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Ray taught us a new manufacturing philosophy. He was the father of creative manufacturing.

He forcibly demonstrated to us...

...that reduced costs and increased business come by standardization.

He showed us...

...that 12 types of enclosing cases would do the job of 73.

...how to build a better toaster with 200 instead of 300 parts.

...how to cover the electric switch line with one-half the models, and to cover the complete fractional motor field with one-half the number of motors.

He taught us the science of the straight-line, self-contained manufacturing line.

He showed us how to reduce the movement of our refrigerator relay parts during manufacture, formerly totaling several hundred miles from plant to plant, to less than a mile.

He brought us full scale mechanization. He showed us...

...how to save millions of dollars in our Electronic Department through the use of automatic dip soldering as compared to the conventional method of using thousands of hands which has been standard practice in the industry since it began.

...how to assemble switches on special machines eliminating 75% of the labor cost.

...how to build fuses twice as fast with one-half the labor.

...how to make motor stators and rotors automatically giving us a tremendous lead over any other manufacturers in the motor business for years to come.

...how to harness, combine, and utilize standard and special-purpose machines to completely manufacture our rigid conduit from coiled steel strip at a rate of 300 ft. per minute with startling cost reductions.

He drove home to us the importance of locating our plants where practical near the source of raw material.

Under his guidance we learned to recognize inefficient operations, eliminate them and, through consolidation, to improve other operations.

We learned that high-speed low-cost manufacture and higher quality go hand in hand.

He taught us to critically analyze every item of material cost and every process against today's possibilities.

He taught us intolerance with anything that is wrong regardless of how firmly it had become entrenched.

The benefits of his work will still be accruing to the General Electric Company after all of us have been pensioners and are dead and gone.

M/

He brought us a new concept...

- ...of action and decision.
- ...of lower cost with more simplicity and higher quality.
- ...of the importance of creative manufacturing.
- ...of the interdependence of manufacturing, engineering, and management.
- ...of the use of extreme specialists wherever they are to be found.
- ...of objectively lowering costs regardless.
- ...of discontent with the status quo.
- ...of doing something although action was bitter to take.
- ...of setting impossible tasks, then accomplishing them.
- ...of willingness to challenge even the highest order if he didn't believe it was right.
- ...of quick movement when the company's interest demanded.
- ...of fearless company interest above all else.
- ...of pin pointing our collective endeavor toward a common overwhelming achievement.
- ...of courageous action when the company's interest was at stake.
- ...of building for tomorrow while the sun shines today.