but which are able and willing to contribute an important part of a research.

GALEN H. CLEVENGER,

Acting Chairman of the Division
of Engineering

SCIENTIFIC EVENTS THE WATT CENTENARY

Additional interest has been given to the forthcoming commemoration of the centenary of the death of James Watt by the movement just inaugurated in Glasgow to found locally a James Watt chair of engineering at the university. Birmingham engineers decided some time ago that a similarly named chair should be installed in the university of their city, besides holding a centenary commemoration and erecting an international memorial to the three great pioneers, Watt, Boulton and Murdock. The commemoration in Birmingham will be held on September 16-18. London, Glasgow, and Greenock, and, indeed, all parts of the country, are heartily cooperating, and, with few exceptions, the universities and scientific societies, together with many manufacturers and individual eminent men, are associating themselves with the scheme. In the Science Museum at South Kensington steps are being taken to arrange a comprehensive exhibition of Watt relics. In Birmingham the Watt relics existing there, which have so carefully been preserved by the forethought of Mr. George Tangye, and were a few years back presented to the city, will be completely rearranged and displayed with many additions. Two pumping-engines made by Boulton and Watt will be seen; one, the first sold by the makers in 1776. will be actually shown under steam, and raising water. A memorial service will be held in the Parish Church at Handsworth, where the three contemporaries are buried. A garden-party will be held in park at Heathfield Hall, where the garret workshop still remains as Watt left it. Lectures will be delivered by eminent men and a centenary dinner held. Some doubt seems to have been raised with regard to the claims of Birmingham to an international memorial.

1 From Nature.

It should be remembered, however, that Watt's association with Boulton led to the success of his engine. Boulton's factory was famous for workmanship throughout Europe. It is true that Watt conceived his first ideas whilst working at the University in Glasgow, but he gained no practical success until he went to Birmingham. He spent the best part of his life there, including the evening of his days after he retired from business. The foundations he laid by scientific thought and careful study have resulted in the great and universal application of steam, and the appeal comes appropriately from Birmingham for an international memorial to him.

THE SHORTAGE OF COAL IN EUROPE

The Bureau of Mines gives figures showing that western and southern Europe is badly in need of coal. The deficiencies in the several countries were supplied by Great Britain, which now faces a loss of its export business through reduction in its coal production. On a pre-war basis of consumption the following tabular statement gives the deficiency in the various countries in western and northern Europe which must be met by imports:

	Long Tons (2,240 lbs.)
France	20,000,000
Spain	3,650,000
Italy	9,650,000
Holland (other than supplies from	
Germany)	2,010,000
Sweden	4,560,000
Portugal	1,360,000
Norway	2,300,000
Mediterranean countries (other than	
Italy)	3,500,000
Denmark	3,030,000
Total	50,060,000

In 1913 Great Britain supplied 31,000,000 tons to north Europe; 32,000,000 tons to France, and south Europe, that is 63,000,000 tons to the above-named countries, and others, in Europe, in addition to which about 9,000,000 tons was sent to South America; and 5,000,000 tons to other parts of the world.

If the statements made before the Parliamentary Commission are correct, from the