

subscriptions was headed by a gift of £10,000 from Sir Robert Hadfield, to whom the University was already indebted for valuable donations and much support. It is now announced that Sir Robert has increased his donation to £20,000, this being the largest individual gift so far received in answer to the appeal. The announcement was made in the course of his address at the annual meeting last month of Messrs. Hadfields, Ltd., and Sir Robert added that he was moved to add to his original donation by the noteworthy address delivered early last March by General Smuts on "The University in Civic Training", when he was installed as Chancellor of the University of Cape Town. General Smuts believes that the university is the hope of civilization, the one place where fact is exalted above sectional loyalties and ideologies. Sir Robert has given substantial proofs that he, likewise, has faith in the university as an institution of vital significance for the future of humanity. It is to be hoped that his great benefactions to the University of Sheffield will stimulate other industrialists to play their part in supporting more liberally, if not universities in general, at least the particular university to which they must look for development and progress in their own field. Sir Robert Hadfield, it may be noted, celebrated the fiftieth anniversary of his election to the Institution of Civil Engineers on March 1, when he received a congratulatory address from the president, and on March 23 was elected an honorary member of the Institution, for his "long and conspicuous service in the advancement of metallurgical science".

#### Decorative Lighting for the Coronation

SINCE the last coronation, twenty-six years ago, great improvements have taken place in the art of decorative lighting. In 1911, metal filament and arc lamps were used. Since then the invention of gas-filled lamps and the development of electric-discharge lamps have greatly cheapened the cost and improved the flexibility of the illumination. The illuminations will show many new aspects of London, and practically all the principal provincial cities will have very effective displays. In London alone there will be nearly two hundred floodlighting installations, and in the provinces, statistics obtained from six hundred local authorities show that the mean additional load per town will be approximately 60 kilowatts. This does not take into account the numerous smaller schemes of strip-lighting and illuminated devices with which shops and business premises will be decorated. For the first time, the fountains in Trafalgar Square are being illuminated by means of eight submersible reflectors taking 500-watt gas-filled lamps. In addition to all four sides of 'Big Ben', the terrace of the Houses of Parliament is being floodlighted for the first time. Two novelties are, 30-ft. high electric 'bonfires' with flame effects on the roof of the Shell Mex House, and colour changing equipment for illuminating 30-ft. high jets of water from fire floats stationed outside the new London Fire Brigade headquarters. A very large sodium flood-

lighting installation used at Dunfermline Abbey and Edinburgh Castle give an outstanding and beautiful display of decorative lighting.

#### The German Airship Disaster

THE latest and largest German airship, *Hindenburg*, was destroyed by fire while landing at Lakehurst, New Jersey, U.S.A., on the evening of May 6. This was the terminal point of her first voyage of the year from Frankfort-on-Main. She carried 39 passengers and 61 crew, approximately half of whom were killed or afterwards died of injuries. The airship had been cruising about for an hour during a heavy storm, which was judged to be too severe for safe landing, and was just coming in at about 300 feet above the ground, dropping her nose mooring lines for the landing crew on the flying field. Reports state that a burst of flame was seen at the stern. In a few moments the whole ship was enveloped in fire. This was evidently due to the ignition of the hydrogen in the gas bags, as the report mentions the exceptional brilliance of the fire. No details are yet available upon which any useful theories as to the cause of the fire can be based, but the fact that the ship had been cruising around the field in a heavy thunderstorm lends colour to the suggestion that she was electrically charged, and raises the possibility of sparks having occurred when the landing ropes earthed her. It is known that special precautions against this were embodied in her design, and therefore this theory assumes some additional accident. Whatever was the original cause of the accident, it is certain, as was the case with the British airship *R 101*, that the ignition of the highly inflammable hydrogen was responsible for the completeness of the disaster.

#### The Electrical Industry of the World

THE twenty-ninth report of the Imperial Economic Committee (London: H.M. Stationery Office. 2s. 6d. net) gives a survey of the trade in electrical machinery and apparatus. The latest information given relates to the year 1935. Perhaps the most significant feature during the last five years is the leading part that radio receiving sets have been occupying. At the end of 1935 there were 56 million sets of this type of apparatus in use, the increase having nearly doubled in five years. There were 22.5 million sets installed in the United States, and this works out to 178 per 1,000 of the population. The consumption of electrical energy used in radio receiving was 1,540 million kilowatt hours per annum. The corresponding figures for Great Britain, which was second in the world's list, was 7.4 million sets, and the third was Germany with 7.2 million. On the other hand, the increase in the world's telephones was comparatively small. This is ascribed primarily to an actual decrease in the United States and Canada. But these two countries still lead in this form of communication. It is worthy of note that there is a greater number of telephones per head of population in agricultural countries like Denmark, New Zealand and Australia, than there is in industrial