

Malpighi first saw capillaries in the frog's lung or in the frog's bladder—probably it was the latter. Although, of course, he was not the first to practise injection methods, we may note that Malpighi traced the course of the vessels by (a) inflating them; (b) injecting mercury; (c) injecting coloured fluids. Both Sir Michael Foster and your correspondent appear to have overlooked the fact that the expression "Magnum certum opus oculis video" is not Malpighi's, but a translation from Homer, and is intended, I imagine, to be translated after the Malpighian manner as: "I see with my eyes a truly great work."

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University College, Reading, July 4.

ARISING out of the letter on the above subject in NATURE of June 29, by Dr. D. Fraser Harris, is the true date of the momentous discovery of what is the oxygen carrier of the blood. This discovery is put down to Sir G. G. Stokes, and the date some years later than 1862.

I wish to direct attention to a fact hitherto overlooked, namely, that Dr. John Roberts, of Plas Eryr, Clwydbont, Carnarvonshire, was the first to say (and to publish it) that the colouring matter of the blood (hæmoglobin) was the oxygen carrier. This can be verified by perusal of his thesis (for M.D. Edin., published in 1860, and now lying in the archives of Edinburgh University) on "Pigment."

Dr. Roberts is still alive and well.

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THE FUR-SEAL QUESTION.

FOR some time past a conference has been sitting in Washington, in which representatives from Great Britain, or rather Canada, Russia, Japan, and the United States, have taken part, for the purpose of drawing up new regulations for the conduct of the Bering Sea seal fishery, and for the protection and restoration of the herd. *The Times* of June 28 contained an account of the findings of the conference, and in the issue of July 8 its correspondent at Washington reports that the new convention was signed on July 7. The full text of the agreement has not yet come to hand, but its main provisions, which are of great international importance, and of great interest to all naturalists, are said to be as follows. Pelagic sealing will be totally prohibited to all subjects of the participating countries for fifteen years, and measures will be taken to induce other countries to prevent its being carried on under cover of their flag; the United States and Russia, which own practically all that remain of the seal herds of the North Pacific, will pledge 30 per cent. of their catches for the purpose of paying a specified yearly dole to Canada and Japan to compensate them for abstention from the fishery, and the United States (it is said) will advance 40,000*l.* to each of the latter countries for the immediate compensation of persons engaged in the industry; the contracting Powers will admit no skins to their ports the origin of which is not properly certified; and, lastly, regulations are laid down as to the method of killing seals on land, and as to the establishment of guards upon the rookeries. These resolutions are, we suppose, still subject to ratification by the several Governments, but nevertheless we have good reason to believe, and every reason to hope, that the wise and liberal proposals thus stated may soon be adopted and carried into effect. The Washington correspondent of *The Times* reports that, so far as can be gathered, the convention will be accepted by the Senate. It will come into force on December 15.

The Bering Sea Arbitration of 1893 was an affair of such international magnitude that it is far from being forgotten. It is unnecessary and impossible to enter here into a review of that great debate, of all the causes that led to it, or of the minor questions

that arose for a few years after its close. We may simply remind our readers that its chief result was the delimitation of a zone of sixty miles around the Pribylov Islands, within which zone pelagic sealing was prohibited during the season when the herd were living and breeding upon the islands, while at the same time the use of firearms was entirely prohibited to the pelagic sealers. A few years later pelagic sealing was entirely prohibited, both by America and Russia, in the case of their own subjects. But while it is impossible to enter here into either diplomatic or commercial history, a few words upon the general aspect of the case, and especially upon the natural history of the fur seals, may be of interest at the present moment.

The true fur seals, forming the old genus *Otaria* (now broken up into subgenera), belong to the more extensive family of the Otariidæ, or eared seals, the various members of which differ considerably in their habits. For example, Steller's sea-lion (*Eumetopias*), a large, ungainly animal, is sparsely distributed on a multitude of coasts and islands around the North Pacific; while, on the other hand, it is characteristic of the fur seals, throughout the whole area of their distribution in the Pacific and Southern Oceans, to resort to but few local breeding-places, where, in prosperous times, they congregate in great multitudes. Naturalists are not quite agreed as to the number of species of these fur seals, but the best-known breeding-places are, or have been (besides those in the Bering Sea), Robben Island at the Cape of Good Hope, the Auckland Islands, the Falklands, South Georgia and many other islands in the Southern Ocean, Lobos Island, at the mouth of the River Plate, Guadalupe, off southern California, and the Galapagos. In the Northern Pacific by far the greatest of the rookeries are those of the Pribylov Islands, St. Paul and St. George; next in order come those of the Russian Commander Islands, Bering and Copper Islands; while in the Sea of Okhotsk there is still a small rookery on Robben Island (now ceded to Japan), and on the Kuriles a number of rookeries were formerly known but are now either extinct or very nearly so. Dr. Jordan and his American colleagues ascribe specific differences even to the seals of these comparatively neighbouring breeding-grounds, and it is highly probable, if not certain, that the Pribylov seals from the eastern part of the Bering Sea, and the Commander Island seals from its western part, form absolutely separate communities, the long southward migrations of which in winter time follow different routes, the one towards the shores of British Columbia and the other towards those of northern Japan. For an unknown period, but probably for centuries, they have been exposed to attack by expert native fishermen, spearing them at sea in the course of these winter wanderings.

During the greater part of last century the history of the seal herds, of all species and in all their various haunts, is a long record of pillage and extermination; and nowadays the extent to which they have been reduced may be measured by the simple fact that a sealskin coat is a thing we very seldom see. In a comparatively few cases, especially on the American and Russian Islands and the Uruguayan Lobos Island, the herds have long been placed under proper control while on their breeding-grounds; and, so far as we are aware, the Lobos rookery, though small (for the island is less than a mile long), and though right in the track of commerce and close to a considerable town, is still maintained in comparative prosperity. But though on the Pribylov and Commander Islands the remains of the once immense herds are still considerable, yet they represent but a