

cognition of scientific work: Mrs. Henrietta Anne Huxley, widow of Right Honorable Professor Thomas H. Huxley, scientist, £200. Dr. John Thomas, Arlidge, hygienist, £150. James Hammond, mathematician, 120. Oliver Heavyside, electrician, 120. Miss Anne Walbank Buckland, anthropologist, 80. Mrs. Fanny Hind, widow of Dr. John R. Hind, F.R.S., astronomer, 70. Mrs. Margaret Anne Houghton, widow of Rev. William Houghton, scientific writer, 50. Samuel Alfred Varley, electrician, additional, 50. Aug. Henry Keane, F.R.G.S., ethnologist, 50. Misses Frances Elizabeth, Mary and Julia Dobson, sisters of the late Surgeon-Major George E. Dobson, F.R.S., zoologist, each 25.

SURGEON-GENERAL STERNBERG has written as follows to the *Army and Navy Journal* regarding the danger of yellow fever in Cuba: "In your issue of April 23d, page 642, the statement is made that General Sternberg 'expresses confidence in the excellent sanitary provisions of the military service, and does not fear that yellow fever will prove more harmful to the troops than diseases which are common in the Northern latitudes,' etc. I have not expressed any such optimistic opinion, and regret to say that it is not justified either by my studies relating to yellow fever or by my personal experience. History teaches that when a considerable number of unprotected persons are exposed in a yellow-fever-infected locality during the months when this disease is most prevalent (May 1st to November 1st, in the latitude of Havana) an epidemic almost infallibly results. In the last week of April of last year there were 17 deaths and 70 new cases of yellow fever in the city of Havana. Now, suppose that we had a similar number of cases at the same season in New Orleans and that 20,000 strangers from the North should go there to spend the summer, what would be the result? All past experience supports the belief that a majority of them would have yellow fever, and that from 20 to 40 per cent. of those taken sick would die. This is what I anticipate would happen if we should send an army to occupy Havana, or any other infected seaport on the coast of Cuba during the summer months. If, however, these troops could be camped upon high land in the interior,

and circumstances were such as to enable them to comply with all of the exactions of modern sanitary science, I am of the opinion that our loss from yellow fever would not be serious. But in time of war military commanders are expected to take their troops to the points occupied by the enemy, and a picnic in the interior with frequent changes of camp, etc., is perhaps not exactly what we may expect. I am not an alarmist, but I believe in looking facts fairly in the face and cannot allow your statement of my opinion to have currency at such an important moment in our country's history without a protest."

UNIVERSITY AND EDUCATIONAL NEWS.

Two of the conditional gifts of \$50,000 offered by Dr. D. K. Pearsons have been secured by the colleges collecting the additional sums required. The endowment of Beloit College is thus increased by \$200,000 and that of Mt. Holyoke College by \$150,000.

THE sum of \$50,000 has been given from a source not named to Amherst College for an academic hall, to be built in honor of President Seelye. The class of '95 of Amherst has collected \$24,000, with which a laboratory building will be erected.

THE University of Virginia has received \$20,000 from Henry L. Higginson, Treasurer of the J. W. and Belinda Randall Charities Corporation of Monson, Mass., to be used for the erection of a building or as a permanent fund.

A BENEFACTOR of Edinburgh University, who desires for the present that his name should be withheld, has given the University such a sum as may be necessary, but not exceeding £10,000, to build and equip a laboratory and class-room to be used for the teaching of public health.

DR. MERRILL E. GATES has resigned the presidency of Amherst College.

DR. CHARLES HARRINGTON has been appointed assistant professor of hygiene, and Dr. Franz Pfaff instructor in pharmacology and physiological chemistry, in Harvard University.

ROLLINS A. EMERSON, of the Department of Agriculture, and a graduate of the University of Nebraska, has been elected to the assistant professorship of horticulture in his *alma mater*.

He is to assume the duties of the position in April, 1899.

ON the recommendation of the General Board of Studies of Cambridge University a University lectureship in chemical physiology was established without a stipend for the present.

DISCUSSION AND CORRESPONDENCE.

ON THE EARLY SENSE OF SELF.

TO THE EDITOR OF SCIENCE: Professor G. Stanley Hall, in the last *American Journal of Psychology*, asks (p. 354) some questions on the early sense of self, which we may briefly answer on the basis of evolutionary psychology.

1. "In the first contact of hand and mouth does the latter feel the former first and most, or *vice versa*?" We answer that the mouth feels the hand first and most, because the mouth is the earlier integrated tactual organ in the history of life. The hand as locomotive organ modified for grasping, only gradually becomes tactile in the race and individual. The hand is merely one object of the many which the child brings to the mouth for interpretation, and so it mouths the hand rather than handles the mouth. The child comes by the peculiar plexus of sensations involved to understand its hand as a different kind of object from its rattle, namely, as a self-object, a part of the somatic self.

2. "Does the eye first find the hand because the eye moves, or because the head moves, and does a motor or a sensory process lead?" As head-moving as method of vision direction is earlier integrated than eye-moving, we should expect the infant to employ head-moving first, and most largely for some time; and for the same reason motor process would lead. We should expect (as p. 351 instances) that the child would first have its attention called to its hands, not through sensations therefrom like temperature or muscular, but by a general movement of hands happening to occur in the field of vision. More thorough studies of infants with reference to head-moving and eye-moving ought to be made, and especially to learn at what age its attention may be directed to its fingers by, *e.g.*, merely pinching them.

3. "What social and ethical factors are involved in the child's scolding and punishing

naughty hands?" The social factor, imitation, is evident, and the ethical factor of the responsibility of the hand for its own acts before it is fully incorporated into the somatic self is also evident. The child who says, when reproached and punished for pushing over a vase, 'I did not do it, hand did it,' is not necessarily falsifying, but often telling the exact truth about the instinctive independency of the hand in its impulse to grasp and push. The child has no memory of acting through his hand, and practically did not, and hence properly blames and punishes the hand. Far more than the adult realizes, the hand with the very young acts in grasping, touching, etc., instinctively and independently, and only very gradually comes in action to be a part of the real self. The parent who exclaims to the child: 'naughty hand!' and punishes the hand, only helps to keep apart in the child's mind the hand-self and the real self; whereas the child should be helped to incorporate its organs into its real self as fast as possible. Pedagogically this is a matter of considerable importance.

4. "Have we, so far, instinct, feeling, will, reason, attention, or mere automatism?" The earliest sense of self in child life is, no doubt, instinctive, in that it comes spontaneously at the impulse of a vast heredity. A reference of all things to the self, a constant interpretation of environment as to its action on the self, is implied in the whole struggle of existence, and strengthens till it becomes thoroughly integrated, that is, becomes instinct. It is plain that the self-unconscious, self-forgetful animal would not have the least chance of survival; but a continual alertness for self is the prime requisite, though the self at the first is undoubtedly very indefinite. The child in its earliest, most subjective experiences, wherein is the merest glimmer of object, namely, in the primitive flashes of pain and pleasure, awakes to itself, and its general struggling repeats earliest life. In these subjective experiences the child builds an *ego* long before it constructs a definite somatic self of hands, feet, etc., which, indeed, are not felt as me, but mine. That is, the somatic self is not the primary and real self, but the child learns the several members as standing in a peculiar relation to its own ex-