

## THE GERMAN UNIVERSITIES AT THE WORLD'S FAIR.

HOW much has been said and sung of the academic liberty of German universities! Academic liberty means freedom of research. It implies the independence both of professors and students. The professor is not controlled in his work; he is not commanded what to do or to teach; he is thoroughly independent and, he cannot be removed from his place. He investigates as he pleases and he lectures to his auditors as he sees fit. Nor does the professor in turn exercise any control over his students. They study if they choose to do so, and, if they prefer it, they may neglect their studies. And the students do not hesitate to make use of their liberty. Many talented youths who do not possess sufficient self-discipline go to the wall, under this system. This is a pity, but so long as the principle of academic liberty prevails, it cannot be helped, and, for that reason, no one in Germany proposes a change in the principles according to which the universities are administered.

Academic liberty has left an indelible imprint upon the German university; it has shaped its life, institutions, and by-laws; yet the most important result it has produced is what may be called "the scientific spirit of the German university. While the French and English universities are advanced schools, whose business it is to educate or to teach, the German university is above all other things a temple of science. The appointment and advancement of a German professor does not depend upon his ability to teach but almost exclusively upon his accomplishments as an investigator. Had Darwin lived in Germany he would most likely have been found among

the university professors, for Germany's greatest thinkers, with few exceptions, have lived and completed their lives in academic circles. The German professor is first an investigator and then a teacher. German universities are institutions devoted to the search for truth, and the scientist, the philosopher, the searchers for truth serve at the same time as instructors of the German youth.

The German university consolidates scientific research in a great coöperative body of scholars. Thus it is adapted to give specialised instruction in all the various branches of science and yet it keeps every student in close communion with all other studies, so that the unity of knowledge is not lost from sight. In this way a scientific atmosphere is created which makes the labors of every one that breathes it more efficient. An isolated thinker, even if he had all the books and instruments of his specialty and of collateral sciences as convenient as he finds them at the university, cannot accomplish as much as the man who receives, almost without his being conscious of it, innumerable suggestions and helps from his colleagues in other branches, and is, as it were, carried on the wings of their common aspirations.

The German university system has often been criticised, but criticism has only given it strength and shown its great advantages. The question has been raised, Would not teachers be better as educators than savants? Many professors are incompetent as instructors and even as lecturers! Nevertheless, the direct contact of the students with the great representatives of scientific inquiry outweighs all disadvantages. The German youth receives the most powerful stimuli and invaluable suggestions from his personal intercourse with the thinkers of his time.

All the members of the German universities jealously guard their academic liberty and look upon it as one of the most sacred heirlooms of the German nation. And rightly so, for it creates boldness of research, it promotes progress, and has in times of need proved the last redoubt even of political freedom.

Academic liberty makes the German university of kin to the constitution of our country. No wonder that between the German university and the United States a deep sympathy obtains. We

Americans at least have, on our part, always regarded the German university system as the best realisation of the noblest ideal of all higher education. We have not tried slavishly to copy it, but we imitate it, and attempt to adapt its methods to our special wants. There are no doubt features that cannot be recommended, but certainly the spirit that animates the German university must and will find and to some extent has already found a home on this side of the Atlantic, in the country of political liberty and humanitarian aspirations.

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Considering the importance of the German universities to our country, we joyfully greet their well-planned and excellently arranged exhibit at the World's Fair in Chicago, and here offer to our readers a brief review of this unique display of the ways, the means, and the summarised results of German science.

Where that grand bronze statue\* of Germania on horseback, accompanied on her right hand by Strength, on her left by Renown, towers above the German exhibit in the Liberal Arts and Manufactures Building, a double stair-case leads the visitor directly to the heart of the place allotted to the German universities. Here we stand upon their court of honor. We find no exhibit in the proper sense of the word. There are, however, some portraits and statues chastely ornamented with a few gilt acorn, myrtle, and laurel wreaths. Alexander von Humboldt's portrait in large proportions stands prominently before us. Very attractive are the oil pictures of Von Ranke, the historian, Wilhelm Weber, Kekulé, and A. v. Hofmann, the chemist. There is a bronze statue of Kant in full figure and a number of busts, among which we note in the centre the young Emperor; around him and along the aisle, Helmholtz, Kirchhoff, Luther, Schleiermacher, Leibnitz, Liebig, Gauss, and others.

