

when these were examined on September 6 that all the eleven were females.

According to Mr. McCann this is the third consecutive year that medusae have appeared in Andrew Jackson Lake. Each time they have lasted about 45 days, at the end of which time they more or less suddenly disappeared. This year they disappeared about August 3 or 4, according to Mr. McCann. None could be found when the lake was visited on August 14. As far as the writer knows, this is the first record of freshwater medusae in Tennessee.

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### HUNTING IN SOUTH AFRICA

MY attention has recently been drawn to more than one attempt, by advertisement and otherwise, to entice overseas sportsmen to the Union of South Africa with promises of facilities for big and small game hunting. These promises are couched in language that is unjustifiably optimistic, not to say misleading.

There is still much good hunting to be had in many parts of South Africa but mostly on privately owned farms, where in many cases game is carefully preserved. Speaking generally, game is to a great extent strictly protected by law throughout South Africa, particularly in the Transvaal, and permits for shooting certain species of game are only granted in those districts where those particular species are fairly numerous.

Roan antelope are being strictly protected everywhere. Only in special circumstances will permits be

issued for shooting oribi, reed buck and sable antelope. Permits to shoot wildebeest, zebra, kudu, impala and waterbuck are only issued in those districts where these animals are sufficiently plentiful. Permits to shoot elephant, hippo, rhino and giraffe are not to be obtained. Even a farm of 10,000 acres well stocked with game might easily be deserted by game, other than birds, after a week or two of intensive shooting, and disappointment is bound to be the lot of many who come to South Africa on the strength of such promises.

Sportsmen who propose visiting South Africa in the hope of getting some big or small game hunting will be well advised to make the closest inquiries before concluding arrangements with persons offering hunting facilities. The Wild Life Protection Society of South Africa is prepared to give advice on game to any one who desires to visit the Union of South Africa on a shooting trip.

J. W. H. WILSON

### THE STRUCTURE OF THE INSULIN MOLECULE

IN the article entitled "The Structure of the Insulin Molecule" in the issue of SCIENCE for August 12, two corrections should be made. There should be substituted for "with six slits whose centers give an octahedron," the following: "which by parallel displacement of faces through  $\pm a/2$  becomes an octahedron with the same distance between parallel faces and consequently." On page 149, line 16, first column,  $66^\circ$  should be substituted for  $6^\circ$ .

D. M. WRINCH

## ABSTRACTS OF PAPERS READ AT THE AUTUMN GENERAL MEETING OF THE AMERICAN PHILOSOPHICAL SOCIETY

At the autumn general meeting of the American Philosophical Society held in the hall of the society on Independence Square, Philadelphia, on November 18 and 19, the following papers were presented:

*Agriculture and current population trends.* CONRAD TAEUBER. Reproduction rates in the farm population indicate an excess of approximately two thirds above replacement needs per generation, but rates of reproduction for the non-farm population are not now sufficient for permanent maintenance of present numbers. Within the farm population there is wide variation, rates of reproduction in the native white group ranging from 1.00 in Connecticut to 2.11 in Utah and rates among Negroes ranging from 1.47 in Arkansas to 2.14 in North Carolina. In general, rates are higher in the South than in the North and West; among Negroes and other colored groups than among whites, and among foreign than among native stocks. There is an inverse relationship between level of

living and population fertility ratios. While no single factor serves to account for the differentials in the rates of reproduction within the farm population, significance attaches to the nature of the prevailing agriculture. The population engaged in a rationalized, commercial agriculture tends to have lower rates of reproduction and is less elastic for population growth than that engaged in a less commercialized, more nearly self-sufficient agriculture. This relationship is especially clear in areas with approximately the same plane of living; rates of reproduction in the Southern Appalachians tend to exceed those in the Cotton Belt. Changes in farm population between 1930 and 1935 illustrate the same principle. Some of the areas where commercial agriculture is dominant lost population throughout that period, whereas areas with less highly commercialized agriculture more frequently retained their own natural increase and received migrants from non-farm areas.

*The social environment as a factor in population*