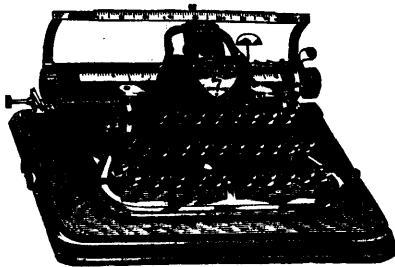


the method adopted by the M. R. Co., but a further step in advance has been taken, inasmuch as both direct & alternating current is generated by the same machine. The direct current passes direct from the generator to the line, & is employed to operate that portion of the road adjacent to the power-house. The alternating current, generated at low pressure, is stepped-up by means of transformers to a high voltage & transmitted to a sub-station 16 miles distant, where it passes through transformers & converters & goes to the line at low pressure direct current for operating that portion of the road remote from the power-house. It is admitted that this system of electrical generation & distribution has many advantages, as, for instance, making at once available direct current for use in the 3-wire system without passing through auxiliary machines. The alternating current, however, in order to be suitable for service at a distance, must be raised in pressure by means of transformers. This system is, therefore, open to the objection—perhaps over-balanced by its advantages—that it necessitates an expensive station equipment because of the rotary converters & transformers required for changing the pressure & kind of current. There is reason to expect that this object will eventually be overcome in some way, probably by the introduction of machines capable of generating both direct & alternating current at the desired pressure, or, in other words, by high voltage alternating & low voltage direct current generators. This would obviate the necessity for auxiliary apparatus in the generating station. The certainty of the rapid extension of inter-urban electric railways in this country makes of paramount importance the question of the most practicable & economical system of operation.—Canadian Electrical News.

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