the data in Table 1 it is evident that the new plastic all-lard shortening and the well-known, all-hydrogenated vegetable shortening are equally digestible when fed to white rats. Therefore, they should be equally digestible in humans. The lard shortening has the added advantage that, due to the fact that the major portion is not hydrogenated, there has been no appreciable destruction of the naturally occurring, essential, unsaturated fatty acids. Thus it is evident that, although the lard-type shortening is probably nutritionally superior on the overall basis, both types of shortening are highly digestible and nutritious.

KARL F. MATTIL, JIM W. HIGGINS, and H. E. ROBINSON

Research Laboratories, Swift & Company
Chicago, Illinois

The Fireland Tribes of Chile

A Chilean Scientific Mission for the Study of the Fireland Tribes has recently finished field work begun in late January. The Mission was sponsored by the Universidad de Chile, the Dirección General de Informaciones y Cultura, the Museo Nacional de Historia Natural, and the Dirección General de Sanidad. The members of the Mission were: Gen. Ramón Cañas Montalva, geographical adviser; Alejandro Lipschutz, director of the Department of Experimental Medicine, chief of the Mission; Com. Lt. Col. Gustavo Luco, liaison officer of the Armed Forces and the Dirección General de Informaciones y Cultura; Grete Mostny, chief of the Department of Archaeology and Ethnography of the National Museum of Natural History; Juan Damiánovic, chief of the Health Service of the province of Magallanes; Fidel Jeldes, technician of anthropology of the Institute of Criminology of Chile; Hans Helfritz, cameraman of the Dirección General de Informaciones y Cultura; and Antonio Santiana, from the University of Quito, guest of Prof. Lipschutz. Louis Robin, member of the French Mission sent recently to Chile by the Musée de l'Homme, also took part in the work of the Mission. Mrs. Lipschutz accompanied the Mission. Work was greatly helped by the Armed Forces of Chile and especially by the Air Force. Mobilization was mostly by air. The members of the Mission flew over the Cordillera de Darwin to a clearing near the Bay of Yendegaia, where field work was begun. From there the Mission continued on the Argentine Navy patrol boat, "Zurubi," to work in various parts of the northern and southern shores of the Beagle Channel. This facility was generously offered by the Governor of Ushuaia. Adm. Portillos also rendered great help to the Mission.

The work for the Mission centered on (1) transculturation phenomena, including nosology, and (2) physical anthropology, including blood groups. These studies are urgent because of the great changes which have taken place in the whole tribal life of the Fuegians since Martin Gusinde finished his classical field work 20 years ago and because these tribes are on the way to rapid extinction.

The Mission has studied about two-thirds of the individuals known to be members of the Yámana (Yáhgans) tribe, who live mostly on the island of Navarino. On the Isla Grande the Mission examined half of the individuals of the tribe of Onas, including mestizos, who live mostly near Rio Grande on the Atlantic border of the Isla Grande. An inquiry was also made about the remaining half of individuals of Ona extraction who live around Lago Fagnano, where the Mission was unable to go because of poor roads and lack of lodging. Various members of the third Fireland tribe, the Alakalufs, also were studied. Only 17 Alakalufs, or Alakaluf mestizos, were accessible, since the majority of them wander in their canoes in the channels of the South.

The results obtained were of great interest from the point of view of acculturation in its different aspects and also from the point of view of physical anthropology. Blood groups were determined in 20 individuals of Ona extraction (half of the whole population), 40 of Yámana extraction (two-thirds of the whole population), and 17 of Alakaluf extraction. In all three tribes about 75 per cent were of Group O, contrary to what was found formerly by Rahm in Yámana, most of whom, he stated, were of group B. Since the Mission studied most rigorously the genetic antecedents of all the individuals available, it was possible to establish that all the individuals who do not belong to Group O had some white ancestry which the Mission was able to trace, in almost all cases, to parents or grandparents of the respective individuals. The Mission came to the conclusion that the Fuegians, like the American Indians in general, belong to Group O, and that the presence of Groups A, B, and AB is due to infiltration of the respective blood factors through miscegenation with whites. Different cases of "ethnic mutation" also were studied with special reference to the social factors responsible. Informative films and especially documentary films of the facial typology of the Fuegians were made.

A group of the Mission, including Prof. and Mrs. Lipschutz, Dr. Mostny, and Mr. Helfritz, flew over the islands and Cape Horn to complete their knowledge about the most southern zone visited by the wandering Indians in their fishing and hunting expeditions.

Results, together with ample photographic material, will be published in a series of papers.

A. LIPSCHUTZ

Avenida Irarrázaval 849, Santiago de Chile

On Opinions of the International Commission on Zoological Nomenclature

William F. Rapp, Jr. (*Science*, 1945, 102, 17) has outlined the story behind the Meigen names that for 38 years have confused the orderly progress of dipterists in their work. But the criticism of the Opinions of the International Commission is based on misunderstandings that should be clarified.