A glass case contains autographs of the very greatest Germans. There are two documents, the one signed by a flourish of Charlemagne, the other sealed by Otto the Great with his own hand; letters of Luther, Frederick the Great, William the First, Goethe,

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\* The statue is destined to adorn the Reichstag building in Berlin.

Schiller, Kant, Lessing, Grimm, Schleiermacher, and Winckelmann.\* Plans, elevations, and photographs of the various university buildings in big folios bound in leather are exhibited on desks. Near by are the libraries, showing their methods of shelving and cataloguing books;† to the left we have the physical and mathematical, to the right the bacteriological and physiological sections.

There are several monumental works of German patience and industry, such as Grimm's "Wörterbuch" and the various "Corpora Inscriptionum." We find among them Wenker's "Sprachatlas," a new enterprise which shows in a simple and systematic manner the linguistic boundaries of Europe. Three hundred characteristic words have been selected and their pronunciation in the various villages carefully noted down by the schoolmasters, according to the directions of a circular letter. The result is easily surveyed in the maps. The work is as yet incomplete, and it is estimated that it will comprise about nine hundred folio charts.

The mathematical section surprises us with its wealth of mathematical models. French mathematicians in the Fifties, still under the influence of Monge, were the first to understand the great value of embodying in visible form their abstract space-constructions. Not he who computes with arithmetical methods but he who has an intuitive conception of spatial relations is the true mathematician, and how can the latter quality be better developed than by models that show at a glance all the complexities which it is sometimes so difficult to realise by abstract imagination. German mathematicians have learned from the French, and it appears that they now excel their masters. It is astonishing how much has been accomplished in this branch of education in the last twenty years.

There are several cases of Brill's models, many of which owe their origin to the exercises which were held at Munich by Pro-

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\* It is not our purpose to enter into details, but we may mention incidentally that some of the letters admirably characterise the men and the nation to which they belong, in their noblest sentiments; especially the letter of Frederick the Great; while others, for instance Kant's letter, thanking a friend for a gift of Teltauer turnips, are of a trivial nature.

† For the details of German Library institutions consult Dr. Dziatzko's *Denkschrift*, and P. Schwenke's *Addressbuch*, both on exhibit.

fessors Brill and Klein in 1877-1885, showing surfaces of the second, third, and fourth degrees, "Kummer"-surfaces, cyclides, surfaces of constant curvature, geodetic lines, asymptotic curves to surfaces, and other mathematical forms. The thread models (made by Wiener of Karlsruhe and Karl Rohn of Dresden) present a beautiful appearance and are especially calculated to excite the curiosity of the uninitiated. Professor Schwarz of Berlin shows us a few Riemann-surfaces in bodily realisation. Dr. Sievert (teacher at the Gymnasium at Nürnberg) materialises surfaces of positive curvature. The wire models of Dr. Victor Schlegel (of the Gymnasium at Hagen) represent projections of four-dimensional bodies in three-dimensional space. There are also crystal models and graphical diagrams of various descriptions.

The practical importance of a vivid mathematical imagination, to educate which these models are excellently adapted, lies mainly in the fields of mechanics and physics.

The energies of the mathematician, formerly so much occupied by computations, are now more employed in the properly mathematical fields, while comptometers will alleviate his work by calculating his examples with less trouble and with unfailing mechanical accuracy.

We find the Meyer addition machine, and a number of comptometers, among them Grimme's, the Russo-German *Brunswiga*, and a very interesting instrument called the *Selling Rechenmaschine*. The latter is built on the principle of the lazy tongs, or, as the Germans call it, the "Nürnberg shears." It is known that if the axis in the first link be moved one unit, the second will move two, the third three, the fourth four, and so on. The Selling machine contains ten seven-linked lazy tongs with wheels for the decimal transfer and can execute in a purely mechanical way multiplications and divisions of any number of nine figures with any number of seven figures. The result appears typewritten on paper up to thirteen places, which for common use will be sufficient. A few numbers of frequent occurrence, such as  $\pi$ , can be called up by pressing a certain button.

