logy in the United States Geological Survey, and the discoverer in 1871 of the first pterodactyl remains; and of Eugène Renevier (1831–1906), the distinguished Swiss geologist. Swiss science is also represented by François Huber (1750–1831), the naturalist, who, though smitten with blindness, wrote a notable work on the habits of bees; British surgery is represented by John Abernethy (1764–1831), of St. Bartholomew's Hospital, one of the foremost medical teachers of his time; the birth of British industrial chemistry by Archibald Cochrane, ninth Earl of Dundonald (1749–1831), who wrote an account of coal tar and established works for the manufacture of soda from common salt, but reduced himself to penury. The bicentenary of the birth of Erasmus Darwin (1731–1802) will not only recall an interesting figure of the eighteenth century, but also will serve to remind us that on Dec. 27, 1831, his

famous grandson, Charles Darwin, left England in H.M.S. *Beagle*.

In the realm of engineering and invention many interesting centenaries will fall due. Sir Hugh Myddleton, who gave London its first water-works, died in 1631; Patrick Miller, who, with the aid of Symington, experimented with steam-boats in 1788, was born in 1731; while 1831 saw the deaths of Symington himself; of Blenkinsop, a pioneer of the locomotive; of Sir Samuel Bentham, and of Henry Maudslay, probably the finest mechanician of his day. The same year saw the birth of Sir Andrew Noble, the great artillerist; of Ludwig Nobel, 'the Baku oil king'; of Pullman, maker of the first sleeping-car; and of James Starley, who "by his improvements rendered bicycles and tricycles machines capable of general use", and by his energy raised Coventry to the position of a centre of industry.

Obituary.

DR. ELLWOOD HENDRICK.

A FRIEND cannot be defined. He is never made: he comes, when and how who shall say? Only where the wind listeth. He cannot be a woman: subtle, homosexual harmonies tie the relationship. He is the greatest and rarest of discoveries: the inestimable loss. The intensity of friendship may vary greatly: waiting as it does upon opportunity for its upgrowth, ripening with time, its character is of instant determination: at least, you know at once who are the people you will like.

Ellwood Hendrick, almost by his name, made instant appeal to me ten years or so ago when we met at one of our summer chemical gatherings. To write the common, catalogued, laudatory notice of such a man is impossible, the more as he has no base professional claim. When with him I had the feeling that "Rip van Winkle" was at hand, having Jefferson's inspired presentation of the delinquent in mind—a vision unfortunately impossible to the modern generation. Hendrick was a bit of a Rip and both in build and manner of Dutch complexion, with sufficient *Diable au corps*, I believe of Irish origin, to make him artist and humorist as well—no mere testubical chemist. Giving avuncular advice on the study of chemistry, he could slyly write—

You'd better join the Church before
This course is well begun,
Because you'll need to exercise
The art of faith, my son.
I used to think theology
Was rather rough on doubt
But chemistry with ions beats
Theology all out.

Long an admirer of Lafcadio Hearn—the strangest of hybrids, Greek-Irish by descent—in reading his "Life and Letters", by Elizabeth Bisland (1906), I had wondered what manner of man the Ellwood Hendrick could be to whom Hearn had addressed such wonderful outpourings,

even calling him 'Dear, Devilishly Delightful, Old Fellow' (in 1891). Hearn wrote his friend's epitaph in using these words. This is what I at once found him to be. We exchanged letters freely and it took me but a short time to fathom the secret of Hearn's love of the man. The full story of this friendship was given by Hendrick, in an essay he contributed to the *Bulletin of the New York Public Library* last year; he had presented the precious originals of the Bisland letters to the Library in 1919.

Hendrick tells how he first met Lafcadio Hearn, in 1888, in New York, at a select gathering of literary people, including Elizabeth Bisland—the most beautiful woman he ever saw. Hearn was then on his return from two years in the French West Indies; this was a year before he went to Japan. Quickly seeing how utterly miserable Hearn was in the presence of strangers, owing to his intense shyness, accentuated by his partial blindness, Hendrick soon took him away—as an old Heidelberg Corps student should, naturally to 'a none too respectable beer cellar', the only possible place of resort in the circumstances. The beer fulfilled its divine appointed purpose. They talked of many things. In the end Hendrick resolved that here was his opportunity:

"... that if this man would only let me, I would cultivate his friendship and be with him as much as I might, for it seemed as though, through him, a light was dawning on my horizon.

"Perhaps I had better explain a little about myself. I had studied chemistry abroad and had planned to organise a great synthetic organic chemical industry in the United States. It had started and proceeded for three years until we finally produced excellent materials. But our sales organisation was defective, tariff changes and a bad year ensued; there arose disagreement among the proprietors, the bonds foreclosed and that was an end to it all for me. I was young and foolish and resolved to have nothing more to do with chemistry which had been, I felt, a false mistress to me. The dreams of my boyhood and

young manhood were shattered, I believed my future to have been destroyed, that nothing but commonplace things would be available to me and that the whole business of living was hardly worth while. It was easy enough to make a living by sticking to my job but even if it did lead to a better post and more pay it lacked the distinction on which I had set my heart—and been disappointed. In short, my ambition was hardly to be recognised.

