

# PROGRESS

With which is Incorporated

## THE SCIENTIFIC NEW ZEALANDER.

Devoted to the Interests of Industry, Architecture, Science, Engineering, Inventions, and Aerial Matters.

Official Organ of the Canterbury College Engineering Society, and the Wellington Philosophical Society.

VOL. VI.—No. 12. MONTHLY.]

WELLINGTON, N.Z., OCTOBER 2, 1911.

[PRICE: 9d. per copy; 7/6 per Annum post free, in advance.]

## Progress

### The Scientific New Zealander.

*Published Monthly by Harry H. Tombs, 10, Willis Street, Wellington, New Zealand.*

ANNUAL SUBSCRIPTIONS:—To any address 7/6, post free.

REMITTANCES should be made by Post Office or Money Order. All cheques, plus exchange, to be made payable to Harry H. Tombs, and sent direct to "PROGRESS" Office, P.O. Box 481, Wellington.

All communications to be addressed to "The Proprietor, "PROGRESS," 10, Willis Street, Wellington. Telephone 3296.

ADVERTISING RATES will be sent on application. The value of "PROGRESS" as an advertising medium is rapidly becoming recognized by advertisers. Circulation considered it is the cheapest advertising medium of its kind in the Dominion.

The Editor will at all times be glad to receive Illustrated Articles on subjects of interest for consideration, provided the articles are short and to the point, and the facts authentic.

Should subscribers continue to receive copies of this journal after expiry of current year, it will be accepted as an intimation that they are desirous of subscribing for a further period of twelve months.

In case of change of address, or irregularity of this paper's delivery, subscribers should send immediate notice.

## EDITORIAL COMMENT.

The Medical Congress now assembled at Sydney is destined to do some good work, in the right direction. In that direction, if one looks far enough ahead, one sees a most wonderful vista. Forty years ago medical science had advanced but little beyond the point where Hervey left it after his great discovery. To-day the increment of scientific knowledge is marvellous, and with that increment the art of the surgeon has kept pace fairly well. The king of the scientific situation has been and is, and ever will be the microbe. All illness is microbe, and every microbe has got his fatality just as every man was by the Shakers said to have his affinity. That is to say, for every microbe of the wrong sort there is one of the right sort. Disease being caused by the first kind, cure comes from the second, for when the right microbe is found he at once attacks the other and proves fatal to him, the result being recovery of the patient ill with the assault of the wrong microbe on his system. This truth was ascertained in a perfunctory sort of way, but remarkable for results, back in the Middle Ages, when the Turks found out that inoculation was a sure preventive of small pox.

While civilised Europe died of the scourge, the barbaric Turk enjoyed life immune altogether. Rabies microbes are now divided into right and wrong, and rabies, therefore, is cured where cure was once deemed impossible. The microbe of Typhoid has been provided with a fatality, with the result that thousands live where they used to die. Diphtheria is in the same state, and the right use of "serum" is a sovereign specific. Phthisis shows signs of coming into line, while millions are looking on interested to the point of fascination. Cancer, the most dread of all the scourges dominated by the microbe, is about to have a fatality in the shape of a microbe capable of "cultivation" to the right intensity. These are the things in sight of the probable end. In addition there are untold things in the region of possibility. Looking past them to the end of the great vista of the future, we see a world without disease, a race of beings stronger, healthier more perfect than anything ever dreamt of in these our days of degeneracy. With the help of the microbe we are going in that direction more and more rapidly from day to day, at a pace, in fact, which depends entirely on the medical profession. In its turn the medical profession depends entirely on the medical congress. For which reason mankind is so vitally interested in the Congress of Sydney. The men of a noble profession have met together to discuss the latest achievements in the war against the microbe world by the help of emissaries from that world itself. They will talk of microbes for weeks, their essays will be of radium and the X Rays. They will enlighten us about the true position of the famous Dr. Koch in the medical profession; they will have much to print about spine curvature and paralytics, and in connection with the first of these there may be some useful paper on a case which is making a sensation in Wellington at the present moment. In short, the Congress will take its place among Congresses, along with the threads of achievement reaching towards the well-healed future. There are many things wonderful in our day, things which to our forefathers would have appeared uncanny: things of the air and the water, men flying as the birds of the one and travelling like the fishes of the other; reaching forth to talk to one another across space without wire, and even able to talk at vast distances. There is such a thing, moreover, as leading the mind of another,

and such a thing as forcing others to your bidding. But nowhere is there such a marvellous record of achievement as there is in the microbe world. The manner in which man has come to understand the myriads of beings of the invisible world and to use them to counter-balance one another in their preying warfare upon man is as great a miracle as the miracles performed by the microbe world itself. What the end will be is clear enough—a dependable cure for every ill to which man's flesh is heir. And the road to the understanding of that great conclusion lies through the records of these congresses of the medical profession.

\* \* \*

When the water power scheme of the Government was made public last session there was, it was widely noticed a liberal reference to the proposal to establish factories for the making of nitrate from the nitrogen of the air by electric process, much in use elsewhere. The idea then seemed to be that in case no one wanted the electric power generated by the Government's scheme it would be possible to save the scheme by falling back on the manufacture of nitrates. Mr. Thomson, the member for Dunedin, who is well known in the scientific world and much admired there for his attainments had, we notice, something to say about this matter in his speech on the budget. He began by warning the Government that there could not be a greater mistake than to expect to make nitrates out of fag ends of power. He added that there would be no demand in this country, and probably none in Australia, for these fertilisers for some time to come, though no doubt in time they would be in demand. He also seemed to think that the process of manufacture leaves something yet to be desired. Now of course the Government scheme does not depend on fag ends of power. The idea was that in case the public did not take the power it could be used for this particular manufacture. Mr. Thomson said that substantial power would be required, nothing under five thousand to be depended upon in any one installation. But there are in the Dominion some four million horse-power available for electric conversion, 500,000 in the North Island, and 3,700,000 in the South Island. Of these there are in Tekapo Lake 550,000, Te Anau 750,000, Manapouri 420,000. These and many other powers were measured by Mr. Hay, and will be found by any