

tents were strongly alkaline, which would favor the development of bacteria, is it not exceedingly probable that this fowl had clogged her craw and set a great culture of bacteria developing there, till at length bacteria had gained admission to the oviduct through the blood and thus developed infected eggs?

This rather brief description in no wise pretends to explain this phenomenon. It has been given with a dual hope: First, that some bacteriologist whose experience has familiarized him with similar cases may give the desired explanation of how these bacteria, if they were bacteria, gained admission to these fresh eggs; second, that the attention of physicians and officers of boards of health may be attracted to this subject.

There is evidently as much necessity for caution in feeding hens as in feeding milk cows or in fattening beeves and swine. Chickens should not be fed all sorts of refuse matter and then be expected to return therefor good healthy eggs and meat. Yet we all know the universal practice in small cities and villages, where many of the market fowls and eggs are obtained, is to give over the office of scavenger to the feathered inhabitants. If the subject were properly regarded by physicians and the people were rightly educated, we might look for better things; till then the occurrence of such peculiar phenomena as the one related and even more unique, should not surprise scientific students.

A MALAY FIRE-SYRINGE.

BY F. W. RUDLER, MUSEUM OF GEOLOGY, LONDON, ENGLAND.

By the kindness of my friend Mr. Henry Louis, the well-known mining engineer, who has recently returned to England from Singapore, I have received a fire-syringe which he obtained towards the end of 1890 from a part of the Malay Peninsula never previously visited by a white man. So far as I can ascertain, the use of the fire-syringe has not been hitherto recorded from this locality. Mr. Walter Hough, in his admirable description of the fire-producing appliances in the United States National Museum, published in the Smithsonian Reports for 1888 and 1890, refers to the syringes of Borneo and Burma, but makes no reference to those of the Malay Peninsula. No syringe from this locality is to be found in the very extensive ethnographical collections in the British Museum. Moreover, Mr. A. R. Wallace does not know of its use by the Malays, nor is it known to Professor Terrien de Lacouperie, who has lately written on the production of fire by the Chinese in his *Babylonian and Oriental Record*.

Mr. Louis obtained the specimen in question from a Malay who stopped with a party of others at his camp on a small stream known as Ayer Katiah, one of the tributaries of the River Teluban, on the southeast coast of the Malay Peninsula, and about 100 miles from the mouth of the river. The district is sparsely inhabited by Malays, and the party from whom the syringe was obtained had come from some of the neighboring Kampongs. They squatted down and began smoking, one of the men lighting his cigarette in the most matter-of-fact way by means of his fire-syringe. There is no reason to suppose that he was singular or had imported his apparatus from a distance. If the rest of the party elicited sparks by means of quartz and iron it was, they admitted, simply because they preferred this method as being less troublesome and more trustworthy than that of compressing air.

The Malay syringe consists of a tube of hard wood 2½ inches long, closed at one end, towards which the tube slightly tapers. It is surrounded with neatly plaited strips of thin rattan which, while they ornament the object, serve also to strengthen it and prevent the wood from splitting longitudinally in the direction of the fibre. The piston is made of similar wood and is packed with string. The tinder was carried in the hollowed-out skin of a large bean, like the seed of *Entada*.

In order to use the instrument a small piece of dry tinder is placed in the slightly hollow end of the piston and pressed down to keep it well in place; the piston is then inserted in the cylinder, smitten sharply with the palm of the hand and very rapidly withdrawn, when the tinder becomes sufficiently heated to slightly smoulder, and by then gently blowing it a bright glow may be obtained. According to Mr. Louis, the native never

seemed to fail in his use of the syringe, but the knack is not easy to acquire, and those who have employed a similar apparatus for demonstration at physical lectures know that it is far from easy, even with a well-made instrument, to ensure success.

Contrary to what might have been expected, it was rather a young man who preferred this strange mode of producing fire to the more convenient flint-and-steel method. There can be no doubt that the use of the fire-syringe, never widely spread, is rapidly dying out, and hence every fact bearing on the geographical distribution of so curious a custom deserves to be put on record.

L'ORIGINE DES ARYENS.

PAR LE PROF. G. DE LAPOUGE, UNIVERSITÉ DE MONTPELLIER, FRANCE.

LES revues scientifiques et *Science* en particulier ont publié cette année une quantité d'articles qui avaient la prétention d'éclaircir la question aryenne, mais qui me paraissent avoir surtout produit le résultat inverse. Il me semble que l'obscurité vient surtout de ce qu'on ne s'entend pas sur la valeur de mots qui, détournés de leur signification primitive, sont maintenant bien près de n'en avoir aucune, tant elle devient vague. Partisan très actif de l'origine européenne et occidentale de la race blonde et de son identification avec les premiers auteurs de la culture aryenne, j'ai contribué sans le vouloir à créer cette équivoque. Je voudrais arriver à la dissiper.

Le titre d'Aryens est historiquement applicable aux Indo-Iraniens seuls. Ceux-ci étaient loin de former la partie la plus pure, au double point de vue morphologique et sociologique, de la race que nous appelons aryenne. C'est pourquoi je crois préférable de laisser le terme d'Aryen à l'histoire et à l'ethnographie, et de lui conserver son sens strict, plutôt que de continuer à l'étendre comme on l'a fait, d'abord en philologie d'un sous-groupe à un groupe entier de populations parlant des langues apparentées et pratiquant des coutumes analogues, et ensuite en anthropologie à la race qui paraît avoir joué chez ces peuples le rôle de ferment. En regardant comme démontré ce qui est encore discuté, à savoir que les langues et les idées aryennes sont nées dans une tribu ou dominait la race blonde et sous l'influence de son génie propre, faire remonter d'une partie des peuples conquis au premier noyau des conquérants un nom ethnique plus récent d'un nombre considérable de siècles, c'est à peu près comme si l'on voulait dans dix mille ans appeler les Français d'aujourd'hui Dahoméens, parce que l'Afrique serait en grande partie devenue, c'est une pure hypothèse, française de mœurs et d'institutions.

Il conviendrait de s'entendre pour adopter désormais dans le langage précis la terminologie suivante: Aryens, les Indo-Iraniens primitifs; langues aryennes, institutions aryennes, les langues et les institutions de ces peuples et de leurs descendants immédiats; Indo-Européens, les peuples, d'origine quelconque, qui ont fait usage de ces langues, et de ces institutions, mais à partir seulement du moment où cet usage a commencé chez eux. La terminologie ainsi rétablie, on arrive à s'apercevoir que le problème aryen n'existe pas et qu'il y avait simplement logomachie. On se trouve en face des questions suivantes, aux quelles il est plus facile de répondre dès que l'esprit n'est plus tirailé par les acceptions multiples et discordantes des termes.

Quel a été le berceau des langues et des institutions indo-européennes? Question d'histoire et de philologie, à laquelle on est actuellement porté à répondre: l'Europe.

Ces langues et ces institutions paraissent elles avoir été particulièrement propres à certains peuples caractérisés par la prédominance d'une race, et laquelle? Autre question d'histoire et de philologie à laquelle on est obligé de répondre: oui, la race dolichocéphale blonde. En effet il n'y a pas de peuple ou cette race domine qui fasse usage de langues ou d'institutions non-aryennes, tandis que les peuples ou cette race ne domine pas font en partie usage de langues ou d'institutions d'un autre groupe, en ont fait usage à une époque historique rapprochée (partie de la Russie et de l'Allemagne), ou paraissent en avoir fait usage dans l'antiquité (Gaule, Espagne).

L'évolution qui a produit ces langues et ces institutions a t'elle eu pour point de départ un peuple ou la race blonde avait la