

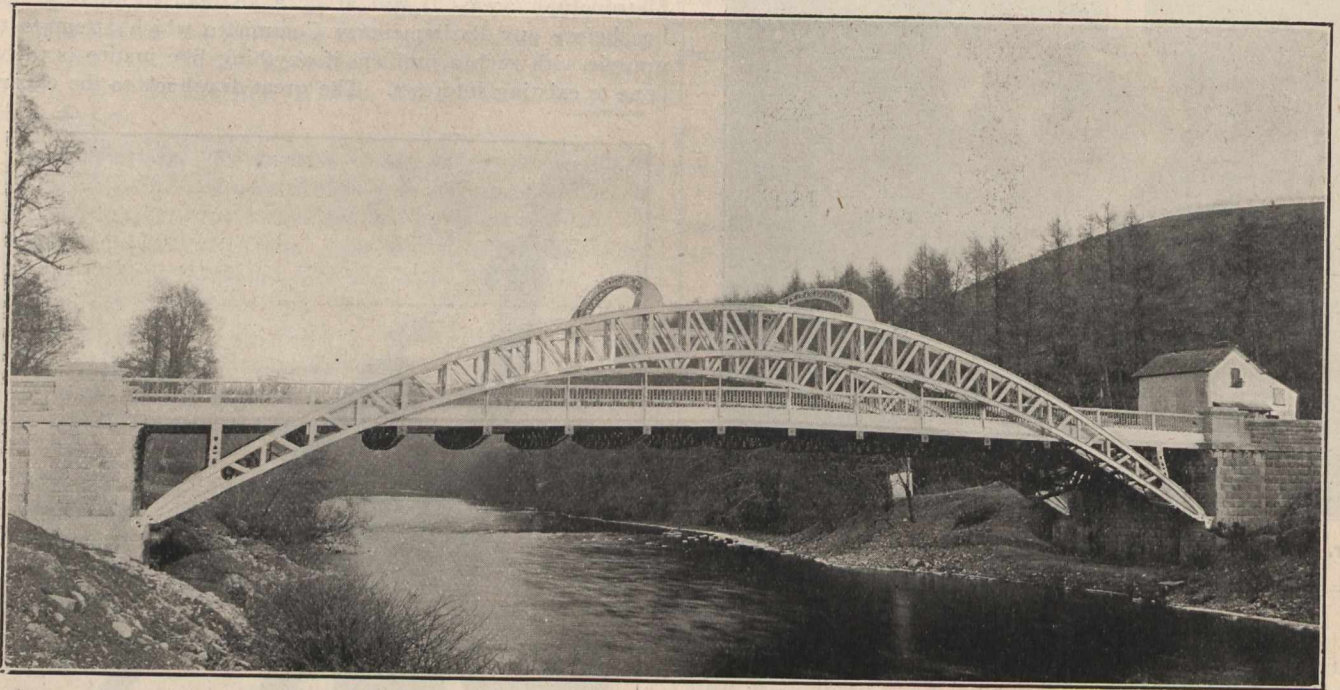
British Trade with Canada.

Somewhat bearing upon the above, is the present position of the electrical industry in England, for it has been urged that several millions would have been expended in electrical plant had not the bill promoted by a company in 1905 been so obstructed as to be prevented from passing into law. The past year or two has witnessed great activity on the part of electrical engineering firms to foster trade with the colonies, and latterly, more especially with Canada, although the fact has to be admitted that the greater attention thus bestowed upon oversea countries is the result of over-competition for orders at home. Almost every large firm is devoting a large portion of its attention in this direction, and the wealthier ones are sending out representatives direct from home. So acute has the position at home been, that several firms refuse to tender for a certain class of work, having quite made up their minds beforehand that even if they secured the order the margin of profit would be so small that no benefit would ensue. Thus Messrs. Callender's Cable and Construction Company have recently personally visited Canada, in order to stimulate business, whilst I could name half a dozen others who have been sending out agents in the same manner. It might be said that Canada and India are regarded by the electrical industry as the most promising

before applying the hot tar. The tarspray apparatus distributes the material upon the road by means of a double acting pump driven from the road wheels through gearing, and is claimed to penetrate two inches. The Emulsifix system has two tanks, one of which contains tar oil, and the other water. The tar and water meet in a common tank at the back of the cart, in which there are rapidly revolving blades that emulsify the tar and the water and force the emulsified tar oil through a sprayer on to the road. In another apparatus by Messrs. Thwaite & Thorpe, of London, a certain proportion of water is added, the mixture being applied hot after first rolling the surface of the road with a hot roller. The tar is afterwards sprinkled with sand at 300° F. In yet another apparatus the hot tar principle is embodied. These various systems are being largely taken up by local authorities and road authorities generally, but as they are all more or less efficient the question of cheapness of working appears to be the determining factor. The results of the tests mentioned above, which were carried out on behalf of the Royal Automobile Club and the Motor Union, have not yet been published.

10,000 Mile Motor Car Trial.

A 40 h.p. four cylinder Wolseley-Siddeley car has just completed a 10,000 miles test under ordinary touring conditions, and the Royal Automobile Club has granted a certi-



Bridge Over River Usk, South Wales.

fields for avoiding a position at home which appears to show few signs of recovery.

The Road Dust Nuisance.

With the phenomenal increase during the past four or five years of the number of motor vehicles on the roads of Great Britain, the inconvenience of dust upon macadamized roads has been largely accentuated, and many kinds of treatment have been devised for minimizing, if not removing altogether the nuisance. As regards the proper material, opinions seem to have pretty well standardized, viz., that materials of a viscous nature, such as coal tar, etc., are the most efficacious. Consequently, much ingenuity is being displayed in the methods of application, and a recent demonstration, near London, of various systems revealed an activity in this direction unknown to many. In all cases the tar spreading machine takes the form of a tank, and usually it forms part of a motor tractor. I give a brief account of some of the machines. The "Tarmaciser" Company use a steam tractor to which is attached a large tank. Steam coils are fitted in the tar tank and connected to the steam tractor to heat the tar. By means of rotary brooms and suckers the road is thoroughly cleansed from surface detritus, after which the surface binding of the road is disturbed. The tar is then spread on, and brushed in, which is followed by a distribution of the dust, over the tar, taking from the road

cate. The car ran nearly 3,000 miles when the fracture of the change gear hand-lever caused an involuntary stoppage. Altogether the car, which ran every day except Sundays, was travelling 78 days, and took on an average 26 minutes per day for repairs, other than tyre repairs. At the end of the trial the officials of the Royal Automobile Club reported the condition of the car as exceptionally good. "Elastes" filled mechem tyres were used with good effect.

"The Most Perfect Sewerage Works in the World."

There has just been completed for the town of Hanley (Staffordshire) what is called by the medical officer of health to the Staffordshire County Council the most perfect sewage scheme which has ever been put to work in this or any other country. The cost of the scheme has been nearly £75,000, and includes detritus tanks, septic tanks, and filters to deal with a volume of sewage equal to six times the dry weather flow. A four foot barrel sewer conveys the sewage to the works where it is delivered into a screening chamber. Here all floating garbage and larger solids are transferred into a special trough through the agency of mechanically driven rakes. There are three detritus tanks which treat the sewage by settlement after it leaves the screening chamber. In one of these tanks all the heavier solids are deposited. The total capacity of these three tanks is 342,000 gallons; the capacity of the 4 high level septic tanks 2,050,000 gals.; and