

grouped by subjects under the classification used by the U. S. Patent Office. This publication is the result of work of the foundation in cooperation with a committee of the Synthetic Organic Chemical Manufacturers Association, of which D. B. Keyes, of the U. S. Industrial Alcohol Company, was chairman. This list is published primarily in order that all manufacturers may have a quickly available and comprehensive listing of all patents owned by the foundation in which they may be interested, and it is hoped by means of this to avoid a repetition of the happenings in the case of methanol where important patents lay unlicensed in the files of the foundation for months after the product was being manufactured in Germany and imported into the United States in large quantities.

A LARGE collection of birds obtained in the valley of the Rio Purús, Brazil, by S. M. Klages, has recently been received at the Carnegie Museum, Pittsburgh. The collection contains many species hitherto not represented in the collections.

PRESIDENT COOLIDGE recently signed an executive order creating the reservation at Camp Upton as a National Forest and sanctuary. It is estimated that eighty years must elapse before the tract can return to its former wooded condition.

THE first progress report of the Foot-and-Mouth Disease Research Committee, of England, is largely of a preliminary nature: researches and experiments include those on cattle, sheep and pigs, and arrangements for this class of inquiry have been completed. The extensive and well-appointed buildings at Pirbright, Surrey, constructed and equipped as a cattle testing station, have been placed at the disposal of the committee by the Ministry of Agriculture and are admirably adapted for the purpose. The investigation will be of such a searching character as should lead to definite results, as far as present suggestions and theories can affect the situation.

### UNIVERSITY AND EDUCATIONAL NOTES

By the will of the late Dr. John W. Elliott, of Boston, Harvard University will receive \$5,000 for the medical school and \$5,000 for the general purposes of the college.

THE late Colin Thomson has bequeathed a quarter of the residue of his estate, estimated at £25,000, to the West of Scotland Agricultural College, to be devoted to research work and scholarships.

RECENT changes in the department of botany at the University of Pennsylvania include the appointment

of Dr. William Seifriz, during the past year the holder of a National Research Council Fellowship at that university, to a professorship in botany. Dr. Irwin Boeshore, instructor in botany, has been promoted to an assistant professorship. Additional space to be devoted to individual laboratories for faculty and advanced students has been obtained by using the residence building of the Botanic Garden for that purpose.

New members of the faculty of the University of Louisville School of Medicine include Dr. Richard W. Jackson and Dr. Ralph J. Kaufman, professors of physiological chemistry, and Dr. M. W. Caskey, professor of physiology and pharmacology.

DR. LLOYD L. SMAIL, assistant professor of mathematics in the University of Oregon, has been appointed associate professor in the department of pure mathematics at the University of Texas.

W. T. READ, recently a member of the Yale University faculty and in charge of the technological courses at the Chemical Exposition in New York since their inauguration, has been appointed professor of chemistry at the Texas Technological College, Lubbock, Texas.

New appointments in the department of physics of Washington Square College, New York University, are: H. Van Norman Hilberry, formerly of the University of Chicago; W. Wenger, of Wooster College, and R. M. Williams, of Nebraska Wesleyan College. Dr. van der Merwe and Dr. Max Petersen have been promoted to the rank of assistant professors.

DR. EDWIN M. BAILOR has been appointed assistant professor of psychology at Dartmouth College.

KIRBY E. JACKSON, of Athens College, Alabama, has been appointed associate professor of chemistry in the State University of Washington.

DR. HELEN INGLEBY, of London, has been appointed professor of pathology at the Woman's Medical College of Pennsylvania, succeeding Dr. Maude Abbott, who has returned to McGill University in Montreal.

DR. CHI-TING KWEI, who recently received the Ph.D. from Princeton University, has returned to Changsha, China, where he is to be head of the physics department at the College of Yale in China.

