down almost to an even 13 years for those born in 1918. This march toward ever earlier menarchial age seems to be a world-wide phenomenon no longer subject to question.

The earlier development of menstrual functions has been accompanied by a steady and marked improvement in growth and adult stature, an improvement found in practically every population mass for which growth statistics have been examined in recent years. In animals, also, it has been pretty well established that the time of onset of sexual functions is determined more by the stage of physical development than by chronologic age. More rapid growth in animals, as in girls, is associated with earlier onset of sexual functions.[5, 6, 7, 8] The change in menarchial age so universally observed in many countries and races may therefore well be regarded as only one phase of the general world-wide quickening and improvement in the physical development of man.

In the light of this more general view of the facts available, would it not perhaps be better to place more reliance on the observations of MacDairmid and Cook, even though they are unsupported by actual statistics? It may be that the menarchial age for these Eskimos did change from nineteen down to fifteen and a half years during the last half century. Such would be an 18 per cent. reduction, as against the 11 per cent. witnessed in Germany up to 1920.

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ERYTHROCYTES OF SLOTH

IN a recent article appearing in SCIENCE,[1] entitled "Elliptical Erythrocytes," Dr. M. C. Terry has expressed hope "that some one who is in a position to do so will tell us who is right about the erythrocytes of the sloth." The point in question concerns the actual shape of the erythrocytes.

During the past year while a research fellow in the laboratory of histology under Dr. H. E. Jordan, we had an opportunity to study the blood elements of the two-toed Panamanian sloth (*Choloepus hoffmanni*). A number of these animals had been secured and transported to Virginia for study by Dr. S. W. Britton, who in turn furnished us with material for future investigations.

Study of freshly drawn blood, blood smears and bone marrow smears has reassured us that Jordan was correct in his statement that "among mammals the shape of the red blood corpuscles is uniformly that of a circular biconcave disk, except in the Camelidae, where these elements have an elliptical shape." In smear preparations of blood, as well as in stained sections of various tissues of the sloth, erythrocytes are frequently distorted, while many of the less distorted ones present an elliptical shape. In blood smears of both the cat and rat, similarly distorted erythrocytes having an elliptical shape are frequently observed. Any deviation from the circular shape of red blood corpuscles among these animals, as observed in prepared material, is unquestionably due to external factors.

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SCIENCE IN THE OLD SOUTH

IN an article entitled "Science and Society in Ancient Rome," Dr. William Salant[1] in advancing the view that society determines the growth or the decline of science, states: "As Kofoid[2] pointed out in a recent article, science worthy of the name scarcely existed in the South before slavery was abolished."

Dr. Kofoid's article is a review of a book entitled "Scientific Interests in the Old South," by Dr. Thomas Cary Johnson, Jr., associate professor of history in the University of Virginia. Dr. Kofoid states: "The author's theme is the *refutation of the summary indictment* of Morrison in 'The Oxford History of the United States,' volume 2, page 15, of the 'non-existent intellectual life' of the South, due to the cultivation of cotton, the neglect of men and the blight of slavery. *The data assembled support his defence,* for they display a wide-spread and active interest in the physical, chemical and medical fields, and a considerable though desultory activity in the natural sciences." (Italics mine).

Among the little-known facts brought out by Professor Johnson are the following: William Barton Rogers, founder and first president of the Massachusetts Institute of Technology, which opened its doors to students (including women) in 1865, succeeded his father, P. K. Rogers, in 1829 as professor of natural philosophy and chemistry at William and Mary College, and from 1835 to 1853 served as professor of natural philosophy and geology at the University of Virginia. On December 11, 1787, James Rumsey of Virginia ran a steamboat of his own invention against the current of the Potomac River at a speed of four miles per hour. Cyrus McCormick, of Pocahontas County (then in Virginia), invented, made and sold his reaper on his father's farm there from 1839 to 1844. Immediately following the opening of the Baltimore and Ohio's first division in 1830, came the Charleston-Hamburg (S. C.) line, with the *Best Friend of Charleston,* the first locomotive made in America for

[6] Carl G. Hartman, SCIENCE, 74: 226, 1931.

[7] Frank K. Shuttleworth, Monographs of the Society for Research in Child Development, National Research Council, Vol. II, No. 5 (Serial No. 12), Washington, 1937.

[8] Cordelia Ogle, *Amer. Jour. Physiol.*, 107: 628, 1934.

[1] SCIENCE, 88: 475, November 18, 1938.

[1] *The Scientific Monthly,* December, 1938.

[2] SCIENCE, 88: 109, 1938.