

the "abiturienten Examen," which secures that he possesses a thorough general education. The "abiturienten Examen," which is usually passed before leaving school, consists of a written examination in the following subjects:

*Religion.*—History and Dogma.

*Mathematics.*—Including Trigonometry.

*Natural Sciences.*—Including Chemistry, Physics and Botany.

*Latin.*—Unseen Translations and also a Theme to be written in Latin on some Philosophical subject.

*Greek.*—Translations.

*French.*—Language, German Essay.

The candidate is required to produce certificates of having satisfactorily passed examinations in History, Geography, and some other subjects. As soon as the candidate has passed the above he is required to pass another examination, *viva voce*, in Latin literature, in which he is obliged to speak Latin literature, and also in the literature of France and Germany. He may also offer other subjects than the above—such as the English language and literature—and a very considerable proportion of the candidates do so.

The standard required at this examination is a very high one, a proof of which consists in the fact that a successful candidate is at once qualified for some of the most important branches of the Civil Service. So high, indeed, is the standard required that no boy can pass with less than nine years' study devoted to this purpose after leaving the primary schools, and by far the majority require ten.

Once matriculated, the student in a German University has no further examination to pass until he goes up for his degree. There is no fixed time within which he must take his degree, and no fixed course of lectures for that purpose. As long as he attends one single course of lectures a term for three years he is satisfying the only requirement of the University.

For his degree he is required to produce (in Natural Science) an original research with evidence that it is his own, and to pass an oral examination in the science to which his research belongs, and in some cognate science. Thus, for instance, if his research be Chemistry, he would be examined in Chemistry and Physics, or in Chemistry and Mineralogy.

The research must be printed and the University requires him to produce two hundred copies which it distributes to all the principal libraries of Germany. Some of the Universities insist, moreover, that the research shall have been published in one of the scientific periodicals or in the journal of some scientific society.

Of course the difficulty of obtaining a degree diminishes the number of graduating students far below the proportion who obtain degrees in an English University. But there are, in spite of this, enough to produce a very respectable amount of scientific research.

This system, accounts, to a large extent, for the number of researches published annually in Germany. The very fact of publication constitutes a very important inducement to continued efforts. The facts contained in the research are disputed, or the inferences are held by them to be based on insufficient evidence. At once, further investigation is necessary: the research must be cleared from suspicion in the eyes of his fellow worker in the subject; and, moreover, there is a peculiar and special feeling of proud proprietorship in the subject of a scientific man's first research which leads him to further effort. An additional charm in publication is the knowledge that the important German periodicals, and journals are read by scientific men over the whole world.

Another very important cause of German excellence lies in the very high social position which is secured by successful research. So strong an inducement does this constitute, that men of world-wide reputation were formerly content to work for their whole lives at a remuneration which an English bank clerk would scorn, though this is, fortunately, no longer necessary.

A successful series of researches constitute by far the best testimonials in seeking any University appointment in Germany.

The causes of the superiority of Germany in science are, in brief:—

1. The better primary education in the schools, and the elimination of such primary education from the University Curriculum.
2. The fact that an original research is a *sine qua non* for the attainment of a degree, and, in addition, the great inducement to continued effort which the publication of such a research creates.
3. The high social position secured by successful research.

W. H. P.

## OBSERVATIONS BY THE PATRIARCH STUDENT.

PROFESSOR Ramsay Wright has resigned the Secretaryship of the School of Science and Mr. Baker has been chosen in his stead. Dr. Wilson, who has been appointed a Professor in this institution, will deliver a course of lectures on Ethnology during the present year, in his new room which has been aptly christened Golgotha. He presided at a meeting of the Board on Tuesday.

THE accusation of childishness levelled at American Undergraduates by the *Saturday Review* is admirably lodged in the case of Yale. Men of the Fourth Year at that University deem it beneath their dignity to associate with members of the Third; and similar relations of harmony exist between the Third and Second, and between the Second and the Freshman Year. A tone of exclusiveness is a commendable preservative against vulgarity, but, when carried beyond ordinary limits, simply serves to remind people "of men whose chill icing is only to conceal dirty water, and they freeze to hide what lies below."

