THE National Live Stock and Meat Board will place grants and establish fellowships through the National Research Council for the purpose of increasing the present knowledge of nutrition. The grants may be made either for fundamental or for clinical research on the nutritional properties of meat, meat products and animal fats, and the importance of these nutrients to human health and welfare. This fund will become available on July 1. Applications will be received until March 1. Application blanks may be obtained from the Division of Biology and Agriculture, the National Research Council, 2101 Constitution Avenue, Washington, D. C. In addition to a statement of the problem and research plan or program, the committee in charge desires information regarding the method of attack proposed, the institutional support which will be given the investigation and the uses to be made of the sum requested. No part of a grant may be used by the recipient institution for administrative expenses.

THE Graduate School of the University of Illinois has established four research fellowships in the fields of medicine and dentistry in Chicago at a stipend of $1,200 per year. Fellows are eligible for reappointment in competition with the new applicants. Candidates for these fellowships must have completed a training of not less than eight years beyond high-school graduation. Formal application blanks may be secured from the Secretary of the Committee on Graduate Work in Medicine and Dentistry, 1853 W. Polk Street, Chicago, Illinois.

THE General Education Board of New York City has granted $53,750 to the Louisiana State University for the use of the department of forestry. Of this amount $23,750 will be used for equipment and $30,000 for research, the latter to be expended over a period of three years and to be paid to the university semi-annually. The grant will provide funds for completing the equipment of three utilization laboratories and it is said will give the unit "the most complete utilization equipment, both for teaching and research, of any forestry school in the South." It is planned to study forest land tenure and the effect of such tenure on forestry practices.

PAUL KOLLSMAN, of Greenwich, Conn., the aircraft instrument inventor, has established a fund of $65,000 to endow a library for lending aeronautical books to students of aviation.

Nature states that under the will of Alfred Corner, London, who died in 1934, the university has received £1,440 for the purposes of the Cambridge University Biochemical Laboratory. The full value of the bequest, of which this is an instalment, may approach £1,800.

THE Hungarian Ministry of Internal Affairs has established at Budapest a new institute for research in proper feeding. The building and equipment are modern and will accommodate two hundred country doctors, who will attend courses in the science of nutrition. The staff of the institute comprises clinicians, chemical experts, economists and financial experts.

THE Imperial Agricultural Bureaux, Aberystwyth, Wales, has decided that for the sake of increased efficiency and economy, all work connected with subscriptions, sales and distribution of the journals and other publications of the majority of the bureaux should now be centered in one office. For this purpose, a Central Sales Branch has been organized, with its offices at the Agricultural Research Building, Penglais, Aberystwyth. In future all correspondence dealing with sales and distribution should, with the exceptions noted below, be so addressed. Correspondence on all other matters must still be addressed to the deputy director of the bureau in question. The only publications not dealt with by the Central Sales Branch are those of the Imperial Institute of Entomology (The Assistant Director, Imperial Institute of Entomology, 41 Queen's Gate, London, S.W.7) and the Imperial Mycological Institute (Director, Imperial Mycological Institute, Ferry Lane, Kew, Surrey), and *Nutrition Abstracts and Reviews* (Secretary, Imperial Bureau of Animal Nutrition, Rowett Institute, Bucksburn, Aberdeen).

DISCUSSION

SYMBOLS FOR HUMAN GENES

STANDARDIZATION of symbols for human genes has desirable aspects, as Dr. Strandskov[1] suggests. An International Committee for the symbolizing of genes and chromosome aberrations in all genetic work met in London in August, 1939, and drew up certain rules which have been published.[2] The committee also had under consideration the definition of all genetical terms, but owing to the war that work has not been completed. The Committee on Mouse Genetics Nomenclature has also published a report.[3] The symbols recommended in these reports are not quite the same as those which Dr. Strandskov advocates. For instance, + is used as a superscript to the symbol for the "wild" type.

[1] SCIENCE, 94: 366, 1941.
[2] *Jour. of Hered.*, 31: 27, 1940.
[3] *Jour. of Hered.*, 31: 505, 1940.

These symbols are at least in part applicable to human genetics, but they were drawn up with the needs of experimental genetics particularly in view; and it would be unwise to try to hasten their adoption in human genetics except where their use would help to clarify a particular genetical situation. While there are groups of human alleles which might with advantage receive this symbolization, there are many more where the question of allelomorphism is by no means settled, so that the bulk of such cases must await fuller knowledge.

