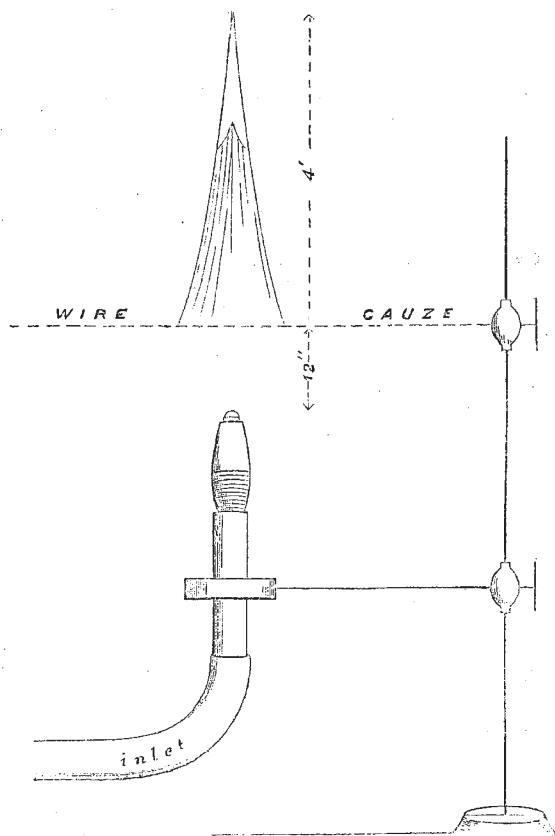


A NEW FORM OF SENSITIVE FLAME

MR. PHILIP BARRY, of Cork, has sent the following account of a new and very beautiful sensitive flame to Prof. Tyndall:—"It is in my experience the most sensitive of all sensitive flames, though from its smaller size is not so striking as your vowel flame. It possesses the advantage that the ordinary pressure in the gas mains is quite sufficient to develop it. The method of producing it consists in igniting the gas (ordinary coal gas) not at the burner but some inches above it, by interposing between the burner and the flame a piece of wire gauze.

"With a pressure of $\frac{1}{10}$ ths at the burner, I give a sketch of the arrangement I adopted, the space between burner and gauze being two inches. The gauze was about seven



inches square, resting on the ring of the retort-stand—ordinary window-blind wire-gauze 32 meshes to the lineal inch. The burner was Sugg's steatite pin-hole burner, the same as used for vowel flame.

"The flame is a slender cone about four inches high, the upper portion giving a bright yellow light, the base being a non-luminous blue flame. At the least noise this flame roars, sinking down to the surface of the gauze, becoming at the same time almost invisible. It is very active in its responses, and being rather a noisy flame, its sympathy is apparent to the ear as well as the eye.

"To the vowel sounds it does not appear to answer so discriminately as the vowel flame. It is extremely sensitive to A, very slightly to E, more so to I, entirely insensitive to O, but slightly sensitive to U.

"It dances in the most perfect manner to a small musical snuff box, and is highly sensitive to most of the sonorous vibrations which affect the vowel flame, though it possesses some points of difference."

NOTES

THE following telegram has been received from the English Government Eclipse Expedition:—"On board the *Mirzapore*, Malta, Saturday, November 4. We have arrived here in safety. All the members of the Eclipse Expedition are quite well, no thanks, however, to the weather, which during the voyage has been very bad. It was so bad that there was no possibility of practising with the instruments. Last night Mr. Lockyer, at the request of all on board the *Mirzapore*, gave a scientific lecture with experiments. You may form some idea of the novel character with which the lecture was invested when I state that it was blowing half a gale at the time."

SIR RODERICK MURCHISON has appointed Professor Archibald Geikie, of Edinburgh, his literary executor, and has left him a legacy of 1,000*l.* The Professor will write Sir Roderick's life, for which the deceased baronet had collected ample materials. Sir Roderick has also bequeathed to each of the professors at Jermyn Street a little remembrance of 100*l.* To the institution itself he has left the diamond snuff-box and the magnificent Siberian aventurine vase, mounted on a porphyry pedestal, presented to him by the late Emperor of Russia. He has not been unmindful of the scientific societies with which he has been so long connected. To the Geological and Geographical Societies he has bequeathed legacies of 1,000*l.* each, for the purpose of furthering the cause of science by rewarding men of science by prizes or otherwise as may be deemed proper. To old associates with him in his work he has likewise left legacies as expressions of his regard. Besides that to Mr. Geikie, sums of 350*l.* are appropriated for Prof. John Morris, Prof. T. Rupert Jones, Mr. Trenham Reeks, and Mr. Bates, and a sum of 100*l.* to Mr. C. W. Peach. We believe also that in the event of the failure of some of the heirs designated in the will, considerable sums are to go to various charitable and scientific institutions.

In addition to the appointments to the governing bodies of the public schools, made by the Senate of the University of London, which we announced last week, the Council of the Royal Society has made the following:—Prof. P. M. Duncan, for Charterhouse; Prof. Tyndall, for Harrow; Prof. Henry J. Smith, for Rugby; Sir James Paget, Bart., for Shrewsbury; and the Rev. Prof. Price, for Winchester School.

PROF. P. M. DUNCAN, F.R.S., of King's College, has been appointed Lecturer on Geology to the India Civil Engineering College, Cooper's Hill.

WE learn from the *Pall Mall Gazette* that a mixed Committee has been appointed by the authorities of the War-Office, to conduct an inquiry into the safety of gun-cotton, and to make the necessary experiments. The committee will also be required to collect evidence with regard to its value as an explosive agent; and generally to pronounce as to the suitability and safety of the material for use in torpedoes, breaching stockades, mining, &c. The Committee consists of Colonel Younghusband, R.A., president; Colonel Milward, R.A., Colonel Gallwey, R.E., Lieutenant-Colonel Nugent, R.E., Captain Field, R.N., Dr. Odling, F.R.S., Mr. H. Bauerman, and Mr. G. Bidder, C.E. The question of the safety of the new explosive "Lithofracteur," which a German firm is anxious to be permitted to make in this country, has also been referred to the same Committee.

MR. G. M. SEABROKE, the Temple Observer at Rugby, states, in a letter to the *Times*, for the information of those who possess telescopes of moderate aperture, that Encke's comet is now within their reach. It has been examined at the Rugby Observatory with an $8\frac{1}{4}$ in. aperture, and was very plainly seen. It has somewhat the shape of a fan, and there is a marked condensation on the eastern side, being the leading portion of the