

Professor Krueger in regard to the Psychological Corporation, which we were establishing to advance the applications of psychology and to place research on an economic basis, he objected emphatically to such uses of psychology.

It should, however, be realized that we are not in a position to cast the first stone at our German colleagues. Communists are as anathema here as there. Jews are not treated on terms of equality, either as teachers or as students, in our eastern universities. The president of the largest of them is said to have given the instruction: "Do not exclude any student because he is a Jew, but do not admit any Jew if it can be helped." Twenty years ago I was compelled to resign from the Century Club because I had objected to the exclusion of Jacques Loeb, one of the world's most distinguished biologists. Professor Edwin R. A. Seligman, the prominent economist, had also been blackballed, and there were in addition to Loeb three other members of the National Academy of Sciences ineligible to membership through race. Yet the Century Club has now brought action in the courts to obtain exemption from taxation on the ground that it is not a social club but an institution devoted to literature, art and science.²

We have in America a great race, brought here by force and forming 10 per cent. of the population, to which we do not give political, legal, social or economic equality. We are in no position to play the part of Pharisees, but we can try to better the situation by giving opportunity to those of exceptional ability who are unable to continue their work elsewhere. In 1910 (*SCIENCE*, November 4) I wrote:

There were 126 foreign-born men of science on the list of 1903. While the majority came to this country

before attaining scientific reputation, a large number were called from Canada, Great Britain, Germany and other countries to fill positions in our universities, of whom seven were among our leading hundred men of science. The members of this group have added greatly to the scientific strength of the country, not only by the research that they have accomplished, but also because they have brought familiarity with the educational methods of other nations, and high ideals of scholarship and of the dignity of the career of the scientific man and university professor. It is surprising and truly most unfortunate that while nine leading foreign men of science have returned to their native countries during the past seven years, only one has come to America—one scientific man among seven million immigrants. There is no way by which the abundant wealth of the country could be used to greater advantage than by bringing to it men of promise and men of distinction.

Psychologically we seem not to have abundant wealth just now; but materially we are far richer than we were in 1910. The market value of stocks and bonds has increased by billions of dollars in the course of the past couple of weeks. Why not take by taxation one of these billions and endow in perpetuity 5,000 of the ablest scientific men of the world with \$200,000 each? It would be the most profitable investment ever made.

We have fallen from the high estate when our country offered a refuge to the oppressed of all nations. We have not, however, completely forgotten what we owe to Puritans and Quakers, to refugees from Germany as recently as eighty years ago. Can we not now provide for those of exceptional ability who, owing to race or political views, are unable to do at home work of value to the whole world?

J. McKEEN CATTELL

QUOTATIONS

THE SITUATION OF JEWISH SCIENTIFIC MEN AND PHYSICIANS IN GERMANY

THE political significance of Nazi revolutionary supremacy under Herr Hitler in Germany is outside our field; but the treatment of the Jewish learned and professional classes stands condemned in the eyes of the intellectual world. It is a relapse to the crass repression of the Germany of Heine's day and the *Judenhetze* of Prussia fifty years ago. An outstanding case is the resignation by Professor James Franck, Nobel prizeman with G. Hertz for physics in 1925, of his chair in experimental physics in the Uni-

² This note may go too far in the direction of autobiography, but illustrations can best be drawn from personal experiences, which have not been lacking. When I have been asked by publishing houses to write an autobiography, I have replied that it would give them too many libel suits.

versity of Göttingen. Professor Franck, it is said, probably would have been spared the forced retirement now operative against Jewish officials, including university professors; but he feels that Germans of Jewish descent are being treated as foreigners and foes of the Fatherland, and asks to be released from his office. Professor Franck served with distinction during the war and received the Iron Cross of the First Class. His action follows fittingly on the retirement of Professor A. Einstein from Germany, and is the logical, indeed the only, reply for a man of his standing to the acts by which Jews are being excluded from the liberal professions and debarred from the universities. This is the achievement of a movement which, ever since the war, has sought to mould the German people to one pan-Teutonic pattern—in ac-

cord with neither the facts nor the conclusions of ethnology. In the denial of a part in Germanic culture to any element alleged to be foreign, Jews, liberals and socialists are to be treated alike; but Jews have suffered most.

