

of interest and the far-flung activities of Bootham Old Boys. The headmaster read messages of greeting from the Minister of Education, Sir Michael Sadler and many others. Referring to distinguished former members such as Joseph Barcroft, F. W. Oliver, S. P. Thompson, J. Gilbert Baker, Lewis Richardson, Sir George Newman and Henry Seeborn, he claimed that the Society has performed, through the lives of its members, great services to the development of tropical countries, as well as to pure science. Above all, it has given to a great number of men a permanent enrichment of life. Mr. J. L. Paton, formerly High Master of Manchester Grammar School, gave an inspiring address. He warmly commended the pioneering step taken a hundred years ago in bringing biological science into the school. He spoke of these naturalists overseas as conquerors, not of men, but of Nature. Finally, he maintained that men do not really know Nature until they know her as the interpreter or the medium of the supernatural.

The Diesel-Electric Train Ferry *Scilla*

FOR nearly forty years a service of train ferries connecting Sicily with the mainland has been running across the Strait of Messina. The distance between the two terminal points, Messina and Villa San Giovanni, is about five miles. Until recently the service was maintained by two small ships which crossed in opposite directions simultaneously, so as to prevent an accumulation of rolling stock on either side of the Strait. In October 1931 they were replaced by the Diesel-electric train ferry *Scilla*, which has a displacement of 4,000 tons and a length of 358 ft. In *Engineering* of February 23, a full description is given of the vessel. It has a horse power of 5,000 and a maximum speed of 17 miles per hour. The coaches are embarked and disembarked at the end by means of a movable bridge. The adoption of Diesel-electric propulsion for a vessel of this type has several advantages, in particular its ability to run economically at different speeds, and rapid and accurate manoeuvring. There are two steering stations on the vessel, one on the boat deck and the other in the engine-room, and interlocks are provided so that it is impossible to operate the controls from both stations at the same time. The ferry carries both passengers and goods, and traffic in the latter, and more particularly the transport of fruit, has steadily increased since its inauguration. It is of a seasonal nature with a winter maximum, a summer minimum and a short peak load in June. The crossing takes 25 minutes and there are first and second class restaurants on the passenger deck. The corridor deck contains first, second and third class saloons for the passengers.

A James Watt Letter

A MOST interesting letter written by James Watt in 1784 to his father-in-law, Mr. Macgregor, has just been presented to the University of Glasgow by Mr. W. J. Wilson. The letter was published in full in the *Glasgow Herald* of February 9. Watt had once made surveys for the Caledonian Canal, and it had

been proposed that he should become the engineer of the scheme. By 1784, however, he had become so fully occupied with the engine business at Birmingham that he felt he could not accept the position. He said, "the contriving of engines and the other necessary attention to a business which is now very extensive takes up all the time that bad health will permit me to work, and it is possible that, setting aside the damage which the distraction of my attention might do to the partnership, my share of the loss in the engine business might exceed my gain by the canal direction." Speaking of his great contemporary Arkwright, Watt said, "he is to say no worse one of the most self sufficient ignorant men I have ever met with. Yet by all I can learn he is certainly a man of merit in his way and one to whom Britain is much indebted and whom she should honour and reward, for whoever invented spinning Arkwright certainly had the merit of performing the most difficult part, which was the making of it useful." When Watt wrote this letter he was forty-eight years of age, and eight years previously had married his second wife, Anne Macgregor.

Institution of Mechanical Engineers

AT the annual general meeting of the Institution of Mechanical Engineers held on February 16, the annual report was adopted and the ballot for the election of officers declared, Mr. C. Day becoming president for the ensuing year in succession to Mr. A. E. L. Chorlton. Honorary life membership, it was announced, had been conferred upon Mr. L. St. L. Pendred and the Right Hon. Lord Invernairn. The report showed a net increase in the roll of membership of 61 names, the total number of members now being 11,356. The total revenue of the Institution was £34,074. During the year the meeting hall had been much improved and the library accommodation increased. A standing Committee, entitled the Inventions Advisory Committee, had been formed to assist members, while another committee, entitled Works of National Importance Committee, had been established to consider proposals for works of national importance which could be submitted to the Government for consideration with the view of lessening unemployment. The report contains short reviews of the work done by the various research committees, the awards for papers and the results of the examinations for National Certificates and Diplomas in Mechanical Engineering. For these examinations there were 2,989 candidates in England and Wales, 226 in Scotland and 37 in Northern Ireland; a greater number than in any previous year. Twenty National Diplomas (Air) in Mechanical Engineering were awarded jointly by the Institution, the Board of Education and the Air Ministry.

Streets and Pavements in London

IN a paper read to the Newcomen Society on February 21, an interesting sketch was given of the history of the streets and pavements of London. In only two periods in its long history has London been efficiently paved and drained: in the days of