

on the site where they intended that industries should develop. As evidence of the success of their scheme the following facts bear witness. There is now a thriving township with established industries, each consuming heavy horse power, as for instance aluminum manufacture, 35,000 h.p.; pulp and paper, 14,000 h.p.; and carbide, 12,000 h.p. This company also supplies the town of Montreal, and possesses in all 675 miles of lines which transmit 105,000 h.p.

In California remarkable results have been obtained. In the year 1892 the total hydro-electric development was 634 h.p., but from this small beginning it has increased to 600,000 h.p. at the present time.

The enormous possibilities of production by hydro-electricity are forcibly brought home to one by examining the value of the output of any particular one manufacture. The one we have taken is cement. In 1896 the total output of cement handled by hydro-electric power was 100 tons while in 1913 the output was 1,030,000 tons of a total value of £1,550,000.

These few instances of what has been done in other countries should go far to prove our contention that the Dominion manufacturers have not been sufficiently insistent that attention should be given to our own natural resources. As we have before pointed out, it is only since the successful development of the Lake Coleridge scheme that the voice of the people has made itself heard with any degree of certainty as to its needs in this direction. But why have we waited for the perfecting of a belated scheme by a paternal Government when the evidence and experience of the other countries of the world have been at our disposal for the last twenty five years?

If evidence of the success of a hydro-electric scheme near home was wanted we have had the Dunedin-Waipori plant in operation now for some years, and although this installation is of course small when compared to the Lake Coleridge plant, still its evidence as a commercial possibility has long been established.

Whangarei, Wairau, and Waihi are all drawing power from hydro-electric plants at present, and there is no doubt that development in the future will be rapid, but the unfortunate part of it is that the people of the Dominion would seem to have wakened up to their long standing needs just at a time when overseas supplies in the shape of plant and material are practically impossible to get.

Neglecting powers below 1,000 h.p., New Zealand has roughly about 500,000 h.p. available in the North Island, and about 3,000,000 in the South Island. Lake Coleridge is already established in the South Island, and Government data are at present being collected for probably three schemes, viz.:—Auckland, Wellington and Hawkes Bay. Auckland will probably draw power from the Waikato—Wellington from the Makara Gorge, Shannon, or Hutt Rivers, and Hawkes Bay from Waikaremoana.

The possibilities of the development of our water power are admittedly enormous, and the cost of production in so far as it is affected by the cost of power, may be expected to recede in direct proportion to its employment. But it must be borne in

mind that only by organization and persistent effort will the manufacturers be able to impress on those who have assumed the development of the hydro-electric possibilities of the Dominion, that for a country with our natural resources we are already late.

Our 51st Competition

Design for a Motor House

This competition brought six drawings, viz.:—“Austin” by R. A. Patterson, with Government Architect, Wellington; “Desert Gold” by Nigel Wallmatt, with Messrs. Mahoney & Son of Auckland; “Concrete” by G. W. Haines, with Mr. J. S. Guthrie of Christchurch; “Maleesh” by H. L. White, with Mr. W. E. Bush (City Engineer), Auckland; “Efra” by E. E. West, with Messrs. Collins & Harman, Christchurch; and “Amateur” by Wm. Smith, Newtown, Wellington.

Mr. Wm. Feilding of Wellington who kindly set this subject reports as follows:—

“Six designs were submitted amongst which are at least three which show a high standard of work. Not all the competitors have minimised the risk of fire. Most of them have adopted reinforced concrete but details are generally lacking.

After some hesitation I place “Concrete” first and would specially mention “Maleesh,” “Desert Gold” and “Austin.”

Following is a brief criticism of each design.

“Amateur.” General conception good, but details not fully indicated. Only one section. Draughtsmanship not very neat and some lettering mis-spelt. (“louver ventilator,” “R.J.S.” instead of “R.S.J.”) and rather crude in execution. Reinforcement bars could be used instead of R.S. joists. Walls against bank not waterproofed.

“Maleesh.” Planning and execution quite good. Inch scale sections would have been more acceptable. Perhaps too many windows. A feature of this design is the artistic manner in which the sheet is arranged and finished. Another successful feature, (on paper) is the lay-out or scheme of approaches. The expense of excavating for and forming same would be very great, however, and where two cars are installed the “backing out” nuisance would still remain. The external treatment is simple. Some important details are omitted. For instance, what roofing material is intended? If the main walls are to be of brickwork, piers should be provided at sides of large openings, etc. Ventilation well thought out. One pit would be quite sufficient. The same remark applies to the wash basin.

“Austin.” Design and draughtsmanship good. Details, especially of reinforced concrete, well thought out and fully expressed. A fatal error in this plan is that one entrance is insufficient. Apparently the most skilful manoeuvring would be required to “back” two medium size cars into position. With two doors ingress and egress would be much easier, floor space could be slightly reduced and greater convenience would be obtained