

### THE FUTURE OF QUALITY CONTROL

SADE-Q

bу

W. A. Shewhart

Bell Telephone Laboratories Murray Hill New Jersey

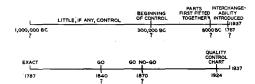
Talk before the Society for Statistical Quality Control, Newark, N.J., January 30, 1946.



1. 234 papers on quality control in three years 1943. 44, 45.

Many ABC's - most deal with inspection and production.

·2. Quality control a million years old.



Statistics entered in 1924.

# 3. Consumer wants

Research

Design

Development

Specification

Production

Inspection

Operational research

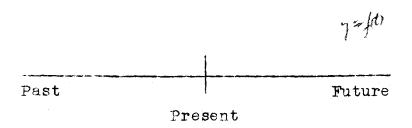
# The Future of Quality Control

What do you mean by quality control?

Two terms that are troublesome; before we can talk intelligibly on this topic it is necessary that we know what we mean by quality control.

# Quality

- I That which characterizes a thing itself independent of all other things and of human volition and interest.
- II That which characterizes a thing A in its relation to another thing B as a part of a whole and independent of human volition and interest.
- III That which makes a thing wantable by some one or more persons.



Tudestim Prop.

Human characteristics Time study Frequency of mistakes Output, etc.

Nonhuman " { Physical chemical cost } }

# Control

Target

What you do

Results of what you do.

# SADE-Q

<u>S</u>

Consumer preferences

Consumer Wants

Measurement by { verbal response physiological response

 $\overline{D}$ 

Original data as Evidence E

Prediction P

Degree of belief pb in prediction P based on evidence E

## Quality Assurance

E

Price-quality relationship.

## Consumer standards movement

ASA ASTM

#### Management

Definition - human and other elements. --->

# Scientific Control

II Ι III Hypothesis Experiment Test of hypothesis Specification Production Inspection Statistical Statistical Statistical test Design of of Hypothesis Hypothesis Experiment Executive Judicial Act Statute Act

Applicable to any measurable quantity.

I II III

Specification Production Inspection

### W. A. SHEWHART'S COLLECTION

"Management is the art and science of preparing, organizing, and directing human effort applied to control the forces and to utilize the materials of nature for the benefit of man."

ASME Transactions. 1913.

