

by exploding shells or otherwise agitating the air. The action is compared with that of a trigger, a large amount of energy being released by a small effort. An essential feature is, however, overlooked. For a trigger to work, there must be a

large supply of potential energy only awaiting release. Precipitation from partially saturated air would require an actual supply of new energy. Therefore a trigger action cannot produce precipitation.

### Obituary.

PROF. CH. FRANÇOIS-FRANCK.

CH. FRANÇOIS-FRANCK, the distinguished physiologist, and officer of the Legion of Honour, who passed away in September last at the age of seventy, was the successor, at the Collège de France, of Marey, whose assistant he had been from the time of his arrival from Bordeaux to work for the degree of Doctor of Medicine. The acquaintance was most fortunate. Marey, always in more or less delicate health and naturally desirous of saving his strength, seldom delivered the annual course of forty lectures which necessitated so much original work—for the lectures of the Collège de France are not given for the instruction of students in preparation for examinations, but to further the advancement of science. Marey continued in his own laboratory that admirable series of experiments on the flight of birds, the motions of the horse and man, and the compilation of his book, "La Méthode Graphique," of universal renown.

François-Franck was therefore appointed by Marey to lecture in his stead, and thus he gained the opportunity of doing original work for the foundation of the lectures. His subject was the physiology of the circulation in general and of the heart and lungs in particular; and for more than thirty years François-Franck delivered the course of lectures annually. The number of experiments he made must have been enormous, for all the lectures were illustrated on the board in the room by means of most ingenious apparatus and registering instruments. The talent for exposition he possessed and the extreme precision of the details and results he showed were never forgotten by those who attended the lectures.

It was in another department of physiology that François-Franck accomplished his *magnum opus*, "La Physiologie du Cerveau," published in 1887. He was on intimate terms of friendship with Pitres, afterwards the distinguished professor of neurology at Bordeaux, who, coming with François-Franck to take the degree of Doctor of Medicine in Paris, had gone direct to Charcot at the Salpêtrière. At that time Charcot was working very hard to establish what he called "la belle doctrine" of cerebral localisation, and Pitres became his most enthusiastic and useful assistant. He engaged the interest of François-Franck in this field of work, and they began a series of experiments which ultimately was continued and terminated by François-Franck alone. The work is a remarkable production, as physiologists know, both for the originality of treat-

ment and the extreme precision of the experiments. François-Franck also published a number of articles in the "Dictionnaire des Sciences Médicales" of Dechambre that are models of lucidity and sound learning, on the sympathetic nervous system, besides more than eighty papers or notes in the "Comptes rendus de la Société de Biologie," the meetings of which he seldom missed; he had also been a vice-president of this society. The reputation he had gained amongst physicians was such that he had become a much-sought consultant for heart and circulatory disorders and diseases, although he was never connected with any hospital.

François-Franck lived in retirement for the last few years owing to failing health, and was much missed by his scientific friends. Some twenty years ago the Academy of Medicine had most justly elected him to take a seat near the masters, Marey and Channeau, for he was the one man in France who was able to demonstrate in detail the great work of these physiologists who established the unalterable foundations of our knowledge of the functions of the heart and the circulatory organs.

E. J. BEVAN.

MR. EDWARD JOHN BEVAN, who died suddenly on October 17, in his sixty-fifth year, was educated at private schools, and at the age of seventeen entered the laboratory of the Runcorn Soap and Alkali Co. Thence, in 1877, he proceeded to Owens College, Manchester, where he met Mr. C. F. Cross, and the student friendship continued after the college career, each entering upon research work in connection with cellulose industries, upon which they kept up an active correspondence and a certain amount of collaboration. This resulted in a definite joint adventure, and the work was continued at the Jodrell Laboratory, Kew Gardens.

The publication of results in the Journal of the Chemical Society (1882-83) led to a research appointment with the firm of Thomson, Bonar and Co., actively engaged in the pioneer development of the "Ekman" wood pulp (cellulose) process; the work was undertaken under the formal partnership "Cross and Bevan." They were next engaged in technical research work in connection with textile bleaching processes—the "Thompson" process, the "Hermite" electrolytic process—and as a necessary incident prosecuted investigations of the alkali-boiling treatments by which