"I did not tell these things to Lafcadio as I have told them here but he sensed the situation. And just as I resolved that night to cling to this man in the hope of enlightenment, I believe he resolved to fan the almost extinct spark of ambition in his new companion, who was ten years his junior, until it might burn again and warm his disappointed soul."

Ellwood Hendrick was born at Albany, N.Y., on Dec. 19, 1861; he died in his New York home on Oct. 29, 1930. Educated for the most part abroad, at twenty he became manager of the Albany Aniline Dye Works—it is not surprising that he was unsuccessful. He then spent over thirty years in insurance work. He returned to chemical work, in 1917, with the Arthur D. Little Co., Cambridge, Mass. In 1924, he was appointed curator of the Chandler Museum in Columbia University. Of late, he exercised a great influence upon the social development of Columbia students, seeking to make them men of the world. All sorts of willing helpers came to his aid—distinguished actresses and others. He had a very pretty pen, as all know who have his delightful volume of "Percolator Papers" (Harper Bros., 1919), a model in its way—named after the organ of the New York Chemists' Club. He could write on subjects so far apart as Saul of Tarsus and C_2H_5OH —even ascribe to the latter the greater influence for good in the world.

Hendrick was a perfect letter writer. Early in March of last year, he wrote me a rapturous account of "Green Pastures", the work of his friend Marc Connelly. "I'm so full of it, I want to write about it to some sympathetic soul." To him it was a wonderful picture of the way in which the 'darkies' took the Bible and adjusted it to their own minds. (This may not be without repercussion upon ourselves, if we consider what is the effect upon students of textbook tarradiddles and modern pseudo-scientific mysticism.) "It is all real from a simple and childish point of view that everybody had once. I urge you to see it. It is free from all the offensiveness of apologetics." His charm, in fact, lay in his being himself a primitive. In "Green Pastures", Hendrick was in the element native to his spirit. HENRY E. ARMSTRONG.

WE regret to announce the following deaths:

Mr. T. F. Bourdillon, formerly conservator of forests, Travancore, on Dec. 19, aged eighty-one years.

Dr. Geo. F. Freeman, director of the Federal Experiment Station at Mayaguez, Porto Rico, since April last, an authority on cotton breeding, on Sept. 18, aged fifty-three years.

The Right Hon. Lord Melchett, P.C., F.R.S., chairman of Imperial Chemical Industries, Ltd., on Dec. 27, aged sixty-two years.

Prof. John Munro, emeritus professor of mechanical engineering at the University of Bristol, on Dec. 19, aged eighty-one years.

Prof. Pierre Termier, Inspector-General of Mines and Director of the Service de la Carte Géologique, who was elected in 1909 a member of the Section of Mineralogy of the Paris Academy of Sciences, aged seventy-one years.

News and Views.

WE have on more than one occasion had suggested to us that articles on investigations being carried on at various research centres would be of interest to scientific workers elsewhere. The selection of such centres is, however, a little difficult, and the result might be regarded as invidious, unless it referred to the activities of a particular investigator and the group of workers around him. After all, scientific research is peculiarly individual whether carried out alone or with the help of others. It seemed to us, therefore, that an approach to investigators themselves, inviting them to state the main subjects to which they are now devoting attention or problems which they would like to see solved, might lead to some interesting and suggestive notes. Inquiries, with this intention, have been sent to a number of people engaged in research, and in another column we associate replies received with the birthdays of those who have sent them. It is proposed throughout the year to publish similar notes under the title of "Birthdays and Research Centres", and we believe that the information thus brought together will prove of wide interest.

In the issue of NATURE for Dec. 27, under "News and Views", reference is made to "the birthday anniversaries of three veteran workers in science and

educational progress". In the case of Dr. William Garnett, who celebrated his eightieth birthday on Dec. 30, mention should be made of his work in Newcastle and the counties of Northumberland and Durham during the ten years he resided in Newcastle-upon-Tyne. When in 1884 he was appointed principal and professor of mathematics in the Durham College of Science in Newcastle, he found the College still in occupation of temporary premises ill adapted for its work. Circumstances combined to crown Dr. Garnett's insistent advocacy for the erection of special buildings; a site was acquired, and building operations begun with the north-east wing, which was opened in 1888, to be followed six years later by the completion of the south-east and south-west wings. In 1894 Dr. Garnett resigned the principalship to take up the organisation of technical education for the London County Council. Since that time the work in Newcastle has progressed; not only is the main building completed, but also many others have been erected on the site, in connexion with what is now known as Armstrong College. Further, it was mainly on Dr. Garnett's initiative that the University of Durham sought and obtained a supplementary charter, which provided for the admission of women to degrees in all Faculties save that of theology; a restriction removed later when the University was reconstituted. Finally, Dr. Gar-