

dustry. There are a few things in industry, perhaps, which will always require a stationary, permanent standard for their measurement, but most standards are progressive and in any rating plan nothing short of the Taylor Society conception of a standard should be considered. I quote Morris L. Cooke's *standard* definition:<sup>1</sup>

A standard under modern scientific management is simply a carefully thought out method of performing a function, or carefully drawn specifications covering an implement or some article or stores or product. The idea of perfection is not involved in standardization. The standard method of doing anything is simply the best method that can be devised at the time the standard is drawn. Standard specifications for materials simply cover all the points of possible variation which it is possible to cover at the time the specifications are drawn. Improvements in standards are wanted and adopted wherever they are found. There is absolutely nothing in standardization to preclude innovation. But, to protect standards from changes that are not in the direction of improvement, certain safeguards are erected. These safeguards protect standards from change for the sake of change. All that is demanded under modern scientific management is that a proposed change in a standard must be scrutinized as carefully as the standard was scrutinized prior to its adoption, and further, that this work be done by experts as competent to do it as were those who originally framed the standard. Standards adopted and protected in this way produce the best that is known at any one time. Standardization practiced in this way is a constant invitation to experimentation and improvement.

5. A method of rating the elements against each of these standards must be devised. Even with a carefully thought out standard to compare with, it will not be found simple to rate the existing conditions, and different elements will require varying formulae.

The elements selected to be rated must be unmistakably basic in character. There will be a great temptation to include the elements of new management technique which the engineer thinks all companies *ought* to use, but which, strange to say, they do not. The fact that many admittedly well-managed companies get along somehow without these things should be a sufficient deterrent—and though the engineer may consider them basic, he will quickly learn that his clients will not. Each component part should be one that is generally recognized as an integral part of *good* management.

The standards against which the elements are rated must be practical and capable of duplication under average conditions and circumstances. World's records and stunt performances must be rigidly eliminated.

The method of examination to discover existing conditions and the rating to determine relative efficiency must be economical. Time is an important element as well as cost; the work must be quickly and, at the same time, thoroughly done. Also the method must

be capable of application, without disturbance of either the routine operations or the morale of the workers—it must be systematized and cause as little trouble as an audit of the books.

The relative weighting of the factors and elements presents a puzzling problem at first, though this is not the really important question that it seems. Mitchell says<sup>2</sup> that the real problem in weighting is not to strive after literal exactness but to be conscientious and consistent and particularly to rationalize it and not leave it to chance.

Relative and rational weighting is more important than striving for an exactness which is probably not possible. Let your standards be "carefully thought out," the results of scientific research, and your measurement of existing conditions be accurate, and the exact measure of importance you attach to the item will not matter. For example, our standard on typing letters from shorthand notes is 200 square inches an hour. In one office we found twenty-five stenographers averaging five letters a day. A letter usually averages under fifteen square inches, and the work day was seven hours, therefore these stenographers wrote about 5 per cent of our standard. The management's discovery of this fact was of itself far more important than any figure we might attach to it to represent our ideas of its relative weight. And it was manifest also that the stenographers were not to blame, for no stenographer deliberately writes less than two words a minute or sits idle for more than six hours.

In each element we use a standard which we designate as The Best Known Practice and we define it as follows: The Best Known Practice is that which results in the highest degree of effectiveness attainable by an organization of normal persons. The phrase is not to be understood as signifying a degree of excellence obtainable only by famous experts, specialists, or persons with natural exceptional ability on any particular subject or operation. No "world's record" or anything remotely resembling it enters into the comparison. In short, The Best Known Practice may be defined as a high class result already in practice, which can be duplicated by any normal organization.

It will be seen that this definition accords with the general principle on which standards are to be determined and at the same time provides for a movable standard; as business progresses, the standard will move upward, just as standards of performances of all

<sup>1</sup> Bulletin No. 5, The Carnegie Foundation for the Advancement of Teaching.

