or purposeful remarks that will serve admirably as a catalyzer for any one on the alert to begin some reading of this kind. If still lacking a subject, an appendix to Garrison's "*History of Medicine*" suggests a number of such topics, sufficiently restricted to be mastered without exorbitant demands of time.

For instance, with the inroads now being made on legitimate medicine by osteopathy, chiropraxy and the various isms, any one of us should be interested in learning about the quackery and superstitions of previous ages—yes, and having learned about them, be better able to cope with what later might become a very practical matter directly affecting the fatness of our own pocketbooks.

He among you who has already picked out his own specialty—not always a wise thing to do at this stage of your career—is bound to have more satisfaction out of his life's work, as well as being a better hand at it, if he is well acquainted with its past. This research in itself will give him some of the pleasures of an investigator—for few of the specialties have had their history written up as such. Most of us at one time or another have wanted to be an obstetrician. What, for instance, is the history of this most ancient of specialties and how recently did it graduate from the midwife stage?

We are all more or less hero-worshippers at bottom—a quality to be proud of rather than ashamed of—and our profession has had more than its share of heroes. Why not become more intimately acquainted with some of these giants? What can be more dramatic reading than the story of Walter Reed, yellow fever and the Panama Canal; Ronald Ross and the malarial mosquitoes or Bruce and the tsetse fly? Pasteur was recognized by French popular vote as a greater national hero than Napoleon and is now commemorated by a special set of French postage stamps in current issue, and yet the average medico knows much less of the life of this altruistic, constructive genius of a kindred profession, whose work influences practically every step he takes in his daily rounds, than of the egotistical, destructive general who crippled his country in acquiring personal fame. How many of us carry our acquaintance with Pasteur further than the pasteurization of milk or the treatment of rabies? Lister's epoch-making work was done during the youth of many still living and yet to how few of us is he anything more than the prefix to a mouth wash? Liebig, one of the discoverers of chloroform and a pioneer in many branches of physiological chemistry, exists to most of us as an "ad" for meat extract.

You, over there, who a few years ago were debating whether you would be a physician or a painter, why not find out how many men in the past have been both and what effect the combination had on them or, more broadly, what effect has art in general had on medicine? Such physician writers as S. Weir Mitchell, Oliver Wendell Holmes or poets such as Garth, Armstrong and Goldsmith should awaken our curiosity to know how many more have drunk of the Pierian spring as well as successfully followed some phase of medical art or science.²

If preventive medicine is to dominate the medicine of the next generation, surely he who is acquainted with its successes and failures in the past will be better equipped to adapt himself to and profit by the situation in the future. And so on through dozens of topics, too numerous even to hint at, that will suggest themselves as readily to you as I can. Break the ice, take the initial step and the rest will follow of its own impetus.

As Emerson has said, "Take hold anywhere," and Garrison³ has suggested a number of such amusing lines along which medical students might break into medical history:

The gold headed cane, St. Anthony's fire, the red and white stripes on the barber's pole, the duels of physicians, the blood suckers who attended duelists in the eighteenth century in order to suck their wounds, the wound drinks of the middle ages, the purgative inks of the Arabians, the anodyne necklaces, quassia and antimony cups of the past as compared with the medicated milks, iodated foods and diuretic wines of the moderns, cupping and leeching, the seton and the moxa, the sympathetic powder for healing wounds at a distance, the use of the bare foot as a thermometer in the middle ages, the introduction of Dover's powder by a buccaneer, the statues erected to the memory of great physicians and the streets named after them, the quacks of the eighteenth century, the medical graduation ceremony, the use of botanical gardens to teach materia medica, hex-doctoring in Pennsylvania, the medical superstitions and folk-ways of different races, any one of these subjects, taken at random as a starting point and closely studied, will throw you into the full current of medical history.

² Dr. Garrison furnishes the following additional names: (poets) Akenside, Beddoes, Blackmore, Bridges, Campion, Crabbe, Haller, Head, Kussmaul, Littré, Lodge, McCrae, Record, Ronald Ross, Saint Beuve, Schiller, Sherrington, Thayer, Volkman, Werlhof; (artists) John Bell, Bright, Seymour, Hayden, Hodgkin, Leidy, Leonarde, Lister, Pasteur; (musicians) A. de Bary, Borodin, Sir Robert Christian, J. W. Farlow, A. G. Gerster, Hemmeter, Hermann, Jacobson, Kahlbaum, Duke Karl Theodor, J. Loeb, Naunyn, Max Schultze.

³ *J. Am. Med. Assn.*, 1916, LXVI, 319-324.