The machine will have a great fascination for Americans. Its principle is simple enough, but its application is still very complex, so that its practicability must remain doubtful. At least, it seems

to us, that such American machines as the Felt comptometer are better for practical purposes.\*

The physical section contains many historical curiosities, such as Guericke's air-pump and the Magdeburg hemispheres, part of the wire of the very first telegraph, invented by Gauss and for practical purposes improved by Morse, and, in addition, many original instruments of Weber, Gauss, Kirchhoff, and Helmholtz.

At the time when Gauss made his telegraphic experiments he wrote under his picture these English words :

" Thou, Nature, art my goddess !  
To thy laws my services are bound."

The psychological department contains instruments invented and used by Helmholtz, C. Stumpf (Munich), W. Wundt (Leipsic), Goldscheider (Berlin), Ewald Hering (Prague), and Ebbinghaus (Berlin).

At the other end of the University exhibition we find the anatomical section. There are microtomes of different make, and several good preparations. The anatomical models are good, but do not reach the neatness and accuracy of detail which we admire in Dr. Auzoux's "clastic anatomy" at Paris.

Professor Flechsig's hand-made diagram of the nervous paths in the nervous system deserves particular attention, embodying, as it does, the very latest results, most of which were made by Flechsig himself. It is to be hoped that this chart, with its manuscript explanations covering no more than twenty or thirty manuscript pages, will soon be published, so that it may be accessible to all interested in the anatomy of the brain.

One staircase higher leads us to the Botany exhibit, which appears in the shape of large-sized flower models ; to the Zoölogy exhibit, showing hand-made wall pictures of apes, while Dermatology wisely covers the most important part of its demonstrations.

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\* The Brunswiga works by a crank ; it adds and subtracts, multiplies and divides. In the Felt comptometer the keys perform the work automatically ; in addition, this machine finds the square and cube roots of numbers. It seems to be much used in business. Cornell University, I am informed, employs three Felt comptometers in its various departments, while a fourth one serves for purely educational purposes.

We must resist the temptation to describe at length the exhibits of other sciences, such as astronomy, with its various branches, chemistry, mineralogy, hygiene, surgery, ophthalmology, and others, and will merely state that the bacteriological department exercises a great attraction for physicians and laymen. There are the vials, tubes, and hatching-stoves of Koch and his colleagues ; there are the nests and colonies of the various pure cultures in bodily presence ; there are the photographs of these criminals a thousand times magnified ; and the white powder exhibited in tubes and displayed in one of the cases contains the very poisons with which they bring about their nefarious results. A small case in the corner of the room shows us the antidotes, which, according to experiments made on animals, will neutralise the effects of the tetanus and some other bacilli.

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In addition to these exhibits, the German universities have given to the world a two-volume digest of large octavo size which in a few more than a thousand pages briefly reviews the work accomplished in the various branches of science. "These accounts," so we read in the preface, "are not intended to recapitulate the progress of science generally, but only to indicate how far the German universities have contributed to it. That, accordingly, the merits and accomplishments of foreign science were excluded from detailed recognition and appreciation must of course not be interpreted as the result of a desire to make the work of the German universities unduly prominent. On the contrary, the German universities will remain fully conscious of how much they owe in their scientific aspirations to the labors of other nations."

The editor of the work is Prof. W. Lexis, the prominent Economist of Göttingen. The first volume begins with an essay on the German university by F. Paulsen of Berlin ; it is a fascinating description of its history and present conditions (pp. 1-111) supplemented with statistical tables by J. Conrad, of Halle (pp. 111-168). The special sciences are arranged according to the faculties and are reviewed as follows :

Theology is divided into two parts. The Evangelical faith is

represented by E. Haupt, E. Kautzsch, F. Loofs, M. Kähler, and H. Hering, while the Catholic doctrine is treated by G. Hoberg, J. Felten, B. Fechtrup, P. Schanz, F. X. Heiner, and H. Keller.

