

## Paragrams.

Mr. G. W. Leadley, of Ashburton, one of the most prominent of South Island farmers, and vice-president of the New Zealand Farmers' Union, stated a few days ago that during a few years frozen meat, to the value of £22,000,000, had been exported from the colony.

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Wellington has accepted the tender of Messrs. Turnbull and Jones, agents for the Westinghouse Company, for the electrical plant for the power-house extensions. The figure is £1375 7s. The unsuccessful tenderers were—Mather and Platt, £2322; Brush Company, £2688; Electric Construction Company, £2700; General Electric Company, £2736; Dick, Kerr and Co., £3175.

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A successful flotation of the Ironsand Company is said to be expected very shortly. Mr. Witheford has been in constant cable communication with those in New Zealand interested in the project, and (according to the Taranaki Herald) the latest advices are couched in very confident terms. The public may expect definite announcement at an early date, and previous disappointments are likely to be sunk in the assistance of a good future for the potential industry.

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The Labour Department has of late been sending a large number of men to various public works throughout the colony, especially to the North Island Main Trunk line. The steamers every week are bringing over many men seeking employment, attracted here, no doubt, owing to the prosperous state of the colony. Some are first-class labourers for pick and shovel work, but others, again, are altogether unsuitable as clerical vacancies are limited.

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The improved trolley-head for electric tramways, invented by Mr. Garnet Holmes, of Wellington, is highly spoken of by all the electrical engineers to whom it has been shown. The patent has been taken out in the names of Messrs. Holmes and Allen, who are fellow employees in the Corporation tram service; and it is not unlikely that Mr. Holmes may at an early date go to London with a view to bringing the improved device under the notice of electricians and tramway experts at Home.

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There are forty-three electric tram cars running in Wellington. Three of these (combination cars) were built locally, and two more, of the Hongkong pattern, are in course of construction in Wellington. It is likely that the Corporation will build its own cars in the near future. Machinery is being procured, and preparations for such work are being made. Of course, the under gear will, as at present, have to be imported, but with this exception the cars will be the product of municipal industry.

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Reports received by the Minister for Public Works indicate that very satisfactory progress generally is being made on all three sections of the North Island Main Trunk railway. There are at the present time about 1500 men employed on these works which it is intended to push on with all expedition during the summer months. Bad weather has been experienced at the southern end of the line, between Taihape and Waiouru, one of the difficulties of the department of the railway construction being the excessive rainfall in that locality.

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That the improvement in trade is becoming widespread is deducible from the better position of nearly all the world's commercial markets. This is shown by the summary table which has been prepared by the Board of Trade, showing the total imports and exports of merchandise of the principal countries for which the particulars can be given, up to June, 1905, inclusive, and referring in all cases to the same period, viz., the six months ended June. It is worthy of note that the United Kingdom heads the list of thirteen countries as regards the magnitude of the imports and exports respectively, and in this particular Great Britain is even beyond the United States, notwithstanding the vastness of that country's area. British domestic exports are returned broadly as 155 millions sterling, against 144 in 1904, and 142 in 1903. The newest total is four millions in front of the United States. The same pleasing tale of trade expansions is told by the Board of Trade return relating to British railways, which shows that the net receipts amounted to £42,066,000 in 1904, as against £42,327,000 the year before.

In speaking of his experiments, Tesla said: "These experiments are my private business. I will say, however, that we are doing very much more than solving the problem of wireless telegraphy. In fact, I am satisfied of the practicability of taking wireless photographs. Very much more important things even than these will, I am convinced, be accomplished in the near future."

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A scheme has been mooted to utilise the Victoria Falls for the transmission of power to the Witwatersrand mines (west of Johannesburg). Expert opinion is favourable. It is estimated there would be a minimum supply of half a million horse power in the driest season. The Rand now consumes 150,000 horse power, costing three million pounds per annum. The cutting of a canal at a point below the falls would increase the supply to a million horse power.

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Dr. Chapple, who intends reading a paper on "Human Progress" before the Socialist Party, is collecting statistics showing the physical development of Wellington State School children, for the purpose of comparing them with data which he has received from various parts of the world. He states that the measurements, weights, etc., which he has so far taken in Wellington show that the figures as to the physical development of our children compare with those relating to the children in many other countries.

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The Christchurch Tramway Board has decided to use some of its old rails and material, and construct a branch line from the Victoria street line to Park terrace, to rejoin the main line higher up. The estimated cost is £1,700 to £1,800, including new material, estimated to be worth from £400 to £500 at the end of the term. The Exhibition Commissioners are to provide funds for the total cost, the Board to take over the new materials at valuation. A five minutes' service from the railway to the Exhibition is proposed during busy parts of the day and evening, the fare to be 2d, of which  $\frac{1}{2}$ d, by way of royalty, be paid to the Commissioners.

