

actually present. I was guided to the operation solely by the presence of the distant tubular breathing and bronchophony of the quality I have attempted to describe.

It would be vain to claim an absolutely invariable significance for any group of physical signs found in the chest, but as far as my observations go these signs possess as constant a significance as can be predicated of any that we know. I have never failed to find abundant fluid in performing paracentesis where they were present; I can scarcely recall an instance in which an exploratory paracentesis yielded more than a few ounces of fluid unless they were to be heard. If these facts alone should be found to be of general application I shall, I think, need no further excuse for having invited a more systematic attention to the practice of direct auscultation than it obtains at present.

I am, Sirs, yours faithfully,

ISAMBARO OWEN, M.D. Cantab., F.R.C.P. Lond.
Sept. 29th, 1903.

THE TRANSMISSION OF YELLOW FEVER.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of August 1st, p. 345, in the letter of your special correspondent in New York, mention is made of me as one of the physicians who are not entirely in accord with the conclusion of the United States Army Yellow Fever Board of 1900 that "the female mosquito of the species *stegomyia fasciata* is the only and exclusive conveyor of yellow fever from one person to another." What I consider scientifically vulnerable points in the series of experiments carried on by the Yellow Fever Commission of 1900 in the island of Cuba are the following, some of which your correspondent has quoted. The house in which the experiments were made was an artificial house, under completely abnormal conditions never to be found in a living Cuban house. It was more in the nature of an autoclave than a dwelling-place. This house was not located in the city of Havana, as it should have been, but outside in the country, nine kilometres away to the south west, and at about four kilometres from the sea coast, where the recognised dangerous sea air could not reach it. There was not due care in the selection of the non-immune persons with whom the infection experiments were made, probably some already immunes to yellow fever being among them. These individuals experimented with did not remain all day in that house but only went in there to sleep after dark and early in the morning came out of the house and with changed clothes remained all the rest of the day in the open air in tents placed at a distance. I call this unsteadiness, this ebbing and flowing of the experiments, a sort of Penelope's work. Besides, it is a well-known physiological law that during sleep the human organism is at its minimum of energy and activity, the nearest to death. The time selected to try the infection experiments, therefore, was precisely when the organism of those experimented with was the least liable to contract the disease. In spite of all those favourable circumstances the statistics presented (44.4 per cent.) are not, in my opinion, sufficiently convincing.

A few facts which demonstrate that hygiene, sanitary reforms, isolation of the sick patients, the absence of the large number of poorly nourished, poorly clad, and generally neglected Spanish soldiers, and the immigration department and observation hospital in connexion with it established by the United States Government have been more powerful factors in the eradication of yellow fever from the island of Cuba than the mere protection of sick patients from the bites of mosquitoes, are the following. In the city of Havana alone mosquitoes have been killed and crude petroleum has been used in their breeding places to extirpate yellow fever. In no other city or town of the island has this measure been put into practice and yet yellow fever has disappeared not only from Havana but equally as well from Santiago, Matanzas, Cienfuegos, Cárdenas, Sagua, Manzanillo, Gibara, and all the other cities and towns of the island, no matter how great the distance from Havana. With the American occupation of Cuba from 140,000 to 160,000 Spanish soldiers went immediately out of it and were sent back to their native country. The large number of the Spanish Government civil employés who every month used to go to Cuba, all of them non-immunes to yellow fever, do not go now any more to that island. This immense amount of human flesh, which constituted before the fuel that kept burning the funeral pile of yellow fever victims, has completely been put out of the island. In consequence of the cleanliness, the sanitary reforms, the

considerably better hygiene public and private, and the prophylactic measures instituted by the United States Government in Cuba and continued by the present Cuban Government, not only yellow fever, but also small-pox, both of which diseases were there formerly epidemic, have been eradicated and the general death-rate in each and every city all over the island has considerably decreased. The newly established immigration department and its stringent laws have also greatly contributed to the eradication of yellow fever in Cuba.

I am, Sirs, yours faithfully,

A. M. FERNANDEZ DE YBARRA, B.A., M.D.,
Medical Biographer of Christopher Columbus.

New York, August 15th, 1903.

THE MEDICAL REGISTER.

To the Editors of THE LANCET.

SIRS,—In the interests of the profession may I ask you to be good enough to draw attention in your next issue to the importance to practitioners of keeping their addresses correct in the Medical Register. The chief points to which attention should be called are:—

1. The Register should not be confused with the Medical Directory as is so often done. Changes should be notified to this office by practitioners themselves and they should be careful to notice that a postcard is received in acknowledgment.

2. The present system is to send a circular of inquiry to one-third of the practitioners on the Register residing in the United Kingdom, from whom no communication has been received during the past 12 months, in each successive year during the period when there is no election of Direct Representatives. This year circulars were sent to practitioners from A to G inclusive and any person within those letters who has not received a circular should communicate with this office at once.

3. Anyone who is doubtful if his address is correct should inquire at the office without delay.

In past years you have kindly done your best to assist me in my efforts to save practitioners from the grave inconvenience of finding that their names do not appear on the Register because their whereabouts cannot be ascertained and I hope, therefore, that you will continue to give us the benefit of your valuable assistance in the matter.

I am, Sirs, yours faithfully,

H. E. ALLEN, Registrar.

229, Oxford-street, London, W., Oct. 2nd, 1903.

THE PREVENTION OF HORSE-DUNG IN THE STREETS.

To the Editors of THE LANCET.

SIRS,—With all the hygienic improvements hitherto effected no attention seems to have been paid to the prevention of the streets of towns from being contaminated by the dung of carriage horses. It is true that a great deal of money is expended in sweeping up the dung but it is never effectual, for part of the fluid and semi-fluid constituents adhere to the ground and by decomposing, especially in warm weather, diffuse an offensive smell through the whole atmosphere which people have to breathe, whether in the streets or in their own houses. Add to this the nuisance of clouds of dust, consisting to a great extent of fine particles of dried dung laden with an abundance of microbes of various kinds, blown about and taken into the mouth and lungs at every breath or eaten up with the provisions exposed for sale in the shops.

All this cannot be without injurious effects upon the health of the inhabitants of a town and it might even be the means of disseminating certain diseases in man as well as in animals. It is no less objectionable from an æsthetic point of view. It being therefore undeniable that the existing state of things is a great nuisance and is put up with simply because no effectual remedy had hitherto been proposed, I have tried for some time to solve this sanitary problem in a radical manner and think I have succeeded.

I have constructed a simple apparatus which I call "an automatic dung trap" for carriage horses which entirely prevents any of the droppings and even the urine from falling on the roads. I inclose a photograph of a horse and carriage to illustrate the apparatus as applied for actual use. On slightly magnifying the parts become very clear. It consists of a suitable receiver or dung trap fixed to some convenient