

dents of the Dominion. This new departure eliminates from the Department the undesirable element of political patronage. The best students stand the best chance of employment and advancement. Merit counts.

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#### NEW MACHINERY.

Two new machines are being installed in the Mechanical Laboratory of the Engineering Building that will assist greatly in the practical study of Thermodynamics.

One of these is a four cylinder, four cycle, 20 horse power engine made by the Buffalo Gasolene Motor Co. With this engine it is intended to use as fuel, gas, gasolene, and illuminating gas.

The other is an air compressor, built by the Canadian Rand Drill Co., Sherbrooke, Que. It will be used for experimental work, and also to supply compressed air for running rock drills. The specifications are as follows:

Compound steam, 9 inches h. p. and 16 inches l. p. cylinders with 12 inch stroke. Compound air, 14 inches l. p. and 9 inches h. p. cylinders and 12 inch stroke. Watertube intercoolers. Designed for terminal air pressure of 100 lbs. per sq. inch. Gardner governor with automatic air regulation. Indicated horse-power: 60. Speed: 160 revolutions per minute. Capacity: 341 cubic feet of free air per minute.

The compressor embodies the following features which heretofore it was impossible to demonstrate to the students: compound steam engine, condensing or non-condensing; Meyer adjustable cut-off valves; Corliss valve gear; spring balanced flyball governor; and two-stage air compressor with or without intercooler.

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In the last issue of the Journal reference was made in this column to the need of more accommodation for School of Mining students, and to the recent trip to Toronto of a deputation asking for government aid. Since then we have had a visit from the members of the Ontario Legislature, an account of which will appear elsewhere in this issue. From the favorable impression made, as evidenced by the after dinner speeches from M. P. P's at the banquet in Grant Hall, we feel assured that a good substantial grant will be voted this session to extend the buildings and add some much needed equipment.

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At the regular meeting of the Engineering Society, Friday, Feb. 1st, Prof. F. O. Willhofft gave an address on the subject of *Automobiles*. The general features of construction were outlined, and the extent to which the machines have come into use on the continent and in America. Mechanical difficulties have been overcome, but the tire problem is still unsolved. Rubber is very expensive, and as yet no substitute has been found. Needless to say, the lecture was much enjoyed. Professor Willhofft has promised to address the Society at some future time on details of automobile construction with lantern slide illustrations.