In issuing Opinion 28 in 1910, the Commission did the only thing then within its power: decided whether or not the paper was published under the meaning of the code. It had no power to make exceptions, and it did decide, on what it believed to be conclusive evidence, that the

paper had been duly published; hence the names were on the same status as those in any other paper. Having so decided, it could not answer Dr. Aldrich's question of whether the 1800 names were valid, because that embraced as many taxonomic questions as there were names involved, did not fall in the province of nomenclature, and lay outside the scope of the Commission.

The results of Mr. Edwards' 1932 questionnaire were never laid before the Commission, nor was the Commission asked to take any action by Mr. Edwards.

But in 1932 the Fifth International Congress of Entomology adopted (with dissenting voices) a four to two majority resolution of its Committee on Nomenclature and transmitted it to the International Commission on Zoological Nomenclature for action. This resolution definitely recommended that the names of Meigen (1800) be sustained. I was present at that Committee meeting and was, I think, one of the two who voted against the resolution, but I do recall that it was championed by an eminent dipterist.

The resolution presented an impossible request to the International Commission. No such body could properly establish a blanket validation of any long list of generic names, least of all names with which no species had originally been connected, and the correct application of which could therefore individually be highly debatable on zoological rather than nomenclatorial grounds. The Commission has always followed a policy of refusing to act on blanket requests.

In Opinion 152 (adopted in 1935) the Commission politely refused to accede to the request of the Fifth International Entomological Congress. The explanation of the situation by Secretary Hemming, published in the Opinion, is very clear. The Commission went further and advised dipterists or others interested that they would welcome petitions to suspend the rules in any given case where the Meigen names cause confusion.

It is no part of the function of the Commission to initiate such action, or any action. Its function is judiciary and may be likened to that of the Supreme Court of the United States in interpreting the meaning of our Constitution as applied to individual situations that may arise. It would be a woeful ignorance of judicial procedure that would expect our Supreme Court on its own initiative to seek out dubious situations and to render a decision covering them.

The blame for the confusion in regard to the Meigen names falls squarely on the shoulders of dipterists. Had any one of them, after the Commission was given authority to suspend the rules (by the Ninth International Congress of Zoology, 1913), presented petitions to the Commission requesting suspension of the rules in regard to any or each of the Meigen names that are found obnoxious, each petition individually would have been acted upon, and by now the names involved would either have been definitely adopted, or rejected in favor of certain others. Even Edwards, after taking the pains to circularize dipterists as to their opinion upon the Meigen names en masse, never requested any action of the Commission either upon the names en masse (which probably would not have been considered) or upon them individually, which certainly would have been.

A similar situation arose in Hymenoptera. There the so-called Erlangen list and other considerations threatened a grand stirring around of family names. The undersigned prepared a series of petitions to the Commission, each covering a single name or series of interdependent names, some involved in the Erlangen list, others not involved. He sent copies to all working hymenopterists known to him and asked them either to sign or to indicate their disapproval. These petitions, with signatures and comments, were presented to the Commission, have all been acted upon, have all but one been granted by the Commission, and as a result we have available for use the family names in Hymenoptera that the usage of the 19th Century established. Blame for the fact that dipterists are not as well off cannot be fairly laid to the Commission.

J. CHESTER BRADLEY
Cornell University, Ithaca, New York

Successful Interchange of Ovaries Between Albino Rats and Mice

The present note deals with transplantation of entire rat ovaries into mice and vice versa. Each ovary was "shelled out" of the ovarian bursa, removed intact, and inserted into a corresponding location in the recipient. Excised ovaries were simply exchanged between adult rat and adult mouse. Both unilateral and bilateral implants were made. Approximately seven weeks later the transplants and (when present) the original undisturbed ovary of the opposite side were examined histologically. All implants had persisted, and all had an excellent blood supply. In several of the rat ovaries which had been implanted into mice there was regression, although some contained developing follicles in various stages. Some of the mouse ovaries, which had been implanted into rats appeared cystic, as from overstimulation. It is suggested that the large mass of adult rat ovarian tissue is insufficiently stimulated by the mouse pituitary, while the rat pituitary overstimulated the relatively smaller adult mouse ovaries.

One rat delivered a normal litter of seven young 18 days after receiving two mouse ovaries in substitution for her own. She failed to lactate. One mouse which received a unilateral substitution had a litter of seven apparently normal young 12 days later and also failed to lactate. Experiments are being continued.

JAMES M. SANDERS
Department of Anatomy, University of Missouri, and *Department of Science, Chicago Teachers College*

Lomonósov and the Concept of Heat

My attention has been called to an article (*Science,* 1945, **103**, 487) in which the author feels that insufficient tribute has been paid to M. V. Lomonósov and states that his name has never been mentioned in the European and the American scientific literature in connection with the development of our concept of heat.