

Touching the old, little need be said. Every man who has filled one of the above posts worthily while he had force to work ought to be pensioned when he gets old. The matter lies in a nutshell and needs no more words. But there will always be a few old men who for their eminence and their services would require special provision, and that not so much on their own account as for the sake of the younger men of their time. There ought to be some *rewards* for a scientific life, but they should be few and very carefully allotted. At all times, moreover, there will be a few, a very few men whose genius ought to receive plenteous and present recognition. Such men with the older distinguished men might form a small consulting body whose services in the way of advice would be at the command of Government, and the members of which would draw salaries on a scale feebly imitative of those of other Government officials. I believe the legal advisers of Government are pretty well paid, and yet scientific advice is altogether unrewarded. Such men would be then at liberty to work out their ideas; the best means being, of course, taken to choose those men only into whose soul the iron of science has entered, men whom it is impossible to keep from work.

Two more remarks and I have done. It may be objected that this scheme would make scientific success in large measure dependent on the power of teaching, and that original work would thereby go to the wall. I reply that that is altogether a fallacy, and if I had time I could show it.

Lastly, the question of expense of apparatus and other means of inquiry is altogether a secondary one. Government ought of course largely to provide these; but there would be no difficulty in distributing them on a plan similar to that of the grant to the Royal Society. It is the question of "scientific careers" that is the pressing one, and the one most difficult to settle.

IN SICCO

Tails of Comets

In NATURE of 16th December, Prof. Tait advances the opinion that the tail of a comet consists of nothing but meteorites; mentioning in proof of this that the orbits of the August and November meteors have been determined, and found to be identical with those of two known comets. I do not question the importance of this most remarkable fact, but I think the older opinion, that the tail of a comet is gaseous, is demonstrably true. Sir John Herschel, in his "Elements of Astronomy," remarks with wonder how the tail, in the comet's perihelion passage, is *whisked round* in apparent defiance of the law of inertia, so as always to keep pointing away from the sun. Were the comet an assemblage of meteorites this would be impossible; the tail would, in that case, always lie parallel to the direction of the comet's orbit. The fact just mentioned as to the perihelion motion of the tail is, to my mind, a conclusive proof that the tail is not formed once for all, but is a cloud which is constantly in process of formation, and as constantly evaporated. This view is supported by the fact that Halley's Comet was seen to increase in apparent magnitude as it receded from the sun, in consequence, as was suggested, of the conversion of invisible vapour into visible cloud as the heat grew less intense.

Dr. Tyndall's suggestion, that the tail may be a cloud produced by actinic precipitation from an invisible atmosphere is, to my mind, the only plausible suggestion yet made on the subject.

JOSEPH JOHN MURPHY

Old Forge, Dummurry, Co. Antrim, May 4

Left-Handedness

In reference to the letters which lately appeared in your periodical on "Right and Left-handedness," I beg to draw your attention to some remarks of Professor Hyrtl, the celebrated anatomist of Vienna, which were published several years ago, and the substance of which I now quote from the 4th edition of his "Handbuch der topographischen Anatomie," 2 vol. 1860.

"It happens in the proportion of about two in a hundred cases that the left subclavian artery has its origin *before* the right, and in these cases left-handedness exists, as it also often actually does in the case of complete transposition of the internal organs (Professor Hyrtl describes two cases), and it is found that the proportion of left-handed to right-handed persons is also about 2 to 100. Professor Hyrtl thinks that ordinarily the blood is sent into the right subclavian under a greater pressure than into the left, on ac-

count of the relative position of these vessels, that in consequence of the greater supply of blood the muscles are better nourished and stronger, and that therefore the right extremity is more used. In cases of anomalous origin of the left subclavian, &c., the reverse occurs, and therefore the left hand is employed in preference.

Kensington, May 3

ADOLF BERNHARD MEYER

Strange Noises heard at Sea off Grey Town

IN submitting the following to the notice of your readers, I am guided only by the desire of seeking a solution of what to me and to many others appears a very curious phenomenon. The facts related can be vouched for by numbers of the officers and crews of any of the R. M. Company's ships.

I must premise that this phenomenon only takes place with iron vessels, and then only when at anchor off the port of Grey Town. At least, I have never heard of its occurring elsewhere, and I have made many inquiries.

Grey Town is a small place, containing but few inhabitants, situated at the mouth of the river St. Juan, which separates Nicaragua from Costa Rica, and empties itself into the Atlantic, lat. $10^{\circ} 54' N.$, and long. $83^{\circ} 41' W.$ In this town there are no belfries or factories of any kind.

Owing to a shallow bar, vessels cannot enter the harbour or river, and are therefore obliged to anchor in from seven to eight fathoms of water, about two miles from the beach, the bottom consisting of a heavy dark sand and mud containing much vegetable matter brought down by the river. Now, while at anchor in this situation, we hear, commencing with a marvellous punctuality at about midnight, a peculiar metallic vibratory sound, of sufficient loudness to awaken a great majority of the ship's crew, however tired they may be after a hard day's work. This sound continues for about two hours with but one or two very short intervals. It was first noticed some few years ago in the iron-built vessels *Wye*, *Tyne*, *Eider*, and *Danube*. It has never been heard on board the coppered-wooden vessels *Trent*, *Thames*, *Tamar*, or *Solent*. These were steamers formerly employed on the branch of the Company's Intercolonial service, and when any of their officers or crew told of the wonderful music heard on board at Grey Town, it was generally treated as "a yarn" or hoax. Well, for the last two years the company's large Transatlantic ships have called at Grey Town, and remained there on such occasions for from five to six days. We have thus all had ample opportunity of hearing for ourselves. When first heard by the negro sailors they were more frightened than astonished, and they at once gave way to superstitious fears of ghosts and Obeihism. By English sailors it was considered to be caused by the trumpet fish, or what they called such (certainly not the *Centriscus scolopax*, which does not even exist here). They invented a fish to account for it. But if caused by any kind of fish, why only at one place, and why only at certain hours of the night? Everything on board is as still from two to four, as from twelve to two o'clock, yet the sound is heard between twelve and two, but not between two and four. The ship is undoubtedly one of the principal instruments in its production. She is in fact for the time being converted into a great musical sounding board.

It is by no means easy to describe this sound, and each listener gives a somewhat different account of it.

It is musical, metallic, with a certain cadence, and a one-two-three time tendency of beat. It is heard most distinctly over open hatchways, over the engine-room, through the coal-shoots, and close round the outside of the ship. It cannot be fixed at any one place, always appearing to recede from the observer. On applying the ear to the side of an open bunker, one fancies that it is proceeding from the very bottom of the hold.

Very different were the comparisons made by the different listeners. The blowing of a conch shell by fishermen at a distance, a shell held to the ear, an æolian harp, the whirr or buzzing sound of wheel machinery in rapid motion, the vibration of a large bell when the first and louder part of the sound has ceased, the echo of chimes in the belfry, the ricocheting of a stone on ice, the wind blowing over telegraph wires, have all been assigned as bearing a more or less close resemblance; it is louder on the second than the first, and reaches its acme on the third night; calm weather and smooth water favour its development. The rippling of the water alongside and the breaking of the surf on the shore are heard quite distinct from it.