Professor Haupt says (p. 180) :

"The theological faculties, though in point of form completely free, are yet a real coadjutor of the practical work of the Evangelical Church. If conflicts arise—and in our day they frequently do arise—between their work and that of practical ecclesiastical circles ; if it is complained that intellectual critique now almost exclusively occupies the time of students and that the young people are unfitted for service to the congregations of the church : the academical theologians will certainly not deny that many imperfections still adhere to their work. But they are convinced that any one-sidedness that is thus produced will be overcome by the further scientific and religious education of the students and especially by their work in pastoral fields. In fine, we must have patience, and must look for reconciliation between faith and science, in the individual as well as in the whole church, from a steady coöperation of these two factors, and see that such a reconciliation can only be slowly and gradually effected. Theological science is an integral part of the totality of science, an integral aspect of church-life generally, and finally, a means of creating in the holders of practical church-offices independence of judgment and sureness of action."

The position of Roman Catholic theology is greatly simplified. Professor Hoberg regards Franz Kaulen's treatment of exegesis as epoch-making. "Kaulen," he says, "defines biblical isagogics as a justification of the ecclesiastical doctrine anent inspiration and the canonical character of the Scriptures, therefore, subsuming it under apologetics." "Thus," he adds, "it acquires a strictly scientific character, so that this form of treatment will forever serve the Catholic Isagogist as a model."

The problem which perplexes Evangelical theology does not exist to Hoberg. As if intending a reply to the above-quoted passage of his evangelical colleague, he says (p. 240) :

"If the works of Catholic exegetists in the Old Testament field fall short in number of those of non-Catholic scholars, this fact is chiefly due to the circumstance that biblical research in the Catholic sense rejects as a matter of principle many theories of non-Catholic research, and, consequently, has no reason to treat these theories scientifically."

It is encouraging to see that Professor Haupt does not despair of a final satisfactory solution of the theological problem.

Prof. O. Fischer, of Breslau, has written as an introduction to the section of jurisprudence an essay on the general study of law. Ernst Eck, of Berlin, treats of Roman law, which, we ought to add, is unduly neglected in England as well as in America. The other juridical branches are represented by H. Brunner, of Berlin; E. Strohal, of Göttingen; K. Kossack, of Freiburg i. B.; O. Fischer, of Breslau; F. E. von Liszt, of Halle; G. Meyer, of Heidelberg; F. von Martitz, of Tübingen; L. von Bar, of Göttingen; R. Sohm, of Leipsic; J. Kohler, of Berlin; and A. Merkel, of Strassburg. The statistical appendix is by Guttstadt, of Berlin.

The philosophical faculty, which in almost all German universities comprises everything that does not belong to the three others, is divided into two groups, the *humaniora*, and mathematics and the natural sciences. J. Baumann of Göttingen offers an admirably condensed synopsis of the evolution of German philosophy since Leibnitz. Wundt describes the psychophysical institutes and their work. Philology, including history and archæology, is represented by N. v. Wilamowitz-Möllendorff (Classics), K. Weinhold (German), A. Brandl (English), A. Tobler (Romance), E. Sachau (Oriental), F. Kielhorn (Sanskrit), K. Brugmann (Comparative), H. Zimmer (Celtic). Modern History is treated by Th. Lindner, History of Art by Hermann Grimm, and Political Science by H. Dietzel (economy and finance), E. Gothein (the evolution of the science of economy), and W. Lexis (statistics).

Mathematics and Natural Science constitute a faculty of their own only in Tübingen, Strassburg, and Heidelberg. Professor Lexis, the editor of the present work, found it convenient to treat them in a special section which appears as the first part of the second volume.

