of the Inspector agreed with the proper standard weights in the hands of the Government. Some time ago a circular was sent to certain persons in Wellington asking them to state the price at which they would furnish the Government with iron ingots. The respective weights required were specified, and it was also stated that the ingots had to have handles by which they could be lifted. One tender, sent in by a person of thoroughly good character, gave a price which amounted to a few pence per pound. His tender was at once accepted, with a condition, "Please let them be accurate." He replied that that was not exactly what he tendered for—that in the iron trade an inaccuracy of 4 or 5 per cent. in the weight of ingots was not thought to be worth considering, and that the ingots might be from a fraction of an ounce to several ounces out, according to their size. The conditions of contract were amended so as to require that the ingots should be accurate in weight, and a few pence per pound was added to the amount of the tender. The ingots were cast at a foundry, and they were weighed on the machine on which all metal arriving at the factory was weighed. They were passed by the gentleman who was appointed to pass them. The Government, however, then wrote to say that the "standard weights" which had been sent in had been found to be inaccurate. Previously they had used the word "ingots" These "standard weights" were accordingly adjusted, some by being planed down and others by being plastered up. And that was how the standard weights used by Inspectors were made. So it would be seen that an Act of Parliament might be perfect, and the standard-weights obtained from England might be perfect, but if the manner in which the Act was worked was not perfect there would be inaccuracies as to weights and measures.

Mr. R. C. Harding said the weights in use in the post-offices apparently needed to be brought into uniformity, as he had known several cases where parcels which had been weighed and passed as correct in the office where they were posted had been surcharged and fined at the office of delivery.

3. "On the Vapour Densities of the Fatty Acids," by Professor Easterfield and P. W. Robertson. (*Transactions*, p. 499.) This paper, read at a previous meeting, was discussed.

Sir James Hector said the discovery was of great importance, and showed how admirably the professor was leading his students in original research. He deplored the lack of proper apparatus and appliances in the University for the prosecution of valuable work of this kind.

Mr. Tregear spoke of the hopeful prospects of the Philosophical Society. For years, as the pioneers fell out of the ranks, they had deplored the lack of younger men to fill the gaps. Now all this was changed. Young men of the greatest promise——

A Member: And young women too.

Mr. Tregear said, Yes, young women too—were taking a prominent place in the scientific field. He congratulated the professor and students on the energetic work—work of permanent value—they had already accomplished. We need have no fears as to the future of the Society.

4. "Natural-history Notes from Dusky Sound," by Richard Henry.

ABSTRACT.

1. *Pilchards.*—In reading back numbers of the Transactions I notice an account of the Picton herring which says that they remain in Queen Charlotte Sound all the year round, which implies that they must get their food there; and when they have no teeth their food must be small and soft; and when they flourish it implies that some

combination of circumstances relieves them from any very destructive enemies. I have seen pilchards in many places, and always wondered at their immense numbers and where they came from, for wherever I have seen them they seem to have thousands of enemies who could easily catch them. I dipped a baker's basket in the sea off Queenscliffe and got it half-full of pilchards, while the air was alive with birds and the water thick with porpoises and all sorts of fish following them. Surely they must have some peaceful places to breed in or they could not spare such losses without extinction. Cook Strait may be one of those. They represent the Home herring, and the herring is an old acquaintance of the salmon; therefore if the salmon have not been tried in Queen Charlotte Sound it might be a good plan to try some when you have the salmon, for they might meet with some favourable conditions that we do not understand. I have not seen pilchards on this southern coast, where we put most of the salmon, but Mr. Sutherland says that they come into Milford. It might also be a good plan to try a few salmon on this west coast if they never have been tried there, for there is great variety of conditions between such rivers as the Hollyford and those coming into the heads of the sounds. The temperature may be of great importance to give the young ones a start; and though there is a warm current coming down the coast the heads of the sounds are often frozen in winter. I think that owing to the quantity of food that sometimes comes in it is far the best coast for fish; but the rain brings a colouring matter out of the bush that darkens the water, and I think the fish do not like it, because it is only when the water clears that the shoals of migratory fish come in. However, this dark water is always much colder than the clear sea water, and that may be why the fish dislike it.

2. *Vegetable Caterpillar.*—I exhibit an aweto or vegetable caterpillar in a tube. Sometimes live ones are plentiful here in the spring about the roots of the *Veronica* hedges, but they do not appear to grow fungi every year, for lately I cannot find one in that state, though the first years we were here they were plentiful, yet we saw no live ones. The one I exhibit is a fine big one, and was very lively when I got it, so I put it in the tube. I exhibit it now to show how fond it must be of growing fungi when it will grow it in a spirit-jar. When the fungus starts to grow in the ground it seems as if the caterpillar had laid itself out for it, for it often forms a cavity around its head as if to accommodate the fungus, and I would not wonder if they are friendly relations instead of enemies. If they ever do turn into moths it is curious that I have not seen any of them when I can see all the others so readily. I do not know what caterpillar the moth breeds from. I have tried to nurse the live caterpillars into moths, but they take so long that I have never succeeded. They have grown fungus several times, until I began to think that that was the destiny of all of them, but I cannot see how the fungus could lay caterpillars' eggs.

Sir James Hector remarked that the "Picton herring" spawned from twenty to thirty miles off the coast of New South Wales. It was a true pilchard; it was not a herring. There was no herring in these waters. It would be a valuable achievement if the herring could be introduced.

Mr. H. N. McLeod said he saw the fish in question at Picton a week ago. They were in such numbers that they made the water phosphorescent as far as the eye could reach.

Sir James Hector said the fish had put in an early appearance. There were no fish in these seas which deposited their eggs, as the herring did, at the bottom of the sea. The reason, he thought, was the absence of such natural banks as extended from England to Denmark, and the acclimatisation of the herring, desirable as it was, would probably on this account be a matter of great difficulty.