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A COMBINED GAS AND STEAM ENGINE UNIT

NOTABLE UNDERTAKING INVOLVING TWO 42 x 72 IN. GAS CYLINDERS, ONE 36 x 72 IN. H.P. AND ONE 68 x 72 IN. L.P. STEAM CYLINDER TO DRIVE A COMMON SHAFT.

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WHEN the additions to the power plant of the Ford Motor Company, of Detroit, are completed there will be housed in one engine-room gas and steam engines capable of developing over 30,000 h.p., and the complete installation will embody many novel and interesting features.

air-compressor of the central port hurricane valve design. The company from which this engine was purchased was unable to fulfil its contract and the purchasers completed its construction. This unit proved satisfactory, but the phenomenal increase in business soon necessitated additional power. Another producer-gas engine of

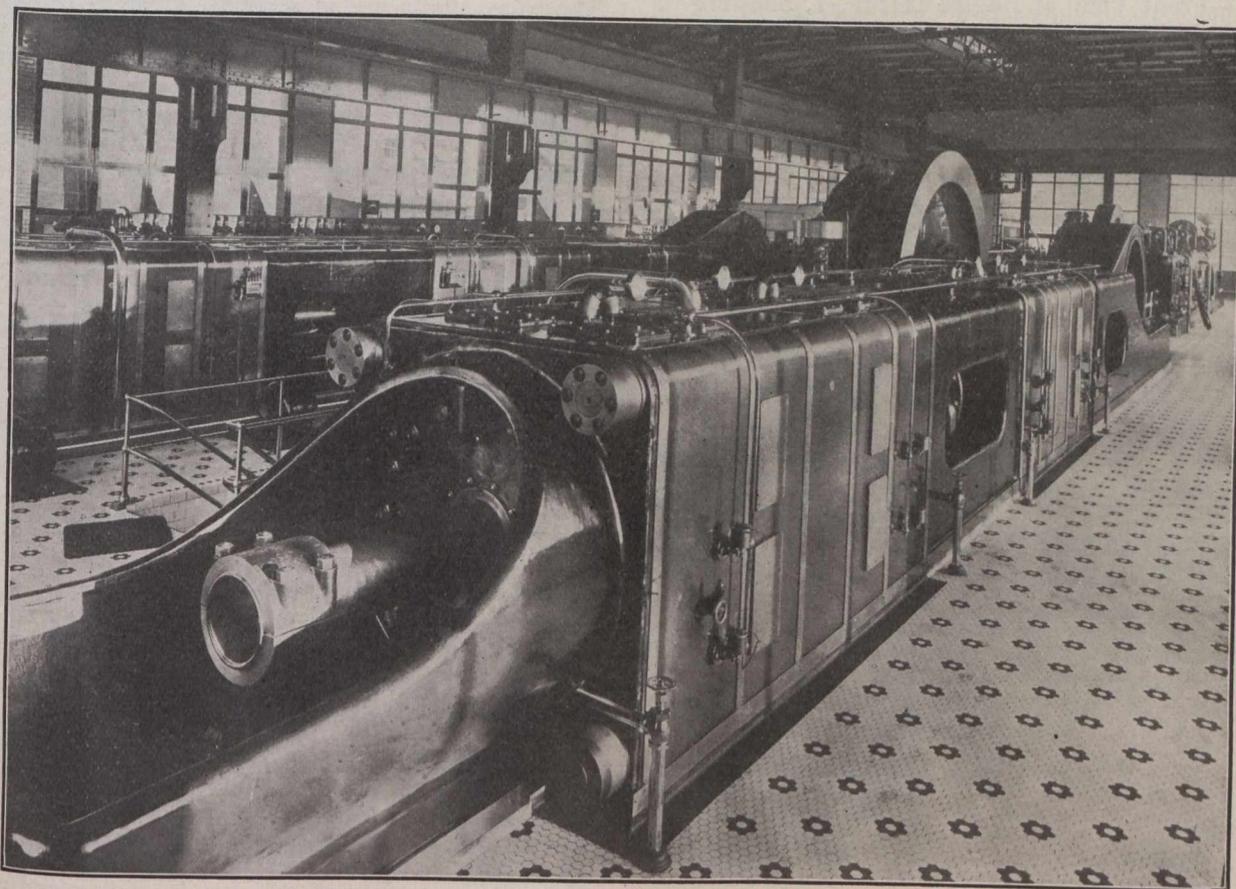


Fig. 1.—Side View, from Tail Rod End, of One of the Ford Motor Company's Engines.

When the plant was started the producer-gas engine was in great demand in the power field, and Henry Ford adopted this type of prime mover to operate his plant. His first gas engine was a 1,600 h.p., two-cylinder, double-acting tandem, having cylinders 35 in. diameter by 48 in. stroke, and operating at 100 r.p.m. This engine was direct-connected to an 850-Kw. Western Electric d.c. generator, and cross-connected to a 2,000-cu. ft.

greater capacity than any other internal combustion engine yet built in any country was decided upon. Edward Gray, the Ford mechanical engineer, designed this engine, embodying in it many special features which his many years' experience in gas engine design and operation suggested. It is what is called the one-story-and-basement type, with all the valve gear in the basement. There are 4 double-acting cylinders, 42 in. diam. by 72