Prof. F. Klein sketches the tendencies of mathematical investigation during the last two centuries. Gauss inherited all the traditions of Leibnitz, Bernoulli, Euler, Lambert, Lagrange, D'Alembert, and Maupertuis. Unsurpassed in exactness of proof, he introduced new views and new methods and he again imparted his spirit to a number of disciples whose mission it is to develop in harmonious coöperation the various branches of mathematics. In addition to him we find such men as Jacobi, Clebsch, and Dirichlet. Jacobi's

maturest work is his theory of elliptical functions ; Clebsch received the most fruitful suggestions for his algebraic conceptions from the English mathematicians Cayley and Sylvester. Of Dirichlet, whose labors were closely allied with French thought, may be mentioned his theory of numbers and his mathematical physics. Grassmann stood outside the academical circles, which was the cause of his tardy recognition. Steiner, a more isolated thinker, was powerful through his original one-sidedness. Riemann proceeds from Gauss and Dirichlet, whose conceptions he combined with Cauchy's ideas of the application of complex variables ; Clebsch forms a contrast ; he is complementary, as it were, to Riemann ; and his tireless energy was not satisfied with his academic work. He founded with C. Neumann the *Mathematische Annalen*, a magazine which still exists and has now reached its forty-second volume.

In addition to the Göttingen School we have the Berlin School represented by Kummer, Kronecker, Weierstrass, and also the Polytechnica which are the main home of those mathematicians who, according to the French ideal, apply mathematics to technical industry. Representative of this latter class are Redtenbacher of Carlsruhe and Culmann of Zürich.

We pass over the accounts of (II) Astronomy by H. Seeliger, (III) Physics by A. Kundt, (IV) Chemistry and Chemical Technology by O. Wallach, (V) Physical Chemistry by W. Ostwald, (VI) Mineralogy and Crystallography by Liebis, (VII) Geology and Palæontology by K. v. Zittel, (VIII) Botany by E. Strasburger, (IX) Zoölogy and Comparative Anatomy by R. Hertwig, (X) Anthropology by J. Ranke and Ethnology by E. Grosse, (XI) Geography by H. Wagner, (XII) Meteorology by W. v. Bezold, (XIII) Farming by J. Kühn, (XIV) and Forestry by Professor Lehr,—all of which contain much interesting detail. We quote one passage in full because we trust that the subject commands a general interest. Professor Hertwig concludes his article as follows (pp. 109-111) :

"We should acquire a very imperfect notion of the course of development which zoölogy has taken in this century in German universities, if we were not to take into account the tremendous influence which the Darwinian theory has exercised. In no country did this theory find such quick acceptance, in no country has

it so completely dominated scientific life, as in Germany. It may be said that to-day all teachers of zoölogy and comparative anatomy are more or less pronounced adherents of the idea of evolution. Among the men to whom this rapid introduction of Darwinism in Germany is to be attributed, is to be mentioned, above all, Ernst Haeckel, who in many treatises and especially in his *General Morphology*, which has deepened the spiritual contents of zoölogy in many directions, has done more for the methodical development of the theory than any other inquirer. Next to Haeckel, O. Schmidt, Weismann, and M. Wagner (of München) have taken a prominent part in the controversies of this question.

"If we go more minutely into the manner in which Darwin has acted on German zoölogy, two elements of Darwinism must be sharply distinguished: (1) the theory of descent, which it has in common with earlier theories of evolution; and (2) the causal establishment of descent by means of the struggle for existence, by which it is distinguished from the other theories. The doctrine of the struggle for life has met with quite unequal assent in Germany. One energetic champion of the theory has arisen in Weismann, who explains the transformation of species wholly by this method, rejecting other causes, such as the influence of environment and the use and non-use of organs which Lamarck emphasises, for the reason that acquired characters are not hereditary. On the other hand, there have been no lack of voices which have disclaimed for the struggle for existence all influence whatever in the development of species. M. Wagner especially has opposed the Darwinian theory, enunciating and defending with great acuteness the doctrine of migration, by which new species can have arisen only through geographical isolation.