The Jewish people need no one to hold a brief on their behalf. The contribution of the Jews to the growth of civilization in the Western world speaks for itself. There were Jews in Germany in Roman times, and wherever they were found in medieval Europe, in spite of, or perhaps because of, their disabilities, they were laying the foundations upon which the modern system of finance and commerce was built up. In Italy as bankers, they rivaled the great houses of Lombardy. In the liberal arts, the preservation of much of classical literature and philosophy was due to them. In the later Middle Ages they were largely responsible for the reputation of Spain as a center of intellectual and scientific development. In the middle of the eighteenth century the revival of Jewish learning, which had Mendelssohn for its inspiration and leader, paved the way for the Jewish people to take its place in the intellectual life of the respective countries of their adoption as their disabilities were gradually removed, so that Bunsen could say that in the German universities of his day the greater number of the principal professors were Jews. Everywhere the Jews have won to preeminence in literature, in the arts, especially music, and the drama. Even if it were not admitted that the Jews had contributed to Germanic culture—a contention which could not be accepted without argument—in the world of learning and science it is to men such as Oppert, the classical scholar, Benfey, the Orientalist, and Heinrich Hertz, the physicist, to take three names only, selected almost at random, that she owes her international standing, just as much as to any of her sons of purest German stock.—*Nature*.

News items appearing in the issues of the *Münchener medizinische Wochenschrift* and the *Deutsche medizinische Wochenschrift* for the weeks of April 7 to April 21, inclusive, indicate the following actions in Germany against Jewish and other foreign physicians:

An ordinance of the Prussian Ministry of the Interior of March 29 states that foreigners, even those who received their preliminary education in Germany, can no longer count on receiving licenses to practise in Germany.

Control of the five largest associations in charge of sickness insurance has been placed under the federal ministry of labor.

Dr. Gerhard Wagner, Munich, first chairman of the National Socialist German Physicians' Organization, has been nominated Commissioner of the National

Physicians' Organizations, of the Association of German Physicians and of the German Alliance of Physicians' Societies.

The Supreme German Medical Societies (Die deutschen ärztlichen Spitzenverbände) gave out the following ordinance in accordance with their commissar, Dr. Gerhard Wagner (first chairman of the National Socialist Physicians' Union):

In execution of their resolution to adhere to the spirit and form of the medical societies of the new order, the directors of the Aerztevereinsbund and the Hartmannbund ask their members, with the advancement of German medicine in mind, to take pains immediately to dismiss from committees and boards of directors all Jewish members; all colleagues who can not conscientiously adhere to the new order must be replaced.

Through the directors of the sickness insurance societies it is to be impressed in turn on the directors of the sickness insurance companies and insurance organizations, officials and superintendents to replace immediately Jewish and Marxist confidential consultants.

DR. STAUDER.

I decree that the foregoing regulation be immediately enforced and notification thereof sent me.

DR. WAGNER.

Dr. Frank, surgeon and member of the board of health, director of the hospital at Fürth, was taken in protective arrest. He was replaced by the internist Professor Weigeldt. Dr. Sponheimer, superintendent surgeon, was granted leave of absence.

The Universities of Leipzig and Bavaria have decreed that no member of the Jewish race will be permitted to matriculate in medicine for the next ten semesters. Enrolment of students for the study of medicine at the University of Munich is to be cut down to 345, at Würzburg to 130, and at Erlangen to 98. Under the terms of these regulations, any one who had one parent or one grandparent of Jewish race is considered Jewish.

The annual session of the German Society for Internal Medicine was scheduled to meet this spring under the presidency of Professor Lichtwitz of Berlin. He resigned from his office and was replaced by Professor A. Schittenhelm, of Kiel. At the forty-fifth Congress of Internal Medicine in Wiesbaden, Dr. Schittenhelm, successor to Dr. Lichtwitz, stated that differentiation must be made between old settled German-Jewish families of high culture and recently arrived eastern Jewish elements, since it is only the latter who bring about a racial taint by intermarriage with Germans. "Men like Ehrlich, Neisser, Minowski and Wassermann," he said, "should be given great respect by German physicians and people of

their talent would in the future undoubtedly be able to succeed in Germany."

In Baden, all Jewish physicians have been dismissed from the public health service and from the sickness insurance organization. In the hospitals they are permitted to treat only Jewish patients and to perform postmortem examinations only on Jewish patients who have died. A similar regulation has been established in Munich.

