

# PROGRESS

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## Progress

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## EDITORIAL COMMENT.

### "Progress" Grows.

THIS issue bulks heavily with its forty pages, or nearly double the number comprised in our issue of November last. The calls made, even with an enlarged paper, were so many that we had, perforce, to hold over several valuable articles. This, while perhaps disappointing to our contributors, is to be taken as a good indication of the esteem in which PROGRESS is held by the people of the Australasian colonies.

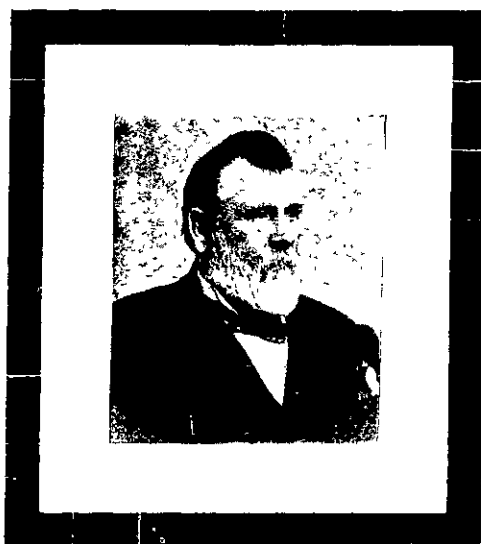
### Progress of the Automobile.

ENGLAND is the greatest automobile market of the world. She buys £10,000 worth of motor cars every day. In six months the number of English chauffeurs has increased by 26,842. To show how great is the demand made on motor cars we may mention that while the United States imported 198 in March last, England imported 675. In six months the English Customs have registered £1,680,000 as the value of imported automobiles. Great Britain buys almost 20 cars daily, and as France supplies three-quarters of the imports, Great Britain is almost as important a market for the French automobile industry as France herself. It is curious to compare the foregoing figures with those of the exports. During six months England exported only 416 cars, valued at £132,000, and motor cycles valued at £13,603.

Notwithstanding her Colonial Empire, Great Britain is just commencing her activity from the export point of view so far as regards the automobile industry. For all that, England is a large producer, and in the last six months of 1905 her output was 10,606 cars and 12,443 motor cycles. This gives an average production of 1768 cars and 2074 motor cycles a month or 21,212 cars and 24,886 motor cycles a year. The total automobile production of the United Kingdom exceeds £8,000,000 a year.

### Past and Future.

SINCE our last issue death has overtaken one of the most conspicuous figures in the pages of colonial political history. The Rt. Hon. R. J. Seddon, for thirteen years Prime Minister of New Zealand, passed away on the 10th ult. at the age of 61. During the régime of the Seddon Ministry New Zealand



RICHARD JOHN SEDDON.

Born 22nd June, 1845.

Died 10th June, 1906.

evolved from comparative obscurity into a state of progress and prosperity that is quite unparalleled in the records of the British colonies, and it is only meet that the legislative standard set by the late Mr. Seddon and his colleagues should be carried out for the further good of this colony by men awake to the responsibilities imposed. The task is set, a great man's mission only half completed. May the differences that retard a people give way to the transcendent claims of one common cause—Advance, New Zealand!

### Advance of Gas Engines.

WHILST we believe that there will long remain plenty of opportunities for the economical employment of steam, it is at the same time instructive to learn that it is claimed by Dr. Erhardt, in an able article in *Stahl und Eisen*, that the gas engine's future is truly gratifying and that in its running for favour it bids fair to find a very forward place.

Nearly all British gas-engine builders are doing remarkably well, and we believe this happy condition of affairs will continue and become even more pronounced. Dr. Erhardt strongly advocates the employment of gas engines worked by waste gases from blast furnaces. In dealing with the respective merits of blast-furnace steam plant, and of blast-furnace gas plant, he points out that the comparative working expense of the two systems may be illustrated by the following examples:—A horizontal blast fan, driven by a gas engine developing 600 effective h.p. at 80 revolutions per minute, and actually averaging 90 per cent., or 540 h.p. for the year, consumed 1,620 cubic metres of gas per hour, at a cost of 3.52 shillings, or, per year of 8,600 working hours, £1,500. The cost of attendance and repairs amounted to £660, bringing up the total to £2,160 per annum. Compared with this was a blast fan driven by a compound condensing steam engine, working under 90 to 100 lbs. pressure, and developing a force of 600 h.p. at 60 revolutions per minute, with an average of 540 h.p. for the year. The gross consumption of steam was only 9.4 kilos. per horse power hour, at a cost of 11.8 shillings, or per working year (8,600 hours), £5,075. Attendance and repairs cost £490, the total cost of working being therefore £5,565, that is to say, £3,405 more than with the gas engine already mentioned. Even a gas engine of older type, consuming more gas (3.2 cubic metres per horse-power hour), and costing £310 per annum more for attendance and repair, was more economical by nearly £3,000 a year than the modern compound engine. This is a very striking example of gas engine efficiency. In the course of further observations on the subject, Dr. Erhardt avers that modern gas engines have a mean mechanical efficiency of 82 per cent., so that each effective h.p. may be taken as the equivalent of 1.22 i.h.p. The consumption of gas in such engines, working at their maximum efficiency, will be not more than 2.8 cubic metres of gas per effective h.p. hour, the amount varying inversely with the load, so that when the engine is running at an efficiency of 50 per cent., the gas consumption will be 3.7 cubic metres. This authority has evidently a high opinion of gas as a motive power, alike as regards economy and ease of management. Similar opinions are entertained by many other experts, and indeed by an increasing number of power users, as may be gathered from the fact that gratifying dividends are being paid by gas engine manufacturing concerns, many of whom have long been growing increasingly busy, and are now more actively engaged than they have previously been. The various New Zealand agents for British-built gas engines and producer plants report great activity in the business, and it is evident that power users are awakening to the advantages to be gained from the utilisation of the cheapest form of power in the world.

What is said to be a record order for motive power has been placed with the American Locomotive Company by the Baltimore and Ohio Railroad. The amount of the order is stated to be in excess of £800,000, and includes 250 locomotives.