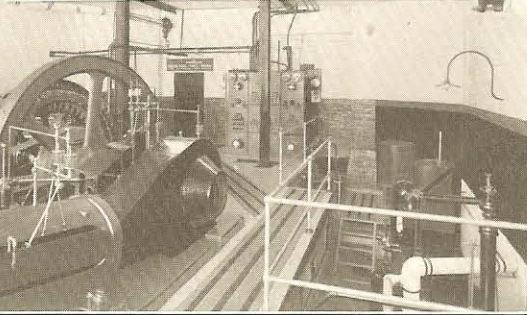
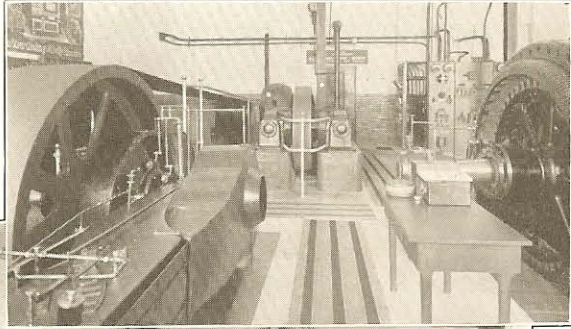
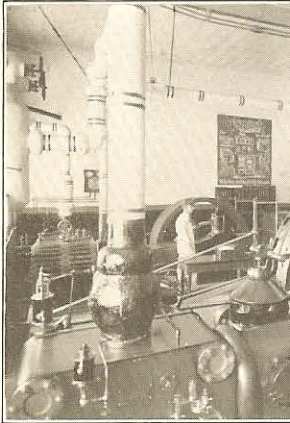


The MONARCH



MESSENGER

## Here is produced the power that makes MONARCH Malleable Ranges



The above pictures show one of the most efficient departments of the Malleable Iron Range Co., the engine and generator room.

Here there is generated the necessary electrical energy to drive the many motors of various sizes throughout the factory, which furnish power for the hundreds of machines used in making MONARCH Malleable Ranges. The motive power is supplied by two steam engines, one built as an integral part of the generator and the other connected with its generator by an immense belt. The direct connected unit in the foreground of the lower view is an alternating current, three phase, 60-cycle, 240 volt machine, of 150 K. V. A. capacity, and is driven by a 16 x 30 non-condensing Corliss engine. The belted unit is of the same capacity, but is driven by a Cross Compound Condensing Engine.

While these machines are the largest in the department, they are by no means the only ones. At the extreme right is shown a portion of the steam fire pump with a pumping capacity of one thousand gallons

per minute. Near this, and in the same pit are a number of boiler feed pumps, a motor driven centrifugal gas pump, used to operate the condenser, a small steam driven pump used to supply lubricating oil to the engine and a large vacuum pump used in connection with the factory heating system.

Another interesting machine which shows only in the upper view is a 12 x 7½ x 10 air compressor, which furnished the compressed air to the many appliances throughout the machine shop and foundry which are operated best by this power.

In this domain James R. Christ is king and he rules with an iron hand. No house-keeper with a newly scrubbed kitchen floor could be more particular than Jim to make every one wipe their feet at the threshold.

And it is a place of which he can be justly proud. Its spotless painted concrete floor is carpeted with cocoa matting in straight narrow paths. The walls are spotlessly white, with black wainscoting, and every bit of nickel, brass and polished steel shines like a mirror.