Looking forward to the future, the Council views with great favour that portion of the report which speaks of a school of engineering. When the School of Mines is in full working order, it will be seen that a very small addition to the teaching staff of the University will enable the Council to impart a complete course of engineering knowledge—both theoretical and practical—except, of course, the skill of the workshop, which must be learned in the workshop, and can be learned nowhere else.

Several well-educated youths in this city are now engaged in the large engineering establishments, and these, we believe, would flock to the University if we could afford them the scientific instruction appropriate to their profession.

I have, &c.,
H. S. CHAPMAN,
Chancellor.

The Hon. the Minister of Education, Wellington.

Enclosure 1 in No. 21.

RESOLUTIONS of the UNIVERSITY of OTAGO.

School of Mines.

1. That the Council of the University of Otago approves of the regulations and plan of instruction for the School of Mines, as proposed by the Professorial Board.
2. That, inasmuch as the said plan of instruction requires several additions to the present teaching staff of the University—that is to say, one assistant mathematical lecturer, at a salary of £250 per annum; one lecturer on mining surveying, and one lecturer on applied mechanics, say at £100 per annum each—the Council do forthwith apply to the Government for an additional annual grant of £450, in order that the said School of Mines be placed in a state of efficiency and usefulness.
3. That the Council respectfully represent to the Government the importance of, and even the necessity for, a school of engineering; and this the University could effect by the addition to their teaching staff of a professorship of engineering.
4. That these resolutions be forwarded to the Hon. the Minister of Education, with a copy of the report of the Professorial Board on the School of Mines.

Enclosure 2 in No. 21.

Professor BLACK to the CHANCELLOR.

SIR,— Dunedin, 14th August, 1878.

I have the honor, on behalf of the Professorial Board, to submit, for the consideration of the Council, the following plan of the Otago School of Mines, which the Board has, after careful consideration, unanimously resolved to recommend for adoption by the Council. The plan is prefaced by an explanatory introduction by Professor Ulrich, the Director of the Mining School; and it is followed by a few observations on the part of the Board, to which it desires to invite the attention of the Council.

I have, &c.,
JAMES G. BLACK,
Chairman of the Professorial Board.

The Chancellor of the University of Otago.

Sub-Enclosure 1 to Enclosure 2 in No. 21.

PLAN OF THE OTAGO SCHOOL OF MINES.

INTRODUCTION by Professor ULRICH.

THE aim of mining is to extract useful minerals from the crust of the earth, and to treat and prepare them in such a manner that they can be profitably disposed of as articles of commerce. Mining science, in its widest sense, comprises, therefore, the knowledge of how useful minerals occur in nature, and of the principles and rules, founded upon science and experience, according to which they are prospected for, extracted from the ground, and conveyed out of the mines, as well as how certain hindrances and dangers always attending these kinds of work are successfully to be overcome. It further embraces the knowledge of how mines are surveyed, how the minerals won are mechanically separated from the waste—*i.e.*, dressed and concentrated—and finally how certain of them, by the aid of chemical processes, are prepared as articles of commerce.

To master all these different branches of technical science—taking into consideration the practical training each requires, independently of theoretical study—would evidently occupy a considerable period of a student's life. It has therefore been deemed advisable at European Schools of Mines—and the arrangement has since been adopted by those in America—to divide the field of mining science into a number of divisions, one or more of which the student may choose according to his predilection and capacity. Two main divisions of these are mining proper and metallurgy; more subordinate ones are mine-surveying and assaying; whilst the knowledge required for geological surveying falls naturally within the scope of the lecture courses, provision being made in these for lectures in palæontology and natural history. There is also in most German Mining Schools—on account of the mines being managed by Government—another main division, namely, "mining administration," for which no practical training is exacted, but which requires specially a study of the mining law, and, to a certain extent also that of the common law, of the country.

It is not possible, in lectures on any of the technical subjects above enumerated, so accurately to describe all features, machines, appliances, instruments, and operations, that they can at once be thoroughly understood, and, as regards the latter, be practically executed, by the student. The extent of the field, especially in mining and metallurgy, permits but a general description of the technical details, and the student, in order to gain a more accurate knowledge, must study for himself works and publications treating of the subject. Lectures are intended to prepare him properly for this study, and more especially to afford him a knowledge of the rules and reasons according to which operations