arrangement of contacts is maintained as the number of contacts becomes increased from 8.4 to 14.17, with additional pressure.

Lewis[2] has shown that the cells of the elder pith have an average of fourteen facets, and he emphasizes the orthic tetrakaidecahedron as a possible fundamental shape in such tissues. None of the orthic tetrakaidecahedra of Lord Kelvin, with eight hexagonal and six square faces, were found among the lead balls examined; however, when all the spaces between the shot were eliminated, the average number of contacts was very near fourteen. A less regular tetrakaidecahedron was formed, having in addition to hexagonal and square faces a relatively large number of pentagonal sides. This shows that the regular arrangement of spheres necessary to form the orthic tetrakaidecahedron of Lord Kelvin on compression was not present when the shot were merely poured into the cylinder. It also helps to explain the occurrence of pentagonal faces in the cells of elder pith found by Lewis.

That contact and pressure must be of marked importance in the determination of the number of faces occurring on parenchymatous cells seems obvious from the above experiments. It is further highly probable that the occurrence of intercellular air spaces in parenchymatous and other tissues is correlated with contact and pressure relationships. On the basis of contact and pressure alone, fewer contacts between adjacent cells would be expected in tissues with abundant air spaces.

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HABITAT OF OPHIOSAURUS VENTRALIS

Two specimens of *Ophiosaurus ventralis* were discovered in Cumberland County and one specimen in Buckingham County, Va., in September, 1937. The first two specimens had been killed on the highway by automobiles; the third one was captured and is now in the possession of the farmer who found it in Buckingham County. The distance from the most eastward to the most westward of these finds was about twenty miles. These counties are in Piedmont Virginia, about seventy-five miles north of the North Carolina line and 150 miles west of the Chesapeake Bay.

Since Ditmars places the Northern limit of this reptile in the eastern part of the United States as North Carolina, and Jordan as "to Virginia," it seems that these are the first recorded specimens for this section of the country.

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[2] F. T. Lewis, *Proc. Am. Acad. Arts and Sci.*, 58: 537–552, 1923.

FRESH-WATER MEDUSAE IN VIRGINIA

FOURTEEN miles south of Lynchburg, in Crystal Lake on the James Wamble estate, gonosomes appeared in large numbers about August 5, and have been observed there at frequent intervals to the present (September 29). Vertical migrations of the medusae have been noted, showing no observed correlation with temperature, sunlight, wind or time of day. Sometimes the top meter of water over the greater part of the pond showed jellyfish actively swimming about. As many as 70 fair- to large-sized specimens have been counted in each cubic meter of water on such occasions. On other days, few medusae were seen except in the wake of the boat or where the water had been stirred to some depth by means of a paddle. A few triradiate and quinqueradiate specimens were collected. The average catch (quadriradiate) measured considerably larger than fresh-water medusae hitherto reported, some reaching a diameter of 22 mm. Otherwise the descriptions given for *Craspedacusta ryderi* (Potts) fit well enough. The reflexed, upstretched, long tentacles seem highly characteristic of even small specimens. All appear to be females. Parts of the lake where the depth is greater than two meters are well populated with medusae; between one and two meters they are less common, and in less than one meter of water they are rare. The water temperature at present is about 24° C. The water has a high organic content, and the bottom where shallower than two meters is densely covered with Utricularia. A green Stentor and a Spirostoma were very conspicuous protozoans occurring there in great numbers. The pond is created by an earthen dam which restrains a very small stream, and has been in existence some ten years. The pond was stocked with fingerling bream and black bass two years ago. Eels have been caught there, although the emptying stream is very small and quite shallow. The plant growth was largely cleared out last year. A search for hydroids was unsuccessful.

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SCIENCE AND DEMOCRACY

HAVING read the quotations from the New York *Times* in SCIENCE of Friday, October 22, entitled "Science and Democracy," I could not help but follow the urge to write my views on the subject.

