

resembles the frambesia or yaws of the West Indies. The body swells and breaks out into ulcers, which have often the appearance of mulberries, and the patients become exceedingly loathsome. It is infectious by contact, but is also communicated, *according to the theory of the country*,² in a manner that defies all precaution. The eye sometimes is partially affected, and a small fly is then attracted by the discharge; this insect comes loaded with the contagious matter, and communicates it to the next person, on whose face he happens to light.

It will be noted that Walsh agrees with Koster's statement³ that the disease is transmitted by a certain "small fly from which every precaution is oftentimes of no avail" and that the eye is the part most likely to be affected.

An earlier account of this means of infection is found in J. G. Stedman's "Narrative of a Five Years' Expedition Against the Revolted Negroes of Surinam, in Guiana on the Wild Coast of South America," London, 1796. On page 274 of volume II. he writes:

The yaws, a most disagreeable disorder, by many compared to the venereal disease, renders the patient a shocking spectacle, all covered over with yellow ulcers. To this last mentioned loathsome malady most negroes are subject, yet but once only in their lives, in which, and in being very infectious, it resembles the small-pox: indeed, if a fly which has been feeding upon the diseased (and they are generally covered with them) lights upon the slightest scratch on a healthy person, it communicates this dreadful disorder, which always confines him for several months.

The earliest references to this disease which I have chanced upon are from William Piso. The first occurs under the heading *De Lue Venerea* on page 35 of his *De Medicina Brasiliensi* in "*Historia Naturalis Brasiliæ*," by William Piso and George Marcgrave. Under the heading *De Lue Indica* the same facts are given almost verbatim on page 43 of Book II., *De Natura & Cura Morborum, Occidentali Indiæ, imprimis Brasiliæ, familiarum*, in Piso's "*Historiæ Naturalis & Medicæ Indiæ*

Occidentalis," one of the component parts of "*De Indiæ Utriusque Re Naturali et Medica*," by William Piso and Jacob Bont. The first was published at Leyden and Amsterdam in 1648, the second at Amsterdam by the Elzevirs in 1658.

That part of the account of the disease which is of interest to the general reader translates as follows:

Concerning the Venereal (or Indian) Disease (or Plague). This is a disease which occurs not only in children as a result of inheritance from their parents, and is contracted not only by infection in sexual union, but even by lighter contact. It originates chiefly in fetid and decaying food, and in rancid and corrupt drink. It rages not only among Negroes and Indians, but also among Portuguese and Dutch. The whole body is infested with schirrhous tumors and virulent ulcers. This disease is indeed endemic in that region [Piso was writing of northern Brazil] and by both Spaniards and Brazilians is called *Bubas*.

Careful search failed to show any reference to insects as agents of transmission.

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A THEORY OF SEX DETERMINATION¹

MRS. LAURA A. CALHOUN, a woman of culture, who has had considerable experience in the breeding of animals in California, ventures on the strength of this experience and that of others to propose and develop a theory of the conditions determining sex.

Her main thesis is set forth in these words: "The sex of the embryo in man and the higher animals is determined in the ovary from which the ovum in question is developed. In the normal female, the ovary of the right side yields ova which on fertilization develop as males, and the ovary of the left side yields ova which are potentially female."

From this arises the practical deduction that sex can be determined at will, through the service of gravitation. For the prospective mother to lie on the right side should

¹"The Law of Sex-determination, and its Practical Application," by Laura A. Calhoun, The Eugenics Publishing Company, New York.

²Italics by the present writer.

³See "Note," etc., November 4, 1910.

ensure male offspring. To allow the spermatatic fluid to flow to the left side means female offspring.

Besides the main thesis, Mrs. Calhoun takes up the general subject of heredity, with quotations from leading authorities, matters likely to be interesting and helpful to those for whom the book is written, much of this being addressed especially to women. A new theory, called telegyny, is suggested, the effect of the first female on the male, a theory which is probably as well founded as its prototype, telegony, the supposed effect of the first male on the female, a scantily supported hypothesis, thus far lacking adequate verification.

Mrs. Calhoun writes in a frank, modest, friendly style, which disarms technical criticism. The present writer is not convinced that the theory in question is correct. But to say this is only to say that one of the central problems in biology still awaits a final decision.

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QUOTATIONS

THE ANTIVIVISECTIONISTS

BECAUSE a woman, crazy about cats, subsidized a lawyer and a press-agent for an indefinite length of time, the state of New York must face every year some bill aimed at scientific research. There are various organizations of this type, varying in the amount of absurdity and of harm. The Society for the Prevention of Cruelty to Animals has possibly put an end to its usefulness by swinging over to the antiexperiment camp. The act which has been introduced this year shows that the American societies, defeated again and again, have taken a lesson from England and are now asking for investigation instead of restriction. Pasteur and Koch could not have done their work as the British law stands to-day. Of course, investigation is a plausible term. As a matter of fact, what the opponents of scientific progress object to is experiments which are fully set forth in scientific publications. Investigation would be a mere form of sentimental agitation. The

scientists make no concealment of what they are doing. On the contrary, they give it all the publicity they can obtain. We can hardly believe that the present is a favorable moment for these dangerous sentimentalists to succeed. The death-rate from meningitis only two or three years ago was from seventy to eighty per cent. Now the rate, counting all cases, is twenty-five per cent., and in the cases where the serum is given early it runs as low as six to eight per cent. Among those cases which were called cured before the serum was discovered were the long-drawn-out and most painful ones which left imbecility or some frightful deformity. These cases now have absolutely disappeared. As this triumph over one of the most terrible and agonizing diseases, from which the principal sufferers are children, is so fresh in the mind of the public, it hardly seems possible that a backward step should be taken. Dr. Flexner and the Rockefeller Institute, in conquering meningitis, used twenty-five monkeys and about two hundred guinea-pigs and rabbits.

There is one dreadful and destructive disease which men hesitate to name. It struck down not only the guilty, but millions of innocent women and millions of innocent children. That disease has within a few months been mastered by a drug, the most perfect drug antidote in the world. The cost of conquering this disease was a few rabbits and a few mice.

Dr. Carrel, only a short time ago, perfected the delicate operation of transfusion of blood, which is now saving many lives. The cost here was a few kittens; the societies would much rather have had the kittens put into a bag and thrown into the river.

Infantile paralysis filled this country with terror a few months ago. The experiments which have taken place since then mean that this disease will be handled much better next summer, and there is every promise that before long it will be exterminated. Doubtless in the process a few animals will meet their death in the service of science, instead of in the ordinary form. There are a number of mice now suffering from cancer in order that