Soon the desire will come to piece together the fragments thus acquired, or to the methodical mind a preliminary survey of the whole field will perhaps be a first requisite. Then such readable and reasonably brief outlines as Osler's "Evolution of Modern Medicine," Seelig's "Lectures," Dana's "Peaks," Park's "Epitome" or Libbey, Withington, Baas or Dunglison—all one-volume works—can be read with profit, even though it may not be possible to read any one from cover to cover. Garrison's history is in a class by itself, comprehensive, accurate, concise, *mirabile dictu*, easy and pleasant reading. It is a model of what such things should be and is by all odds the first book on the subject for a student to buy. The larger more detailed histories, Neuburger, Pagel, Haeser, Hirsch, Daremberg, etc., all in foreign languages, can be considered "for reference only" by us amateurs (in both senses) of the subject. On the medical history of our own country, Packard's book is authoritative and I understand that there is soon to be another edition; and in the history of medical history, the seventeenth century works of Le Clerc and Freind (the two first on the subject) are quaint and interesting.

Finally let me repeat that while I am suggesting nothing that will help pass your examinations or perhaps even attract patients when you first hang up your shingle, I can assure you that the development of a love for and an acquaintance with the history of your profession will bring you something much more profitable in the long run—a capacity to advance further in that profession and a greater personal satisfaction in your work and play, both while so doing and after the more active days are past.

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- (See also Appendices in Garrison's History.)

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EXIT HÜBNER'S TENTAMEN!

ALL lepidopterists having a thorough knowledge of the nomenclature of their science will welcome Opinion No. 97, recently handed down by the International Commission on Zoological Nomenclature. (See SCIENCE, LXV, p. 301.) This opinion should terminate for all time the contention concerning Hübner's "Tentamen," long ago thought to have been settled, but which recently has been revived in certain quarters.

Hübner's "Tentamen" is a small quarto sheet issued by Jacob Hübner, of Augsburg. The title is: "Tentamen determinationis digestionis atque denominationis singularum stirpium Lepidopterorum, peritis ad inspicendum et dijudicandum communicatum, a Jacobo Hübner." Literally translated, the title is

"An attempt to fix, arrange, and name the individual races of Lepidoptera, submitted by Jacob Hübner to experts for examination and the expression of an opinion." At the end the author adds a warning, "Ne expectet quis, ordinem hunc nullam amplius correctionem esse desideratum, verumtamen magis satisfaciet necessitati, quam prævius quivis. Familiis indicandis supersedere malui." This warning says: "Let no one expect that this arrangement makes further correction undesirable, but it will more nearly satisfy necessity than anything which has gone before. I have preferred to place [it, i.e., 'the order of Stirpes'] above the families, which are to be indicated."

In order to understand what Hübner meant it is necessary to understand the system of classification which he employed. It was an advance upon that originally proposed by Linnæus. Linnæus in his "Systema Naturæ" established among the insects the order *Lepidoptera* to include the butterflies and moths. Linnæus set up only three genera: *Papilio*, *Sphinx*, and *Phalæna*. Into these three genera he put five hundred and thirty-five species: one hundred and ninety-two species under *Papilio*; thirty-eight species under *Sphinx*, and three hundred and five species of moths under *Phalæna*. Linnæus himself recognized the incongruities arising from thus throwing together a multitude of forms into but three categories, or *genera*, as he called them. He attempted to bring about a subdivision by resorting to quadrimomials, intercalating fanciful and grotesque subdivisions, which exact systematists with more time and material at their command later have discarded, or modified, adopting some of the names he employed as generic and reducing his quadrimomials to binomials. But this does not concern us at this point.

The system adopted by Hübner involved a number of subdivisions. It is as follows:

Order LEPIDOPTERA

- a. *Phalanges* (Germanice Horden; Anglice hordes) = SUBORDERS, in modern parlance.
- b. He divided the *Phalanges*, or Hordes, into *Tribus* (Germanice Rotten; Anglice tribes) = SUPERFAMILIES.
- c. He subdivided the *Tribus* into *Stirpes* (Germanice Stämme; Anglice races, or clans) = FAMILIES, as now used.
- d. He subdivided the *Stirpes* or races, into *Familie* (Germanice Familien; Anglice families) = SUBFAMILIES, as now used.
- e. He subdivided the Families into *Coitus* (Germanice Vereine; Anglice unions) = GENERA in the Linnæan sense.
- f. He subdivided the *Coitus* into *Genera* (Germanice Arten; Anglice kinds, or species) = SPECIES in the Linnæan sense, and as now employed.