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The new flagship of the Australasian station, the "Powerful" does not seem to mark a new era in the defence of our shores, for she has the distinction of being one of the most obsolete cruisers that ever carried the flag in southern waters. The "Marine Engineer" of November 1st, 1905, says:—"Considerable surprise was occasioned by the decision to send the 'Powerful' as flagship to the Australian station. She has always been a heavy burden on the naval votes, and if the Admiral of the Australian station does as much cruising as usual he will be astonished at his enormous coal bill. The 'Powerful' cost over £700,000 before she was completed, and since then nearly half as much again has been spent on her in repairs and refits."

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When George Westinghouse, as a young inventor, was trying to interest capitalists in his automatic brake, the device which now plays so important a part in the operation of railroad trains, he wrote a letter to Commodore Cornelius Vanderbilt, president of the New York Central Railroad Company, carefully explaining the details of the invention. Very promptly his letter came back to him endorsed in big, scrawling letters, in the hand of Commodore Vanderbilt—"I have no time to waste on fools."

Afterwards, when the Pennsylvania Railway had taken up the automatic brake, and it was proving very successful, Commodore Vanderbilt sent young Mr. Westinghouse a request to call on him. The inventor returned the letter, endorsed on the bottom as follows—"I have no time to waste on fools."

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The *Latton Times* thinks New Zealand might take a "wrinkle" from Italy in the matter of the International Exhibition to be held this year in Christchurch. In connection with the Milan Exhibition of 1906, his Majesty the King of Italy will offer prizes to the extent of £1,600 to exhibitors. This amount will be divided as follows—(1) A prize of £200 for automatic safety couplings for railways; (2) a prize of £200 for the best method of testing high voltage electric currents without danger to the operator; (3) a prize of £400 for the best and most original exhibit of machinery or manufacturing process; (4) a prize of £200 for the best established method of distributing healthy and pure milk in centres of population; (5) a prize of £400 for the best type of popular dwelling adapted to the climate of Northern Italy; (6) a prize of £200 for motor boats. In addition to the foregoing there will be a national prize of £200 to the public institution or private society which, during the last ten years, has been most successful in the work of reclaiming waste lands in mountainous districts and in improvements of pasturage.

From returns supplied by the secretary of the Timaru Harbour Board, it is evident that the South Canterbury port is making steady progress. The imports last year amounted to 76,901 tons, valued at £227,224, while the exports totalled 78,926 tons, valued at £1,042,463. The imports show a large advance over those of 1904, both in weight and value, showing that the spending power of South Canterbury has undergone a considerable expansion. Combining the tonnage of the imports and exports, we get a total which is the highest in the history of the port, and which was approached only in 1901, when the heavy shipments of produce to South Africa were largely responsible for the encouraging amount of 150,091 tons. The exports for last year showed a slight decrease as compared with 1904, which is partly accounted for by the potato blight, that caused a drop of over 75 per cent. in the export of potatoes.

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In a new trunk-type air compressor, described by the *American Machinist*, the discharge valve is of the full diameter of the cylinder, and seats itself on the cylinder end. The inlet valve—a trifle less in diameter—seats on the outlet valve, and air is admitted between the two valves and enters the cylinder round the edge of the inlet disc. The piston end accurately fits the face of the inlet valve, and the clearance is nil, for the piston may come right home and even lift the two valves off their seats. The cylinder cover encloses both valves, and a flexible diaphragm separates the discharge space beyond the inlet valve from the air-inlet central tube which admits air between the valves. As the valves are so large, their lift is small, and the principle of construction seems good, especially for high pressures, for there should be an efficiency of delivery of 100 per cent. of the volume generated by the piston.

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Artificial moisture in the atmosphere is a necessity when a building is heated by the air which issues from registers connected with hot-air furnaces. Where for any reason the outdoor air is abnormally dry, and in passing through a hot-air furnace it expands and has a capacity for a greater quantity of moisture, the room which it warms may be raised to an unusually high temperature, say 80° F. or more, and yet feel comfortable to the occupants. When the air is in this condition it absorbs moisture from the body rapidly without a chilling effect. This is a recognised fact, and to overcome the drawback, inventors are engaged in devising different kinds of humidifiers. This should suggest to progressive furnace manufacturers the desirability of developing some vapour-supplying device for use in connection with their furnaces that will satisfy the needs which they formally attempted to supply by the provision of a water pan, and which the public is being educated to feel and will eventually demand.

## NOTICES.

We have received a copy of the *Australian Photographic Journal*. This publication is conspicuous for the valuable nature of its hints to photographers, both amateur and professional, and is distinctly a credit to the publishers.

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The *Australasian Accountant and Business Man's Journal*, Dunedin, says:—"PROGRESS is splendidly got up, plentifully illustrated, and reflects credit on the publishers. It more than compares with the *Scientific American*, and that is saying a good deal."

## SPECIAL NOTICE.

Owing to the inordinate demands made on our space by the rapidly increasing scope of the petrol motor, we have decided to issue a

## Motor Number

for March next. March PROGRESS will, therefore, be conspicuous for its high interest as affecting the all-absorbing question of the hour.

Order copies of PROGRESS early, as our subscribers are the first consideration. Only a few copies will be obtainable at the stationers.

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