In Munich, S. Obendorfer and O. Neubauer requested a leave of absence from the Schwabing Hospital. The following Jewish physicians of the main office of public health in Berlin were given leave of absence: Professor Seligmann, Drs. Borinski, Cohn, Wolff, Nussbaum and others. The Jewish physician-in-chief of the cripple welfare station VII in Char-

lottenburg, Dr. Böhm, was replaced by Dr. Kniekamp of the orthopedic clinic.

The business director of the Berlin ambulatory clinic, Max Edel, and Dr. Friedeberger were placed under protective arrest.

The editor of the *Deutsches Aerzteblatt*, San.-Rat. Vollman, was given a leave of absence by the chairman of the *Deutscher Aerztevereinsbund*. Dr. K. Walder, of Potsdam, takes his place.

The Committee on Therapeutics of the German National Society of Physicians has made public a list of pharmaceutical preparations manufactured by concerns under Jewish ownership or control with the request that physicians in general do not prescribe such preparations.—*Journal of the American Medical Association*.

THE NATIONAL ACADEMY OF SCIENCES

ABSTRACTS OF PAPERS PRESENTED AT THE WASHINGTON MEETING. II.

(Continued from page 460)

The Woods Hole Oceanographic Institution: HENRY B. BIGELOW. A report is presented to the academy on the history and present activities of the Woods Hole Oceanographic Institution, giving the events leading to the establishment of the institution; reasons for the choice of Woods Hole for the site for its headquarters; descriptions of the laboratory, of the scientific equipment and of the research ship *Atlantis*; the general organization, staff, facilities for visiting investigators, cooperation with other institutions and plans for publication; the reasons for adopting a directed and coordinated program of research; and a summary of investigations now in progress and of the cruises of *Atlantis*.

The bearing of genetics on the theory of evolution: THOMAS HUNT MORGAN.

Phenomena associated with cosmic rays: W. F. G. SWANN (by invitation). Certain of the investigations in progress at the Bartol Research Foundation in the field of cosmic rays have been summarized by the author and in particular the following were described: (1) Observations of cosmic ray atomic disintegration made simultaneously by ionization methods and by counter methods. (2) Experiments dealing with the detection of individual cosmic rays by direct measurement of the ionization which they produce. These experiments lead to the determination of the ionization per centimeter of path in different gases. (3) Certain possibilities as to the origin of cosmic ray energies, particularly in relation to the origin of electronic cosmic ray energies as a result of electric fields produced by electromagnetic induction in the stars. (4) Observations on electrostatic deflection of secondary cosmic rays.

Cosmic ray intensities in the stratosphere: I. S. BOWEN and R. A. MILLIKAN. By sending up recording electrosopes, barographs and thermometers with the aid of

sounding balloons in accordance with the technique which we first used in 1922, we have, during the past summer, made three successful flights, one of which reached an altitude at which the pressure had fallen to 16 millimeters of mercury—about 99% of the way to the top of the atmosphere—a second flight reached a height of 21 kilometers and the third the height of 16 kilometers. On two of these flights we obtained reliable records of the cosmic ray intensities as a function of altitude up to 18 kilometers, 92% of the way to the top by weight. At this altitude the cosmic ray intensities are approximately 100 times greater than at sea-level, and the intensity altitude curve is of such a shape as to indicate that the rays entering the atmosphere have not yet got into equilibrium with their secondaries. Three flights thus far made, two by ourselves and one by Regener, are in reasonably good agreement.

The penetrating power of cosmic rays as a function of altitude: R. A. MILLIKAN and H. V. NEHER. We have made accurate airplane observations with our new electrosopes, so designed as to give as accurate readings on moving platforms as in a laboratory, reaching altitudes above 29,000 feet. Up to this altitude we have taken readings both without lead shields and with a lead shield, and have thus obtained direct measurement of the penetrating power of the cosmic rays existing in different levels. These rays show a rapid softening with altitude, and essentially the same softening in temperate latitudes as in equatorial latitudes. The observed behavior seems to us to be best interpreted in terms of cosmic ray photon bands of widely differing penetrating power, the less penetrating bands coming into play at the higher altitudes.

The magneto-optic method of analysis and some recent applications: FRED ALLISON (introduced by Arthur L.