

spread in the thought and hearts of hundreds of thousands a paralyzing fear that never should have been created."

We print below the quotation, not as printed in the *Monitor*, but resupplying in brackets the very essential phrases which the garblers so carefully left out.

"Adults are very little endangered by close contact with open tuberculosis, and not at all in ordinary association. [Childhood is the time of infection, youth the time of superinfection, and that from extension of the primary disease.] Qualify these statements as we may, it is time for a reaction against the extreme ideas of infection now prevailing. There has been too much read into popular literature by health boards and lectures that has no sound basis in facts, and it needs to be dropped out or revised. [More protection of children and better hygiene for adults are logically demanded, but beyond this] the preachments about the danger of infection to adults in the present state of society are without justification from an experimental standpoint. [The statements which we have quoted] represent not one man's views, but what seems to be the growing conviction of [many of] the most progressive and thoughtful students of tuberculosis at the present time."

As will be at once evident, the elisions in brackets entirely alter the statements made by Dr. Baldwin. No one capable of understanding the paragraph as given in full would see in it any grounds for attacking the building of tuberculosis hospitals, or of reducing in every possible way the spread of tubercle bacilli, especially in the home and in public places, where children, with resistance as yet not developed, may readily acquire an infection more extensive than they can possibly overcome. Yet, in the year 1914, with the enormous reduction in the tuberculosis mortality an absolutely established fact throughout the civilized nations following sanatorium treatment and public health methods for restriction of the disease, there are still persons whose minds are so warped and atrophied by religious fanaticism that they would attack and endeavor to abolish all these safeguards of the health of both sick and well. And in their efforts to do so, they do not hesitate to misrepresent and deceive their readers and the public.

#### TOBACCO-SMOKING AND THE CIRCULATION

It cannot be said that there is a dearth of literature on the relation of tobacco-smoking to health. The data available are, however, tinged in large measure with all manner of biases; and even where the subject has been approached with an "open mind," there is no guarantee of sanity in the conclusions which have been reached. The circulatory mechanism of man is continually played on by conflicting impulses, so that the conditions of blood-pressure and pulse-rate that prevail from time to time may be the outcome of regulatory influences and directive forces so diverse and changeable as to defy

the powers of immediate interpretation. Here, as elsewhere in medicine, many an error of conclusion has been committed because of inability to distinguish the causal factor from a large number of variable agencies. We recall that R. C. Cabot has rejected the evidence that alcohol, for example, is so potent an influence in causing degeneration of the blood-vessels as has been frequently argued. To quote a recent writer, "in a middle-aged man who has drunk freely, eaten largely and worked hard, it is impossible to say which of these factors is responsible for the degeneration of his blood-vessels." In view of the foregoing it is not strange that Osler should remark that tobacco is another poison about which it is very difficult to get conclusive evidence.

The modern equipment of the clinical laboratory has made it possible to study certain phenomena with a degree of precision formerly unknown. Accurate determinations are incomparably safer guides to convincing conclusions than guess-work impressions, which are still so largely (and necessarily) the characteristic stock in trade of the clinical observer.

Dr. John,<sup>1</sup> in the clinic of Volhard at Dortmund, has made a recent study of the influence of tobacco-smoking on the circulation. The question at issue involves the effect on the blood-vessels of continued smoking to a degree not productive of obviously toxic phenomena.<sup>2</sup> At the outset it may be admitted on the authority of the hygienist Prof. K. B. Lehmann of Würzburg that, aside from the alkaloid nicotin, the other constituents of tobacco-smoke, namely, carbon monoxid, hydrogen sulphid, hydrocyanic acid, pyridin and its homologues, are without toxic importance in the concentration and under the conditions in which they are ordinarily manifested in smoking. The debate on the cigar versus the cigarette, on "strong" versus "mild" cigars remains untouched.

Dr. John's blood-pressure measurements indicate that the smoking of two "medium" cigars evokes characteristic alterations in arterial pressure in typical cases. Even during the act of smoking there may be evidence of undeniable rise in diastolic pressure, and the effect may persist for as long as two hours. The essential feature in the nicotin effect on the vasomotor apparatus consists in a constrictor stimulus to the vessels which results in increased tonus. The behavior of the pulse-rate is variable. Eight or ten Russian cigarettes give a vasomotor result comparable with two "medium" cigars. Cigars of low nicotin content do not produce a recognizable effect on the circulation.

Despite the interfering complications attributable to pressor and depressor influences, which enter in diverse ways into the daily routine, the smoking of from eight to ten cigars, or from twenty-five to thirty cigarettes

1. John, H.: Ueber die Beeinflussung des systolischen und diastolischen Blutdrucks durch Tabackrauchen, *Ztschr. f. exper. Path. u. Therap.*, 1913, xiv, 352.

