

children by means of certain testing cards, and to record the results. Sir Charles Elliott, who has taken great interest in the examinations, has appended an explanatory note to the return which has been made.

The manner in which the eyesight test was conducted, he states, was to hang up on the wall of the school, in a good light, the test card for distant vision and to mark on the floor a line at a distance of 20 feet from the wall. At this distance the children were required to read certain lines of letters. It appears, from a summary of the results, that of 338,920 children tested, 259,523, or 76.6 per cent., were found to have good sight, and 79,167, or 23.3 per cent., defective vision. The large number of 2675 children were only able to see the enormous top letter of the test card at a distance of 20 feet—a letter which is meant to be read at a distance of about 200 feet. The 79,167 children were given notices to their parents that they were suffering from 'serious defective vision' and advised to consult an oculist without delay. Taking the figures in the tables by School Board divisions it is seen that by far the largest percentage of defective vision is found in the city, where only 56.6 per cent. of the children have good sight. The other divisions where sight is below the average are Westminster (where the percentage of those having good sight is 67.7), Hackney (73.0), Tower Hamlets (74.0), Finsbury (74.3), and Southwark (74.9). Those in which the eyesight are above the average are Greenwich (which has a percentage of 82.2 having good sight), East Lambeth (78.7), West Lambeth (78.9), Chelsea (77.3), and Marylebone (77.1). In these latter divisions the houses are less dense and there are larger open spaces than elsewhere.

The figures, therefore, as far as they go, seem to bear out the hypothesis of 'town vision' expounded by Mr. Brudenell Carter in 1895, or, in other words, it points to the injury to the sight being caused by living in thickly-populated areas, where the eye has little opportunity of being exercised in distant vision. Another curious result of the test is that the proportion of good sight increases as the children rise in the different standards, which

broadly coincide with the ages of the children. The percentage of good vision in Standard I. is 70.8; in II., 74.9; in III., 77.0; in IV., 78.9; in V., 80.3; in VI., 81.3; in VII., 82.9; and in ex-VII., 83.7. So that without a single break the ratio rises with the standard as the age of the children increases. But it may be doubted whether this means an increase in the power to see or only in accuracy of reading. Sir Charles Elliott expresses the belief that the recorded rise is contrary to general medical experience, and throws some doubt on the value of the whole statistics. Mr. Bland, of the Royal London Ophthalmic Hospital, he says, suggests the explanation that the bad results are partly due to weak power of reading rather than weak sight. "The trained eye is better able to discern letters than the untrained eye, and it is probable that the children in the higher standards achieved better results partly on account of their training."

The eyesight of girls appears to be inferior to that of boys, and Mr. Carter, in the inquiry made by him, seems to have arrived at similar results and to be inclined to account for them by the strain of needlework on the eyes of girls. Professor W. Smith, in a note appended to the Board's return, states that he had seen Mr. E. Clark, surgeon to the London Ophthalmic Hospital, in connection with the results, and they agreed that a similar return should be made of the available figures for near vision; that the figures were most interesting and valuable as giving the first experience on a large scale of the extent of defect of vision amongst children of school age; and that the figures showed that rather more than a fourth of the children suffered from defective vision. The London School Board proposes to repeat the test, year by year, in order to secure a correct record being kept of the progressive improvement, or the reverse, in the children's power of distant vision.

PROTECTION OF WILD ANIMALS IN AFRICA.

THE *London Times* has received the following letter, dated May 10th, from a correspondent at Beira, East Africa:

I venture to bring before your notice the pressing danger that before long the districts

which lie behind Beira, and which formerly teemed with game, will be denuded of all game through indiscriminate shooting. When the railway was commenced between Beira and Umtali buffalo existed in vast herds, and hartebeeste, wildebeeste, sable antelope, eland, and many other antelope existed in profusion. The railway is now completed and is simply a line running through the veldt, and would not of itself interfere with the game. At present there is but little game close to the line, but game of all sorts still exists in great but much diminished numbers some few miles away. The reasons for the disappearance of the game are as follows:—

1. The shooting of game for food by the *employés* of the line and the reprehensible practice of shooting for mere slaughter or for horns. In so far as shooting for the pot is concerned this is legitimate, as fresh meat cannot otherwise be obtained. Unfortunately the use of the .303 rifle is harmful, as animals are more frequently wounded by this rifle than killed, and go off into the veldt to die. Even with the soft-nosed or Jeffrey split bullet the shock is not severe enough to always bring the animal down and therefore this rifle compares unfavorably with the old Martini-Henry. The magazine .303 is simply a temptation to slaughter. During the past two years there have been a large number of *employés*, and the canteens have been pushed for food. It is the practice of canteen keepers at Bamboo Creek, which is in the center of the game district, to send not only white hunters but also natives to shoot; obviously the result is disastrous.

2. The advent of numerous hunting parties in the season, which extends from about June to December, during the early part of which many of the antelope are in young. These parties without exception go in for indiscriminate slaughter, and if allowed to continue will denude the whole country of game.

3. The rinderpest, which visited this country in 1898, killed off thousands of the buffalo, and nearly exterminated the eland and sable antelope.

The district in question is not cultivated and can only be of use as a hunting district. I have reason to believe that if properly approached,

the Mozambique Company would be willing to establish a close season, or even close down the shooting for four or five years. There has now been established in Beira a cold storage company which will shortly commence operations, and thus every one on the line will obtain meat. Also after this year, the contract for the railway having been completed, there will be a far smaller population requiring meat.

Last year, owing to a very prolonged rainy season and the disturbed state of South Africa, there were very few hunting parties, and this year there will be practically none, owing to the war, so that the game have now a chance of increasing in number; but unless another five years of close time are allowed, followed by a rational system of close seasons, they will have but a small chance of getting up to the number they were at only three years ago. This applies especially to the buffalo, eland and sable antelope.

I would suggest that the hunting parties be strictly supervised and limited to a small number of heads; also that a long close season be established, and that buffalo, eland, and sable antelope be made Royal game for some years to come; also that natives be prevented from shooting.

I have reason to believe that the Mozambique Company would not object to employ game-keepers, but there is no hope of the company ever doing anything on their own initiative.

This part is one of the few accessible spots where the larger kind of antelope can be found and it is more than a pity to see these beautiful animals slaughtered as they are now. In the interest of true sport the indiscriminate shooting of the past three years should be stopped. The months November and December should be the only months in which shooting is allowed. The grass having been burnt off there is less likelihood of wounding instead of killing, and by this time all the young have been dropped.

SCIENTIFIC NOTES AND NEWS.

WE wish to call special attention to the letter from Dr. Richard Rathbun, on the International Catalogue of Scientific Literature published