"It may be said generally, that the disputes indicated have not been pursued with the same ardor by German zoölogists as they have, for instance, in England. For German zoölogy, Darwinism in its narrower sense stood less in the foreground than the theory of evolution which received new life through him. Besides, evolution has assumed a distinct stamp in Germany, and one which is deeply grounded in the character of German zoölogy.

"The train of thought which led Darwin to the enunciation of his theory was preëminently the train of thought of the systematician, who sought to acquire a clear conception of the value of the notions species and variety. In Germany, however, it is the morphological side of the theory of descent that is especially cultivated. It is here sought, by comparative anatomical and developmental studies, to establish the natural relationship of living animals, in order to clear up in this way and to demonstrate the historical development of the animal kingdom—its "phylogeny" as Haeckel calls it. The endeavour is made to derive the more complicated organs of higher animals from the simpler states of embryos and lower organisms, with a view of obtaining an insight into the laws of formation of organs and of revealing the connexion between the facts of anatomy and developmental history—a connexion for which Haeckel gave the explanatory formula in his biogenetic law. By these tendencies comparative anatomical and developmental research necessarily received

fresh impulses, and the zoölogy of Germany thus affords us the interesting spectacle of the successful coöperation of two great intellectual movements. The development of the theory of descent in German universities was prefigured by the morphological tendency of German research, and in its turn this theory also exercised a determinative and fruitful influence on morphology. Morphology and the theory of descent are thus the two factors that now dominate the zoölogical research of the German universities and that probably will dominate it for some time to come."

The report of the medical faculty opens with a careful survey of the present state of anatomy (pp. 187-233) by W. Waldeyer of Berlin. Physiology is sketched by L. Hermann, the editor of the six-volume *Handbuch*. The constantly increasing import of pathological anatomy is forcibly set forth by R. Virchow (pp. 241-261) who believes that pathological chemistry will in the future become more and more indispensable. The revolution that took place in the treatment of internal diseases through and since Virchow is reported by H. v. Ziemssen. The progress made in surgery is reviewed by J. Mikulicz. Since Lister's innovation, surgical operators became bolder than ever; German surgeons have slowly changed the antiseptic method into a purely aseptic one. Names such as Bruns, Billroth, Volkmann, Langenbeck, Bergmann, and others are famous, and their successful operations have astonished the world. Gynæcology is summarised by H. Fritsch, the Treatment of Children's Diseases by A. Baginsky, Ophthalmology by A. v. Hippel, Psychiatry by Ludwig Meyer, Dermatology by A. Neisser, Diseases of the Throat and Nose by B. Fränkel, Otology by H. Walb, Dentistry by F. Busch, Pharmacology by C. Binz, Hygiene, which since Pettenkofer has become an independent and indeed an important branch of medicine, by C. Flügge, and Forensic Medicine by Skrzeczka.

It would be unfair to expect the report of the German universities to be complete; it is at best a fairly approximate summary which is to some extent influenced by the preferences of the various contributors. It is but natural that Göttingen and Berlin are noticeably prominent, Berlin as the capital of Modern Germany and Göttingen as the university at which Anglo-American traditions are still prevalent. To criticise omissions, where, according to the

reviewer's taste, more should have been said, would be unfair. Some subjects have been neglected, modern logic, for instance, has been entirely dropped. But we must bear in mind, first, that it would be all but impossible to satisfy all *desiderata*, secondly, that the whole work had to be completed in three months, and, thirdly, that it is a courteous gift which does honor not only to the giver, that magnificent body of German savants who constitute the German universities, but also to the American nation whose respect and good opinion our brethern beyond the Atlantic solicit in such a kind and amiable way.

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America is often ridiculed as the land of the almighty dollar. Germans especially are disposed to believe that our people are materialistic and devoid of all ideals. This is a misconception. America is perhaps the most idealistic country in the world. Americans, it is true, are practical, and mean to be that, but they are not materialistic. We can unhesitatingly say, that should a million dollars, or several millions, be wanted in any one of our great cities, New York or Chicago or San Francisco, for some enterprise of urgent communal interest, be it a hospital, a school, a life-saving station, or what not, the money would be pledged within a day, if but the men who undertook the work were a guarantee that the plans would be properly executed and the institution serve its purpose. If we measure the idealism of a country in foot-pounds of energy that people expend in its service, if we measure it by the sacrifices voluntarily made for ideals, there can be no doubt that America ranks first among all the nations of the world.