2. Nicolai, G. F., and Staehelin, R.: Ueber die Einwirkung des Tabackgenusses auf die Circulationsapparate, *Ztschr. f. exper. Path. u. Therap.*, 1908, viii.

during the course of the day is by no means negligible, if we may believe the statements made by John. The widely current impression, based in part on experimental investigations, that nicotin can produce vascular alterations in the sense of sclerotic changes is thus confirmed. We may argue as we will that habitual smokers have consumed extraordinary quantities of tobacco over long periods without signs of vascular change, and that it is difficult to believe that tobacco can, as a rule, have any important influence beyond what the ordinary wear and tear of life itself would warrant. Nevertheless, we are in duty bound to take cognizance of careful blood-pressure measurements and to consider seriously the advisability of extreme moderation in smoking, to say the least, in conditions where the familiar untoward possibilities are threatened. Indifference to scientific evidence is an intolerable attitude.

---

#### EVASION OF ENTRANCE REQUIREMENTS TO MEDICAL COLLEGES

Those familiar with conditions in some of the medical colleges of Chicago will not be surprised at the "story" which appears this week in our Medical Education Department.<sup>1</sup> The investigation shows that fraudulent credentials of preliminary education, secured through a local institution, have been accepted by a Chicago medical college. The fact that this story centers around one school is merely incidental: the information which led to the investigation pointed quite as much to two other local colleges as it did to the one in question. The acceptance of questionable entrance credentials prevails to a greater extent in Chicago than elsewhere, although makeshifts if not fraudulent devices for admitting medical students whose qualifications are below the standard are employed in probably two or three other cities. Not only are these efforts to nullify the medical practice act or the rules established by state boards dishonest, but also they work a serious injury to the medical student, who is laying a foundation for his life's work. He is led to believe that he has a satisfactory and adequate preliminary training, when he is, in fact, entirely unprepared for the complicated and difficult course in medicine which is to follow. He is permitted and encouraged to enter a medical college with inferior qualifications, when he should be spending his time in securing the proper foundation for his medical course. By the time he has realized his deficiencies, it is too late for him to go back and make up his shortcomings. As a result, he is handicapped throughout his professional career, the medical profession is burdened with another half-trained member and the public is endangered through a physician whose training is not what it should be.

The necessity for thorough preliminary training as a condition for admission to the modern medical college

cannot be too strongly emphasized. There may have been a time when a knowledge of the three R's was sufficient for the medical student. That time, fortunately for the public, is past. In recognition of this fact, efforts are now being made by the proper authorities in practically every state to raise the standard of entrance requirements for medical colleges and to require one or two years of college work, in addition to a standard high school course. The medical colleges themselves, in the main, are endeavoring to elevate their own standards. Approximately seventy of the one hundred and six medical colleges in the country are now requiring one or two years of college work in addition to a high school course. In all of the states, a four-year high school course, or its equivalent, is properly regarded as the lowest educational preparation which can be accepted from any prospective medical student. Yet in Chicago some of the medical colleges are not enforcing even this minimum requirement, but are accepting credentials based on little or no actual work. Such a practice is not only an evasion of the law, it is unfair to the medical student, the profession and the public. On whom rests the blame? While the moral responsibility may rest on the colleges implicated, it must be remembered that commercial medical colleges are conducted for gain and not for altruistic purposes, and that so long as such colleges exist, so long as they are dependent for their support on student fees, and so long as no effective control is exercised over them, just so long will such practices continue.

The blame and the responsibility clearly rest on the officials appointed by the state to safeguard the rights and interests of the public in such matters, namely, the state licensing board. This board constitutes the only barrier between the public and the incompetent physician. It is not compelled to adopt detective methods to secure the facts. It is not necessary for it to carry on any lengthy investigation. It can demand detailed information concerning the schools attended and the credentials presented by every student who enters these medical colleges; and it is the only body that can legally make such a demand. Meanwhile, the fact that the conditions referred to exist in Chicago should not be considered a reflection on the recently appointed state licensing board of Illinois. It is hoped that this new board will perform its duty in a conscientious manner, and that the people of the state may not look to it in vain for protection against these credential mills and against illiterate and unqualified physicians.

---

**Tuberculosis in the Army in 1912.**—According to the *Army and Navy Journal*, the highest rate for tuberculosis in the army barracks for the calendar year of 1912 occurred at Vancouver and Fort Flagler, Wash. At Vancouver there were twenty-three cases with a rate of 17.87 per thousand; at Fort Flagler, a rate of 13.25 per thousand. Of 273 cases of tuberculosis in the Army in 1912, seventy-three, and in 1911, out of 258 cases, sixty-eight were detected in the first year of service.

1. See page 477.