

'A Nineteenth Century Geometry': ARCHIBALD HENDERSON.

'The Absolute Properties of Molecules': J. E. MILLS.

CHAS. BASKERVILLE,
Secretary.

DISCUSSION AND CORRESPONDENCE.

A GEOGRAPHICAL SOCIETY OF NORTH AMERICA.

IF a general American Geographical Society, equivalent in rank to the Geological Society of America, could be developed by following Professor Russell's plan (*SCIENCE*, Jan. 31), there is no question that great good would come from it; but I do not believe that his plan would lead to the desired end. After stating some of its difficulties, I will present an alternative.

Centralization that weakens local activity is of doubtful value. It is perfectly true that the publications of the existing geographical societies are not always of a high order, but they are the best that the local societies can produce; they serve a very useful purpose in providing opportunity for beginners to publish their early efforts; they are the necessary steps toward something better. Furthermore, several of the local journals, being largely concerned with personal narratives of outings and excursions, are of greater interest to their local readers than any general and scientific geographical journal could be. It would more likely kill than kindle geographical interest to replace such local journals by a high-grade scientific central journal. The sufficient reason for this is that the great majority of the local readers are not geographers. This leads to the next difficulty.

No equivalent of the Geological Society of America could be made by uniting the existing geographical societies of the country. Candidates for membership in the Geological Society are carefully scrutinized. They must have had good scientific training and they must have actually accomplished something in the way of geological work, either in the field or in the lecture room, before they are recommended by the Council of the Society for election. The standard of training and accomplishment is not by any means discouragingly high, but it is set at such a level

that membership in the Society really means something regarding a member's geological attainments. There is not a single geographical society in the country in which there is any corresponding requirement for membership. Any reputable person who is willing to pay the necessary fee may be elected. The societies are all glad to add his name to the count of members, and his fee to the treasury. In some of the societies it may perhaps be assumed that a considerable number of members feel a certain interest in the general subject of geography, an interest that is passive rather than active; but in nearly all the societies there is a large number of members whose interest is excited chiefly by the meetings, outings and excursions that the societies promote. Even in this respect, only one society, the Mazamas, exacts any performance as a measure of interest, and the performance that it demands—the ascent of a mountain some thousands of feet in height—is no more a test of geographical training and accomplishment than is the test that might be exacted by a yachting or a hunting club. By all means let the meetings, outings, excursions and mountain ascents continue; let the societies that conduct them flourish; let the publication committees secure the best narratives that the members can produce; but do not let us imagine that the members of these societies are all geographers.

Turning now to constructive suggestions: Let the proposed society be satisfied with the northern part of the New World for its field; let its name be the Geographical Society of North America, in order not to imply that America is all north of the Isthmus, and not to infringe upon the name already occupied by the society long established in New York city. Let the various geographical societies of North America be invited to send delegates, one for every five hundred members, to Pittsburgh next summer at the time of the meeting of the American Association; and let these delegates invite fifty or a hundred persons of real geographical attainments to become 'original members' of the new society. Let those who accept this invitation meet at Washington in Convocation Week, 1903, and

proceed with the more formal organization of the society. Let them at the beginning imitate the Geological Society of America and other societies of similar grade by requiring that all approved candidates for membership shall be well-trained and productive students of geography, or of some phase of that broad subject. Let the membership fee be set at such a figure that the society may be self-supporting, able to conduct its own publications. Let essays for publication be carefully scrutinized by the council, and let it be recognized that a merely personal narrative of travel no more constitutes a geographical essay because it mentions a harbor or a hill than it constitutes a botanical essay because it mentions a swamp or a forest. Let it be understood that all communications must present an objective account of some element of inorganic environment, or of some organisms in their environment, or an account of the relationship of the two. Let such treatment of the subject be required as shall indicate that the contributor has had sound training in preparation for his work of observation, description, generalization, inference and so on; let the work of apprentices and amateurs be referred to local societies for further development before acceptance in the general society. In a word, let the beginning be marked by careful attention to quality rather than to quantity. Let growth be sound even if slow. Let membership be accessible not to the mere traveller, the lover of outdoor nature or the reader, but only to the investigator, whether he stays at home or roams abroad. Let a standard be set that will demand training and accomplishment on the part of those who reach it, in contrast to the dilettanteism that suffices for membership in all the present geographical societies.

The manifest difficulty in the way of establishing and maintaining such a society is the great diversity of interests among those who should be considered as trained geographers: The subject is a natural unit for schools in its elementary reaches; but the paths of its maturer scholars are divergent. The geodesist, the meteorologist, the hydrographer, the geomorphologist, the ethnologist, the economist, might perhaps repel rather than attract

one another, so unlike are their lines of thought and their methods of work. Their association with other sciences might be stronger than with geography; the geodesist with astronomy, the meteorologist with physics, the hydrographer with engineering, the geomorphologist with geology, the ethnologist and the economist with ethnology and economics. But diversity of specialization characterizes all learned societies. In the Geological Society, the paleontologist does not always listen attentively to the glacialist, nor the petrographer to the physiographer, and all these sometimes fail to follow the local stratigrapher. Diversity of interest does not, therefore, prohibit the effective union of experts; and such a union along geographical lines would be well worth trying. I hope that others who may be interested in any aspect of this scheme will send a statement of their opinions either to SCIENCE or to Professor Russell direct. If a considerable measure of interest is thus indicated, let us beg Professor Russell to proceed in the direction indicated by the majority of his correspondents and take the necessary steps for a preliminary meeting at Pittsburgh, so that an effective organization may be made at Washington a year hence.

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THE RISE OF ALKALI SALTS TO THE SOIL SURFACE.

THE explanation given by Means (SCIENCE, of January 3) of the accumulation of soluble salts on the surface of soils by the differential action of capillary and gravitational pores, seems also to offer a correct explanation of the length of time and large amount of water required for an effectual leaching-out of alkali salts by flooding. The fact shown in the investigations of the California Station, that in coarsely sandy lands the maximum of the salts is found not *at*, but at some distance *below*, the surface, offers a correlative corroboration.

But this explanation certainly does not apply to the case referred to by Means, viz.,