

Fig. 1503 W. E. — Class 150-pound Cast Steel Gate Valve with welding ends, outside screw rising stem, bolted flanged yoke and tapered solid wedge.

Fig. 241—Large 125-pound Iron Body Bronze Mounted Globe Valve. Made in sizes 2" to 16", inclusive. Has outside screw rising stem, bolted flanged yoke and regrindable, renewable bronze seat and disc.

Fig. 1793—Large 125-pound Iron Body Bronze Mounted Gate Valve. Made in sizes 2" to 30", inclusive. Has outside screw rising stem, bolted flanged yoke and tapered solid wedge. Tapered double wedge can be provided in sizes 2" to 12", inclusive.

POWELL

56

POWER • June 1948

POWER

LEIF W SWAIN, EDITOR • JUNE 1948 • ESTABLISHED IN 1882

Bright Power Future

ADDRESSING the recent Midwest Power Conference, A C Monteith of Westinghouse gave ample evidence that the power field offers a bright future to young engineers with brains, energy and vision. Let's view this future through his eyes and ours:

Will electricity become obsolete? No chance of that. Will its use grow? Tremendously. Figure it out for yourself—the strength of a horse for a whole hour for a cent or two—conveniently delivered when you want it and anywhere you can run a wire.

No wonder that even major depressions hardly dent the load-growth curve. When business hit the bottom in 1932 electrical use was down only 15 per cent from the lush days of 1929. And it had already climbed back to a new peak by 1935—six years ahead of the war-nourished business peak of 1941.

Some authorities predict that the present national generating capacity of 52 million kilowatts will climb to 92 million by 1957. Irresistible forces are pushing in that direction. Here are samples:

Some had feared that fluorescent lighting would be a load *reducer* because it consumed only half as much energy as filament lighting per unit of illumination. Yet just the opposite happened. Because the new source gave cheaper light, new installations went the limit in intensities—*often to six or ten times the previous incandescent levels*, thereby consuming three to five times the power.

Then again, adequate street lighting will boom as America learns the lesson of the Detroit experiment. When 300 miles of streets were adequately lighted, night traffic deaths dropped 80 per cent.

We all see what happens in the home—more and brighter lights—another radio or two—soon a television set. The housewife decides that electric refrigerator, vacuum cleaner and washing machine are not enough. She adds mangle, dishwasher, electric range, water heater, maybe even an electric blanket.

There's no end in sight, now that it takes only a minute of the wage earner's time to earn the price of a kilowatt-hour. It is easy to accept the prediction that this year's average domestic consumption of 1400 kw per wired home will double in ten years.

But industry is still the biggest load. Let's see what's ahead there. In factories, at today's pay rates, the hourly wage of a single worker will buy the electrical equivalent of the muscles of one thousand men laboring for one hour. No wonder production machines get bigger, run faster, take heavier cuts, use bigger motors and chew up power "like water." Who cares about the cost of an extra kilowatt-hour when human energy costs one thousand times as much?

Power is, and will remain, cheap enough for lavish use in devices for high-frequency heating, high-power welding, infrared heating, the reduction and clean melting of metals.

It should be clear that the young man who ties his life's work to power need never get caught trying to ride a dead horse.

Nor is there any danger that his initiative and engineering skills will grow flabby for lack of exercise. There are enough power engineering problems ahead to last a couple of lifetimes.