### DISCUSSION AND CORRESPONDENCE THE UNDERWORLD OF SCIENCE

FEW scholars realize the existence of what may be termed the underworld of science, books which go through the motions of science regardless of its method or its purpose. The function of science, as Agassiz

used to say, is to "strive to interpret what actually exists." This process is always slow, and, however delightful, it requires a patience and exactness which is in a degree painful and which leaves every solution at the end still incomplete. Always a problem once solved, even partially, opens up a long vista of other problems. In this each student must build on the work of his predecessors. Moreover, a discovery worth while is not obtained by accident, nor is it the work of the beginner or the amateur. It requires the eye of a master to make a new observation, the hand of the master to devise a new experiment. Everything easy has been detected and found out. Facts in themselves, again quoting Agassiz, "are stupid things until they are linked together." All we know is derived from human experiences. We know nothing until we (that is humanity) have found it out. Science or knowledge is the result of human experience, tested and set in order. When intelligibly stated, in terms of human experience, it becomes truth, and truth is never complete; it provides for its own further extension. Old outlines of truth are abandoned in time, and once abandoned are never reclaimed. Individuals may relapse into ignorance, but cooperating science never takes a back track.

Individuals naturally grow impatient with the slow progress of testing realities, and seek for swifter answers to the problems of the universe. They would hurry up the future, not by science, but by something that looks like it, and is therefore equally good. The "running high jump" cares nothing for the difference between analogy or chance resemblance, and homology is fundamental identity. It thus confuses attractive fancy with verified truth.

I may illustrate "underworld science" by certain books which have come lately to my notice. In one of these, two sciences, astrology and anthropology, are hopefully united. There are in fact on our earth four seasons of three months each. Each month has its sign in the heavens, the constellation in which for the period the sun seems to be placed. These signs have each its Latin name usually of some animal or of other personality by which influence emanates. When the sun is in one of these signs, the earth is in the opposite, but it is the position of the sun which mainly controls humanity. When the sun is in Scorpio, the earth is in Taurus.

But it is the malignant scorpion rather than the turbulent bull which then directs human affairs. Our luckless planet, caught between these two tremendous agencies, can not fail to be affected and in its most sensitive feature, humanity, and at man's most impressive period, the day of his birth. And here the time-honored science of astrology impinges on one of the newest of sciences, anthropology.

In this particular underworld of knowledge it is recognized that four major races of men exist, the black, the yellow, the red and the white. In each of these races there are three distinct tribes, twelve in all. These correspond to the twelve signs of the Zodiac, the twelve constellations traversed each year by the sun. It is evident that such correspondence is not accidental, and the problem is to trace each different race to the influence of the constellation which has especially moulded it.

The author of a monograph on this subject shows this influence on each race at its initial moment. The sign of the Zodiac gives the character, and race-heredity continues it. But men of other races born under the same sign are sure to show many traces in common with the race thus initiated.

This is proved by a series of illustrative photographs. On each separate page appears a central portrait showing the typical Caucasian, Hindu, Jew, American Indian, Chinaman, as well as one of each of the seven other races. Around each of these typical pictures are grouped portraits of men of European stock, born in the month from which the race in question dates, and these men naturally show features to correspond. Hence in the month devoted to Hottentots, we would find swarthy, curly-haired gentlemen with uptilted noses. These are not born of Hottentot blood, but modified by birth under the Hottentot sun. In the Jewish month are Saxons adorned with the nose called Roman, and so on. To provide these portraits and to group them properly requires a good deal of research, of the type characteristic of the underworld.

Another author, probably a humorist in disguise, elaborately proves the separate origin of the three primal races of man. These sprang from three different species of ape: the Aryan races (Nordic, Latin, Slavic and Hindu) from the chimpanzee; the Mongolian from the orang-utan, and the negro from the gorilla. The occasional occurrence of Morons (currently called Mongolian) in white races proves that there has been an admixture of orang blood among the chosen people, descendants of the chimpanzee. Treated in this fashion anthropology can proceed as merrily as astrology, in leaping from assertion to assertion.

The authors of books of this type often complain bitterly of the "conspiracy of silence" by which scientists strive to smother their inspired or inspiring contributions. It is true that scientific men seldom give them the public notice they deserve, for activities of this underworld of analogy and fancy, the "lunatic fringe of science" is in itself an interesting study.

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