While it is generally agreed that the AB blood groups are alleles, yet I think the choice of the blood groups as a field to which the new nomenclature should be applied was particularly unfortunate. In the first place, the final form which blood group genetics may take is by no means certain; for instance, as regards the nature of the O and the relations of the A_1, A_2, A_3 and B_1, B_2, B_3 sub-groups. This can perhaps be most clearly seen by consulting, for example, the recent paper of Hirszfeld and Kostuch.[4]

A decade ago anthropologists and serologists adopted internationally the symbols O, A, B, AB for the four human blood groups. These are preferable to the I, II, III, IV schemes of Moss and of Jansky, which partly conflict with each other and have been the source of serious and even fatal errors in connection with blood transfusion in hospitals. The medical profession appears to be gradually giving up this number system and adopting the safer and better ABO system, which is sufficiently genetical for their purposes. It can not be expected that medical practitioners and anthropologists will have an expert knowledge of genetics, although a general knowledge is of course highly desirable.

Geneticists should therefore endeavor to hasten the spread of the ABO system in medical circles. The adoption by geneticists of a new and obscure set of symbols for the blood groups would defeat this end and make their papers on the subject unintelligible to the anthropologists and medical men, for whom the genetical aspects of blood group work should have the greatest appeal.

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SOME FIELD OBSERVATIONS BEARING ON THE ORIGIN OF THE MORRISON "GASTROLITHS"

DESPITE numerous finds of genuine gastroliths in association with remains of fossil vertebrates, a causal relationship between the dinosaurs and so-called "gizzard-stones" of the Morrison formation remains doubtful. The origin of these brilliantly colored and highly polished stones has been speculated upon by numerous observers and opinion has been divided among various theories, not the least attractive and popular of which attributes the polish to the mechanical and chemical action of dinosaurian digestion.

Recent field work, sponsored by the William Berryman Scott Research Fund, on the larger problems of Morrison stratigraphy over extensive areas in Utah, Colorado and southern Wyoming has brought out several facts regarding the distribution and occurrence of these stones which may be significant:

(*a*) Within the Morrison the association of dinosaur remains and "gastroliths" seems entirely fortuitous. Where tremendous quantities of fossil bones are found as at the Dinosaur National Monument, near Jensen, Utah; at the Malcolm Lloyd Jr. quarry near Cleveland, Utah, and at the Como Bluff and Bone Cabin quarries in southern Wyoming there is no unusual concentration of "gastroliths." In fact, during recent excavations at the Lloyd quarry not a single stomach-stone was found among the remains of a dozen or more dinosaurs, including Antrodemus, Ceratosaurus, Stegosaurus, Ornitholestes, Camptosaurus and two large sauropods. Furthermore, great quantities of "gastroliths" may occur, constituting at places a veritable conglomerate, without fossil bones being in evidence.

(*b*) In the Colorado Plateau the "gastroliths" occur only in the upper portion of the Morrison in beds which are relatively barren of fossils and which show some lithic differences from the underlying fossiliferous portion of that formation. "Gastroliths" are found most abundantly in thin zones or "stringers" near the base of this upper unit. The rock types making up the "gastroliths" are identical with those found in a persistent but thin conglomerate between the two units just mentioned and the inference seems logical that regardless of the origin of their polish the stones were derived from the same source as the conglomerate or from the conglomerate itself.

(*c*) The distribution of the "gastroliths" is by no means coextensive with the Morrison formation as none were found in that formation south of a line running roughly from the Henry Mountains, Utah, to the Black Canyon of the Gunnison River in Colorado. Likewise a hurried search failed to reveal any east of the Front Range. The geographical distribution seems to coincide quite closely with that of the conglomerate noted above. Dinosaur bones, however, are present in the usual numbers in regions where "gastroliths" are absent.

The facts listed above, in conjunction with others apparent from a close comparison of the "gastroliths" of the Morrison with undoubted stomach-stones, seem unfavorable to the dinosaur hypothesis, but it is admitted that there are many peculiar facts of distribution which are difficult to explain by any theory.

[4] Über das Wesen der Blutgruppe O. *Klin. Wochenschr.*, 17: 1047–51, 1938.