not longer than two hours. At the end of this time the three samples should be placed in the machine and tested for ductility by pulling apart at the rate of 5 cm. per minute.

Please make note of time when sample was placed in the hot-air oven and when it was removed and poured into mould; also the time when cut and placed in water at the standard temperature, and the length of time it remained in this water before testing. Note also temperature variation of water in standard bath and also in tank of machine while test was being made.

The results obtained are given in Table I.

In one or two cases where the ductility of the sample determined by any laboratory varied materially from that obtained in the laboratory of the chairman, the sample was investigated. In two cases, these variations were shown to be due to differences in the samples and not to conditions in the method of manipulation. The results, as will be seen, are not as concordant as are desirable, but these variations are now under investigation and we are in hopes of finding out where the difficulty lies.

It must also be borne in mind, as above stated, that only such samples were sent out on which it appeared

Sample No.	Ductility Determined by Different Observers, cer timeters pulled before rupture.					
	Ker- shaw.	Gage.	Broad- hurst.	Pullar.	Klee- burg.	Dow.
¹⁰⁹²³ (Test A) {	55	49	36a		53	52
	58	46	36	49	52	53
	82	48	42	52	48	57
10923 (Test B) {	51	54	35		46	48
	59	48	35	100 C. L.	53	60
	75	44	36		48	69
11020	26	24	22		22	20
	30	26	28		22	21
	30	1 24	21		23	24
	02	25	1	1912-2012	23	24
	20	23	19 5 30	1 Produced	24	24
	39				17	21
11018		45	76	1. Star	39	78
	08	40	66		37	77
	10	02	56		32	73
	68	40	50		34	78
	40	44	1	1	33	77
	50				34	1
	04	••	1	1.1.		
10923	50	10	61		31	62
	54	41	60	1 Statist	32	46
	66	46	44	and in	40	60
	20	43			34	47
	54	40			36	47-
	67	1		122 449	38	52
	01	1	1			1 and The

Table I.-Results of Tests for Ductility.

^a This sample was checked by Dow, who obtained the same results as Broadhurst, showing that the sample was lower in ductility than those sent to the other observers.

difficult to obtain concordant results. There are many classes of materials which will give the same ductility time after time. From investigations carried on so far by the chairman, it would appear that this lack of concordance in ductility on different samples is due to some physical change which takes place in the sample.

The Broken Hill Proprietary Company, Limited, of Australia, has a 350-ton blast furnace, three open-hearth furnaces and a combination structural steel and rail mill constructed, and 60 by-product coke ovens under construction a Newcastle, New South Wales. The company controls large iron-ore deposits in South Australia.

OILING ROADS TO PREVENT DUST.

HE use of asphaltic oils to prevent or reduce dust on ordinary roads, in distinction to their use in constructing oiled-macadam and similar pavements is discussed by T. R. Agg, of the University of Iowa, in a recent number of Oildom. Oils containing from 40 to 50% of so-called "asphalt" are the best to use. Preparations for oiling a street should be started several weeks before the actual oiling is to take place and preferably in the early spring. The street should be carefully shaped with an even slope of about one inch to the foot from crown to gutter. As the surface settles, the roadway should be dragged until it becomes hard, smooth, and free from depressions. The street is then ready for oiling. As the principal object of oiling is to prevent dust, there should be no dust on the roadway when it is oiled. If there is any dust it should be removed before oiling. This will involve some expense, but it will be found to be worth while. In case the decision to oil a street is not made until well along in the summer, when the surface has become dry and hard, the surface should be disturbed as little as possible, as it will be found difficult to get the newly placed earth to pack properly. Oiling at this time of year should be avoided whenever possible as the results are sure to be inferior to those obtained when the road is oiled early in the summer.

The oil may be distributed with an ordinary street sprinkler, the adjustment of the spray to give the proper amount of oil being found by trial. Sidewalks and crossings should be kept clean and care taken to avoid forming pools at any point. The crossings may be covered with dust or sand before the oil is applied. After the street has been under traffic, the crossings may be cleaned.

After the oil has been spread, it should stand for a day without being covered, and then just enough sand should be spread upon it to keep the oil from being picked up by traffic. About two or three loads to the block will usually be needed. More sand may be applied after the street is opened to traffic, wherever there are spots that may seem to need it. Where a street is oiled for the first time, about one-half gallon to the square yard should be used. After the first application, if the street is oiled every year, one-third of a gallon to the square yard is all that is necessary. With oil costing \$1.68 per barrel, the cost of oiling by the method described should be six or seven cents per square yard.

COBALT ORE SHIPMENTS.

The following are the shipments of ore, in pounds, from Cobalt Station for the week ended July 9th, 1915:--

Right-of-Way Mines, 88,800; Mining Corporation of Canada, (Townsite City Mines), 86,530; Dominion Reduction Company, 88,000; Beaver Consolidated Mines, 64,505. Total, 327,835 pounds, or 163,917 tons.

The total shipments since January 1st, 1915, are now 16,424,940 pounds, or 8,212.4 tons.

Mr. D. A. Thomas, who is to represent Mr. Lloyd George, minister of munitions, in Canada and the United States in the purchasing of war munitions, is a Welsh coal mining magnate. He is head of the firm of Thomas and Davey, coal sale agents. He is a member of parliament for Cardiff, and is one of the prominent men in Great Britain. He was born at Aberdare in 1856, and was educated at Cambridge University. He was on the Lusitania when it was torpedoed but was rescued.