The World's Fair at Chicago is indeed characteristic of the spirit that animates American character. There has never before been an exhibition in which the purely commercial interests were so much overshadowed by the higher and nobler purposes of national education. The managers of the World's Fair have made everything subservient to the one thing needed, that is to raise the civilisation of the people and to improve their minds by instructing and by entertaining them. The World's Fair imparts information, it educates, and it teaches a great object-lesson. The administration is

certainly not without faults, yet upon the whole it has been conducted, according to the intention of the shareholders, so as to ensure an ideal rather than a financial success. Gain or loss was regarded as a matter of subordinate consideration.

The exhibit of the German universities accords most harmoniously with the general plan of the World's Fair at Chicago. It is very welcome and we are grateful to the men to whose labors we owe the instructive and successful execution of such a valuable work.

We do not wish to glorify our country in any vain spirit, for we are by no means blind to its many imperfections. We know that there are many drawbacks to our political and social conditions, but we are at the same time confident of national improvement. The spirit of a practical idealism will conquer in the end, and those elements which expect to prosper by corruption will perish.

We believe in liberty; we enjoy its benefits and accept the consequences of an ill-employed liberty, also. Our people have themselves to blame if they suffer from the vices and errors of their magistrates and legislators. They must learn by experience. Many of our political institutions, especially our civil service, need reform. As they are at present, we observe that rectitude and a faithful attention to duty are not always rewarded, while dishonesty is often actually at a premium.

Considering the vicious system of our civil service, we must be lenient in judging the corruption that prevails in many of its branches. We should rather say it is, after all, marvellous that conditions are not worse. It is comparatively easy for the employees of the German Government to be and to remain honest, for so long as they attend to their duty, they are safe in their positions, and no emperor or governor or superintendent can remove them. A change of policy in the government only implies a change of the chiefs of the various departments. Would European officers maintain their well-deserved reputation for honesty and efficiency, if they were suddenly transplanted into such conditions as prevail under our faulty system?

The evils that appear in our national and social life are bad enough; they lie on the surface and obtrude at once on every one

who visits our country. But they are not irredeemable ; they are set off by great and solid virtues. He only who feels in his own heart the pulse of the most sacred aspirations and hopes of this nation, can appreciate the grandeur of its rare possibilities.

Moreover, the evils that accrue from a wrongly applied liberty are educational ; they will impel us to advance on the road of progress. They will force us to raise the general standard of civilisation. They impose a great duty upon us, which, we grant, is very difficult to perform ; but the performance of this duty will create a nobler and higher type of humanity. Those who have no faith in ideals and the power of ideals, who have no confidence in progress and the higher possibilities of mankind, naturally regard the task as impracticable. While we are fully aware of all the difficulties, we yet do not despair of the situation. There is a divinity in the world that aspires to incarnation ; and this divinity is still alive in mankind. Through errors and true knowledge, through adversities and prosperity, through misery and happiness, through good and evil times, through despair and hope, through sin and saintliness, folly and wisdom, the God in man struggles onward. The mass of mankind may be ever so wretched, the ideal will sprout and develop like a mustard-seed, and its growth will astonish the faint-hearted.

We shall have to pass through many sad experiences, but it is certain that in the bracing air of freedom the fittest will survive, and fitness is inseparably bound up with morality.

Freedom, be it academical or political, is not favorable to the weak ; it proves destructive to those who lack independence or self-control ; the unfit must fail. Yet the results are not to be deplored.

Recognising the kinship between the German university system and the institutions of our own country, we say, the greatness and the glory of German science are due above all to its academic liberty, and the promising future of our national hope depends mainly upon the right use we shall make of our ideal of freedom.

EDITOR.