
MEETING OF THE BIOLOGICAL CLUB.

ORTON HALL, Feb. 6, 1905.

The vice-president, Miss Riddle, called the club to order. The minutes of the previous meeting were read and approved. Prof. Schaffner spoke of a short letter which he had received from Prof. Kellerman. The party in Central America were enjoying the trip very much but were too busy to write.

The first paper of the evening was by Mr. L. H. Scholl on "Cotton and its By-products." Cotton has been raised in Texas since the Anglo-Saxon settlement and now the state produces one-fourth of all the cotton in the U. S. The Cotton Boll Weevil introduced from Mexico about 1892 has threatened the cotton interests of the state. But it has been found that by increased and better cultivation, change of crops, clearing the ground, etc., cotton can be raised in spite of the weevil. Formerly the cotton seeds were thrown into the rivers or burned, but recently science has shown that this perhaps is not the least valuable part of the crop. The products are used chiefly for feeding cattle but the meal is also used for fertilizer. Cotton seed oil is used in place of olive oil, for salad oils, butter oils and is used to adulterate many other oils as linseed. The lint from the seeds is made into cotton batting, paper, etc. The stalks yield a good fiber. The honey taken by the bees from the glands on leaves, stems and

flowers is also valuable. Mr. Scholl exhibited a fine line of sample of the various by-products of cotton seed.

Mr. Dresbach presented a paper on the "Form and Structure of the Red Blood Corpuscle." Weidenreich of Strassburg contends that the mammalian erythrocytes are not biconcave but bell-shaped. His conclusions are based: (1) upon the fact that when the corpuscles are fixed with osmic acid, immediately upon escaping from the blood vessels, the great majority have the bell form; (2) the corpuscles have this form in isotonic solutions as a .65% NaCl solution for mammalian corpuscles; (3) Weidenreich claims to have seen the bell-shaped cells in the circulating blood of the rabbit. He concludes that the biconcave form is due to the extreme sensitiveness of the corpuscle and is produced by slight increase of the density above the normal. As to the structure of the corpuscles, Weidenreich thinks that they consist of a distinct cell wall which encloses the haemoglobin and other constituents. The behavior of the cells in such fluids as water, salt solutions, tannic acid solutions, etc., points to the presence of a cell wall. No stroma or framework exists. Mr. Dresbach also reported that an extended study of the case of elliptical human red corpuscles, which he described last year has confirmed his opinion that the extraordinary shape was normal in the subject and not due to any known disease. It was probably of embryonic origin or possibly congenital.

Mr. Metcalf reported the probable occurrence of the Swamp Sparrow in Ashland County in the latter part of December. He also reported the Kildeer, Canvas Back Duck and Horned Grebe observed at the same time as unusually late.

The club adjourned to meet the first Monday in March.

F. M. SURFACE, *Sec.*

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