

Cat's Toes

AT the village of Cookham-Dean, near Maidenhead, there is a race of cats having more than their normal complement of toes. They generally have six toes on the fore feet, and the usual number on the hind feet; but I saw two individuals which had six toes on each foot, and others which had seven toes on the fore feet, and either five or six on the hind feet. The stock, as far as I can learn from the not over-bright natives, appears to have originated about seven or eight years ago in the person of a "Tom" having six toes on each of its feet. I should think there are now a score or more living in the village.

Harpندن, Sept. 19

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NEW INSTRUMENT FOR THE PRODUCTION OF OZONE

IN the *American Journal of Science and Arts* for July 1872, Prof. A. W. Wright, of Yale College, describes a simple apparatus for the production of ozone with electricity of high tension, and intended for use with the Holtz electrical machine. "The apparatus consists of a straight glass tube about 20 centimetres long and having an internal diameter of 2.5 centimetres, the two ends being stopped with corks covered on the inner side with a thin coating of cement to protect them from the action of the ozone. Through the axis of each cork is inserted a glass tube of about 5 millimetres calibre, and 7 centimetres in length, having a branch tube inserted perpendicularly at the middle, and long enough to permit a rubber tube to be slipped upon it. The outer ends of the tubes themselves are closely stopped with corks, through which are passed straight thick copper wires carrying suitable terminals at their inner ends, and bent into a ring at the others. They are fitted so as to make tight joints, but to allow of motion in order to vary the distance between their inner ends. One of these wires carries a small ball, the other terminates in a disc with rounded edge, set perpendicularly to the axis of the tube, and so large as to leave an annular space of some two or three millimetres breadth around it. The gas is admitted through one of the branch tubes, and escapes from the other after having passed through the whole length of the tube.

"In using the apparatus the wires must be connected with the poles of the machine in such a manner that the disc becomes the negative terminal, as this arrangement gives the greatest degree of expansion and diffusiveness to the current. On turning the machine, and adjusting the ball and disc to a proper distance, a nebulous aigrette surrounds the latter, quite filling the interval between it and the wall of the tube, while the part of the tube between the disc and ball is crowded with innumerable hazy streams converging upon the positive pole, or simply causing the latter to be covered with a faint glow. A current of air or oxygen sent into the tube must pass through this, and ozone is very rapidly produced, and in great quantity. The condensers are of course not used with the machine, when this apparatus is employed.

"The great quantity of the ozone, as well as the ease and rapidity with which it is produced, render the apparatus especially serviceable for use in the lecture-room."

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

IF a good start in life is as serviceable for a society as for an individual, the French Association for the Advancement of Science must be considered as highly fortunate. There has already appeared in NATURE a short account of its first meeting at Bordeaux, and of

the papers read there; but the impressions of one of its invited guests may not be altogether without value or interest.

Confessedly the French was framed on the model of the British Association, and doubtless there was wisdom in that; but our friends across the Channel showed their wisdom also in making no servile copy, but endeavouring to modify our plans, so as to suit their national character or special requirements. The reception-room, the card of admission with a map of the town on the back, the various sections in the morning, the discourses in the evening, the municipal hospitality, all reminded us strongly of our own meetings; yet there were some differences that could not fail to strike an English visitor.

In the first place, it was not so popular an assembly. This arose partly from its constitution. There are two kinds of membership; there are the foundation members, who have qualified by taking one or more shares of 500 francs each, and subscribers who pay 20 francs for the meeting or a life composition. By enrolling these members a large society was created with a large capital before ever the first place of meeting was named. And very quickly was this accomplished; for it was only about Midsummer of last year that M. Friedel talked with M. Wurtz as to the best means of extending knowledge through the departments of France, and it was only last Midwinter that the project was nearly shipwrecked by the sudden and lamentable death of M. Combes, in whose rooms the first meeting had been held, and who had been named the provisional president; yet by the aid of large-hearted friends, such as M. D'Eichthal and M. Menier ("Chocolat-Menier"), the promoters of the movement were able to announce in April a sufficient capital to start with, and before the meeting at Bordeaux the Association numbered 700 members, and possessed 140,000fr.

No provision had been made for ladies' tickets, so when the meeting opened there was a sombre uniformity of black coats. But the English visitors brought ladies with them; there was a learned lady, who was believed to be writing for the press, and another, Madame Hureau de Villeneuve, followed her husband's paper on the Steam-engine by reading one of her own on the Flight of Birds. Encouraged by these, several other ladies made their appearance, and brightened the later meetings.

The accommodation afforded by Bordeaux was singularly good. The brilliant concert-room of the great theatre (which is historically interesting from the National Assembly having been convened in it during the German war) was given as the reception-room; and all the meetings were held in the Ecole Professionnelle, a large building just erected in a very substantial manner by the Philomathic Society, with funds bequeathed for the purpose. This new edifice contains a large lecture-room, which served well for the general meetings, and no end of good class-rooms, which accommodated the eleven sections into which the Association was divided. It is intended for the instruction of the working classes of the neighbourhood in the natural sciences, modern languages, drawing, &c., and so the sittings of the large scientific body were a good inauguration of its future work.

The great subdivision of the sections naturally gave rise to but small audiences in each. As far as I could judge, the chemists and the anthropologists were in greatest force; few naturalists or geologists of eminence were present. The sectional proceedings had more the character of a sitting of one of our learned societies than of a morning gathering at the British Association; but besides a couple of hours thus devoted to more abstruse points of science, there was an afternoon sitting at which subjects of more general interest were brought forward. This came intermediate in character, as in time, between the morning sections and the evening discourses; and it is a fair matter for consideration whether it might not be advantageously copied by us.