THE Library of the School of Science is to be turned into a lecture room for Professor Galbraith. In consequence, the magazines and historical collections of the Science Association will have to be moved to Utopia. For the Third Year men there are one hundred and eighty frogs in the basement awaiting dissection, and a huge turtle has been purchased to illustrate the anatomy of the Chelonia. The white mice, recently brought from Germany, have proved that the propagation of this species in Canada is not an impossibility. The incubator now stands ready to be lighted, so the Fourth Year can begin their study of the embryology of the chick at once.

By a mistake in our last number the three interesting specimens of the preserved human brain in the ethnological collection of the University museum were stated to be the work of Mr. Pride, the assistant curator. Though Mr. Pride has prepared some similar specimens, those I alluded to are a gift to the President from Professor Osler, of the University of McGill. He exhibited similarly prepared specimens, executed by himself, at the meeting of the American Scientific Association, at Saratoga, N. Y., in 1879; and subsequently prepared and presented to the Toronto collection, those now referred to. By an ingenious process of hardening, and preserving, with sulphate of zinc and glycerine, the brain is permanently preserved for study and dissection, and for the exhibition of all the convolutions and minutest internal structure.

LORD LORNE, in his speech at St. Thomas, has implicitly given an inkling of his opinion concerning the comparative worth of the study of Classics:—"Keep up a knowledge of your ancient language; for the exercise given to a man's mind in the power given by the ability to express his thoughts in two languages is no mean advantage. I would gladly have given much of the time devoted in boyhood to acquiring Greek to the acquisition of Gaelic." Some recent arrivals there are in the University environs who would probably join issue with this particular expression of His Excellency's views. A declaration of attachment to the Celtic language and customs will always ensure the good will of Scotch settlements, though, in Scotland itself, the preference of a comparatively-meagre vocabulary to the richness and musical power of Greek would be deemed more eccentric than patriotic.

I HAVE asked cousins, aunts, &c., as well as friends and acquaintances, where a satisfactorily-cooked dinner may be had in this overgrown town. A look of despair unmixed with any indication of hope, is invariably the mute answer. No more repulsive record of tasteless kickshaws can be imagined than the hotel bill of fare long as a giraffe's neck, whilst the menus at the restaurants are no less pretentious as to quantity, and equally disappointing as to quality. The advent of a skilful *restaurateur* would be welcome, if only from the moral consideration that, incidentally, he would contribute to sobriety far more effectually than the denunciatory language of temperance orators. The ostentatious contempt displayed by ethereal mortals towards the gastronome need not obscure the fact that, the yearning for a well-served table, when unsatisfied, often seeks compensation in stimulative beverages. For the frequenter of bar-rooms and grog-shops the Queen City is a paradise; higher up in the list of more civilized tastes, life is somewhat dreary, by reason of having little else than the expectation of better things.

I HAVE long ceased to be a University student, and my dignity was considerably ruffled this week by a message, from the *'Varsity* headquarters, which a perky freshman brought to my office. It was no less than a request to skim the town and country papers for creamy notices of this newly-born sheet. To be saddled at my advanced age with so mechanical a task appeared to me to show want of consideration, to say the least of it. However, the sentiment of *esprit de corps* and the intellectual treat of poring over the columns of the *Kingston Whig* and the *Alaska Times* helped me to smother injured feelings:—

"The *'Varsity* is the title of a neat little publication issued by the students of Toronto University. It is not the equal of *Queen's College Journal*."—*Kingston Whig*.

Pray, not so fast! The *Journal* in question is as many years old as we are days, in fact a limestone fossil.

"Toronto University also issues a neat little sheet named *The 'Varsity*."—*Kingston News*.