MONTREAL TRADE FIGURES.

The official figures of imports and exports at that city, for September, obtained at the Montreal Custom House, show a considerable increase in the aggregate trade for the month. In dry goods imports, for example, the increase in woollens, silks, and fancy goods is marked, while in cottons, hats, caps, and bonnets there is a decrease. Iron and steel goods show an increase of some fifteen per cent.; the same may be said of leather goods, jewellery, drugs, spirits, earthenware. Of paints, oils, musical instruments, brass and copper goods, there is a decreased import. We subjoin a comparative table giving figures for September, 1889 and 1890 :—

IMPORTS.

	Sept., '90.	Sept., '89.
Cotton	$ 84,045	$ 92,868
Fancy goods	53,502	34,723
Hats and bonnets	27,360	33,410
Silks	100,354	92,223
Woollens	452,878	354,076
Total dry goods	$718,139	$607,300
Books and stationery	$28,396	$26,984
Brass goods	17,430	18,965
Coal, soft	18,764	8,374
Copper goods	9,375	20,945
Drugs	43,704	37,790
Earthenware	23,903	13,142
Fruits	31,904	28,707
Furs	32,518	18,656
Glass	39,713	36,650
Iron and steel goods	483,740	418,766
Jewelry, &c	41,360	33,439
Leather goods	64,857	33,881
Musical instruments	8,892	10,392
Oils	32,871	73,157
Paints	36,692	41,119
Paper	28,565	27,026
Spirits, wines, &c	44,832	24,606
Wood goods	41,380	24,466

In exports the decrease has been mostly of animals and their products, and of agricultural produce such as grain, for there was an increase in the exports of timber and lumber from $331,000 in Sept., 1889, to $510,000 in the same month of the present year. Comparison is made below :

EXPORTS.

Produce of	Sept. '90.	Sept. '89
The Mine	$64,527	$102,296
" Fisheries	5,624	5,775
" Forest	510,347	331,415
Animals, and their produce	1,809,537	2,493,003
Agricultural products	218,643	261,634
Manufactures	62,484	87,453
Total	$2,671,162	$3,281,576

SCIENTIFIC INDUSTRY.

The present is an age of experiment and invention, of discovery and application. There seems almost no end of devices for labor-saving, for economic production. So great are the demands for all descriptions of products, and so great the competition to supply them, that the laboratory and the designing-room are pressed to keep up with the race. At the recent meeting of the British Association, Sir Frederick Abel, as president of the recent British Association meeting at Leeds, Eng., delivered an address which covers a wide field of applied science, but is a careful and thoughtful summary of the latest developments in almost all the leading departments of scientific industry. Much of it, says the London *Ironmonger*, has no special connection with the metallurgical industries, but some of its passages have particular reference to the iron and steel trades. Sir Frederick is a believer in the utility of electric welding, which is being very largely used in the United States, as well as in this country, Germany, France, and Russia. In the last named country the system of Dr. Bernados, of which but little has been said hitherto, is being applied with success to the welding of thin iron and steel sheets, hoops and the like.

On the subject of alloys of aluminum with iron or steel, the president's remarks should be read with attention, seeing that there is no doubt that such alloys are likely to become general at no distant date. For foundry purposes there can be little question of the excellent results which are obtained by the admixture of small proportions of aluminum with grey and white pig iron. As regards the uses of manganese, chromium and tungsten, Sir Frederick had something of interest to say. Chromium has long been known to steel makers, but it would seem that it has only recently been appreciated properly. Its effects differ widely from those produced by manganese. Thus chrome steels weld badly, or not at all, whereas manganese steels weld very readily, and work under the hammer better than the ordinary carbon steels. Chrome also differs from manganese in not affecting the magnetic properties of the steel to which it is added. For war purposes chrome steel is being very highly appreciated. Projectiles made from it possess enormous penetrative powers, and we learn that its adaptability to guns is at present under investigation. For railway requirements chrome steel is being used with considerable advantage by Mr. Webb, at the Crewe works of the London and North-Western Railroad Company.

Alluding to the alloys of nickel and copper with steel, Sir Frederick remarked that in France, at Le Creusot, a small percentage of copper is being added to steel for armor-plates and projectiles, with the object of imparting hardness to the metal without prejudice to its toughness. At Glasgow, Mr. James Riley has found that the presence of aluminum in very small quantities facilitates the union of steel with a small proportion of copper, and that the latter improves the strength but does not improve the working quality of the steel. With nickel Mr. Riley has obtained products very nearly allied to manganese steel —some of them being likely to be found extremely useful for boiler-making purposes. All these experiments with alloys seem to demonstrate that there is yet much to be done in that direction by thoroughly practical and experienced men. With regard to the recent enunciations of "periodic laws" Sir Frederick Abel utters a word or two of warning, his view being that much caution has to be exercised in drawing broad conclusions from such researches as those. All researches are useful, but they must be complete and clear in every respect before sweeping conclusions can be made from them.

We quote further from the *Ironmonger's* summary of this scientist's remarks. "On the subject of gunpowders Sir Frederick Abel's remarks are deserving of especial attention, inasmuch as from his official position and long experience he is probably the highest living authority on explosives. Smokeless powders were dwelt upon at length, because Sir Frederick believes that in future warfare the belligerents will be users of them. The French appear to have kept the secret of their melanite extremely well, but it is believed that it is chiefly composed of picric acid—which is one of the products of coal-tar. Our exports of it for some years past have been larger than could be needed for commercial purposes, and as France, and lately Germany, have been the largest buyers, it is reasonably certain that both powers have hit upon the same basis for their most destructive explosive agent. As regards the improved production of safer explosives for mining purposes, it appears to have been demonstrated by Mallard and Le Chatelier that ammonium-nitrate does not develop a higher temperature when detonated than 1,130° C., whereas fire-damp and air mixtures are not ignited at lower temperatures than 2,220° C.—hence the compound appears to be safe to use in dangerous mines.

"Passing on to the subject of the petroleum industry, Sir Frederick mentioned that the Pennsylvanian production has not kept pace with the consumption, and that the accumulated stocks bid fair to have vanished by the end of the year. The imports of kerosene from the United States last year were 1,116,205 barrels, and from Russia 771,227 barrels, so that the progress of the Russian oil industry has been really remarkable. The president then commented upon gas fuel and gas for illuminating purposes, thus concluding an address which may well bear comparison with any of its recent predecessors for lucidity, scope and ability of treatment."

ANCIENT ORDER UNITED WORKMEN.

The following are the contents of a letter received from Mr. G. J. Baldwin, Recorder of Amity Lodge, A.O.U.W., Galt, dated October 13th instant :—

"SIR,—In your last issue of THE MONETARY TIMES, I notice a statement which is incorrect respecting A.O.U.W. assessments. You say that up to August we had 12 assessments; I beg to say that up to end of August we only had 11 assessments, which I think is a magnificent showing after such an epidemic as la grippe. Also note last year was a very poor year to take average, as 12 assessments was remarkably low, and I believe this year will close with 14 assessments, which is only the average of the past decade."

We are glad to be set right when we are wrong, and it seems that in this instance a mistake was made. By the organ of the Ancient Order of United Workmen in Canada, the *Canadian Workman* of September, 1890, we find the sixth page devoted to the monthly statement of the Grand Recorder of the Order for August, the assessments for which amounted to $20,169. And on page one of that journal we find death No. 721—Bro. Cornelius Kerr, aged 56, marked "Assessment No. 12." We were led by these, wrongly, as it appears, to assume that the 12th assessment was made in August. Thus we should have said 11 instead of 12.