I certainly admit with the author that freedom of thought and expression is in peril. In the totalitarian states the ruling dictators are going to see that this condition continues. But, I do not believe

that salvation of international democracy of science and of its objective lies in a world-wide organization. Energy put into such an organization is probably desirable if those contributing this energy do not use it all up in world-wide organization. I believe that a much larger amount of energy put into national organization would be justified, both here and in Great Britain, the only two remaining strongholds of democracy. If these strongholds can be fortified and maintained, there will be rallying places that will ultimately be the means of saving science. Charging out into the enemy's country when our own fortresses are being weakened, I believe is not the most satisfactory solution of the difficulty. By putting and keeping our own house in order, I believe that most can be accomplished for our foreign brethren.

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THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

MEETING OF THE EXECUTIVE COMMITTEE

AT the autumn meeting of the Executive Committee, held in Washington, D. C., on October 30 and 31, Drs. Cattell (*chairman*), Birkhoff, Caldwell, Chamberlin, Compton, Conklin, Livingston, McKinley, Moulton and Ward were present. A great deal of time was given to considering such matters of general policy as changing emphasis in the aims of the association and the character of its meetings, methods of extending its membership and influence, the promotion of broad symposia, the function of branches of the association and the use of the radio. Although these discussions did not crystallize into final form for recommendations to the council, they contained the promise of possible important developments in the work of the association.

MEMBERSHIP

At September 30, 1937, the total membership of the association was 18,303, of whom 744 were in arrears on their dues for one year and 490 for two years. During the fiscal year ended September 30, 1937, the membership of 528 persons lapsed for non-payment of dues, 355 members resigned from the association, and 198 members died. During the same period 35 members were reinstated and 1,107 new members were elected. Thirty-nine members became life members upon the payment by each of them of $100 to the association. The office of the permanent secretary sent out 37,754 letters for the purpose of obtaining new members. Heretofore all memberships of the association began as of October 1; henceforth, by vote of the executive committee, they may begin as of the first of any month.

FINANCIAL

Although the financial reports of the permanent secretary and the treasurer of the association are subject to audit, certain provisional figures may be presented now. The total income of the office of the permanent secretary for the fiscal year October 1, 1936, to September 30, 1937, was $86,541.86. The total expenses of the office of the permanent secretary were $84,647.99, of which $52,083.49 was for subscriptions for journals for members (including foreign postage), leaving a net balance of income over expenses of $1,893.87, or about 2.2 per cent. of the total income. The net expense of the Atlantic City meeting was $1,133.59, and of the Denver meeting, $3,763.95. The net profit to the association of the scientific exhibit at Atlantic City was $1,817.68.

The treasurer of the association reported cash receipts from all sources of $20,447.66 and total cash disbursements of $16,650.39. The cash balance of the treasurer at the beginning of the fiscal year was $15,524.43 and at the close of the year was $19,321.71. The treasurer reported that total assets of the association at the close of the fiscal year amounted to $271,087.07, of which $19,321.71 was in cash and the remainder in securities and mortgages. Of the latter, $108,836.45 was in endowment funds for promotion of scientific research.

The budgets of the office of the permanent secretary and of the treasurer were referred to the council with the approval of the executive committee. The executive committee appropriated to the Committee on Grants the sum of $2,000 for allotments in aid of research, and enough from the funds available for the purpose to make allotments for research through the state academies of science in accordance with methods heretofore in use.

ITEMS RELATING TO FUTURE MEETINGS

Indianapolis Meeting: The problem of the nomination of fellows of the association was referred to the Secretaries' Conference for consideration. The permanent secretary was authorized to have printed complimentary tickets for admittance to the general sessions of the association and to the exhibits. The appointment of the prize committee was placed in the hands of Professor F. K. Richtmyer (*chairman*) and the permanent secretary. It was voted that a suitable diploma be provided to accompany the $1,000 prize.

Ottawa Meeting: Dr. Ward was appointed to repre-