<sup>2</sup> Bulletin of U. S. Bureau of Labor Statistics. Whole No. 173, p. 72.

kinds are progressively raised. It is a remarkable fact also, that while we have found a few instances where the Best Known Practice was equalled, we have not yet found an instance where our standards were shown to be too low—which confirms us in the knowledge that they are really scientific standards. For example, the records of clerical outputs so far have not averaged 60 per cent of our standards, yet each and every standard represents "a high glass result already in practice which can be duplicated by any normal organization."

### III. THE PLAN OF EXAMINATION AND RATING

We have divided the subject of Office Organization into 15 main divisions and 93 subdivisions, as follows:

- I. ARRANGEMENT OF OFFICE
  - Economical use of space
  - Direct flow of work
  - Adequate light, daylight and artificial
  - Adequate circulation aisles
  - Reduction of preventable noise
  - Adequate ventilation
  - Adequate drinking fountains
  - Adequate cloak rooms
  - Adequate toilet facilities
  - Adequate reception room for public
  - General appearance
- II. EQUIPMENT (DESKS, ETC.)
  - Adequacy for purpose
  - Sufficiency in number
  - Standardized as to size
  - Condition
  - Standardized as to appearance
- III. USE OF OFFICE MACHINERY
  - Best machine for purpose
  - Machinery profitably used
  - Machinery used where necessary
  - Machinery of modern character
- IV. CORRESPONDENCE
  - Clearness
  - Composition
  - Courtesy
  - Grammatical construction
  - Appearance
  - Production
- V. FILING
  - Economy of space
  - Work up to date
  - Accuracy
  - Value of filed material
  - Sufficient space
  - Adequate systems
  - Adequate custody
- VI. STOCKKEEPING
  - Economy of space
  - Location system
  - Order
  - Neatness
  - Issuing system
  - Control
  - Classification
  - Storage methods
  - Inventory system
- VII. INTERCOMMUNICATION
  - Telephone service
  - Clerks at desks
  - Messenger system
  - Necessary mechanical devices
- VIII. FORMS
  - Economy
  - Effectiveness for purpose
  - Suitable quality of paper
  - Suitable colors
  - Color schemes
  - Uniformity in size
  - Uniformity in color
  - Uniformity in shape
  - Uniformity in typography
- IX. ROUTINES AND METHODS
  - Routines:
    - Directness
    - Simplicity
    - Uniformity
    - Expedition
  - Methods:
    - Effectiveness
    - Simplicity
    - Uniformity
- X. CLERICAL OUTPUT
  - Quantity performed
  - Division of labor
  - Interruptions
- XI. CONTROL OF OUTPUT
  - Uninterrupted flow of work
  - Scheduling
  - Handling peaks
  - Working force well balanced
  - Adequate planning
  - Adequate records or reports
- XII. SALARY STANDARDS
  - Salaries not unnecessarily high
  - Standard salaries for similar positions
  - Salaries not below market
- XIII. TURNOVER OF EMPLOYEES
  - Length of service
  - Rate of turnover
- XIV. ORGANIZATION
  - Clearly defined lines of authority
  - Functionalization
  - Not too many departments under one head
  - Organization chart
  - Organization write-up
  - Standard practice instructions
- XV. PERSONNEL
  - Progressive records of employees' performance
  - Methods for testing employees' ability
  - Training methods
  - Employment methods
  - Discharging methods
  - Promotion methods
  - Methods for developing employees' versatility
  - Records of reasons for "quits"
  - Plan for determining causes of dissatisfaction
  - Vacation policy
  - Bonus, profit-sharing, or other plans of similar nature

Each of the fifteen major subjects has a maximum value of 100 points. The ninety-three subdivisions or elements of these main topics are weighted in accordance with their relative importance. Naturally some features of office practice are a great deal more important than others, but as these features are not of equal importance in all lines of business, we have