

activity with other organic elements in industry—as with organized labor; others, challenges to new lines of cooperation in investigation—such as study of the psychological elements in management.

THE most striking single feature of the meeting was the manifest interest in psychology as related to management, displayed at the Friday forenoon session. Evidence of that interest was called forth by John Williams' discussion of "Scientific Management and General Administrative Control," of which the latter part was a consideration of management's vital concern with psychology, because management is primarily the direction and supervision of individuals in cooperative activity. Mr. Williams departed from his usual custom—the reading of a paper almost mathematical in its precision—and "just let himself go" with the aid of brief notes. The result was an argument driven home by personality plus. The applause which followed was prolonged, a motion was carried which thanked him for a "significant" address, and a resolution was passed "that the Society recognize psychology as a major phase of the management problem." In connection with that resolution it was stated by someone that the Taylor Society would be the first management society so to do; but in that there was error. If our recollection is correct, it is on record that at least one other management association has passed a similar resolution; but it is not unlikely that time will prove that the Taylor Society passed such a resolution at the most "psychological moment" in the development of its work. At any rate, letters have been coming in from members who were at the meeting, asking for lists of works on psychology; and the presence, at the meeting of an eminent psychologist, who testified that the psychologists are ready to cooperate, assures an understanding on their part of the Taylor Society's desires and mental attitude, which understanding should promote cooperative effort.

UNDER the caption "Why the Taylor Society?" we find the following statement accompanying an exhaustive report of the January meeting, in *Chemical and Metallurgical Engineering*, February 4, 1924:

"Some of our readers may ask this question; and, as the connection between this society's activities and the field of "Chem. & Met." is not at once clear, we wish to call the reader's attention to the reason why

its activities are worth study. This is a period characterized by a hard, competitive market—a buyers' market. And the plants that are doing the best percentage business in the country in the face of this market are the scientifically managed plants. Scientific management is a universally applicable philosophy, not a circumscribed mechanism of but narrow utility. It is as helpful to a chemical plant as it is to a machine shop. And where can we better go to find out about it than to that organization, the members of which make it a lifetime study—the Taylor Society?—Editor."

Fondation Michelin

FOLLOWING is a translation of an official statement of the objects and activities of the French Committee on Scientific Management founded by M. M. Michelin—*Comité d'Organisation Rationnelle (Système Taylor) Fondation Michelin*:

"M. M. Michelin, convinced of the importance of the new methods of work inaugurated in the United States by Frederick W. Taylor, have decided to contribute annually a considerable sum for the extension of the knowledge of these methods among young French engineers.

"These annual contributions will be in charge of a Committee of which the Presidency has been accepted by M. Le Chatelier, Inspector General of Mines. This Committee will utilize these contributions in such manner as best to secure the results desired. The Committee desires to interest particularly the students of various schools of applied arts associated with l'Ecole Polytechnique et des Ecoles Supérieures (Mines, Ponts et Chaussées, Génie Maritime, Manufactures de L'Etat, Postes et Télégraphes, Poudres et Salpêtres, Artilleries Navale, Ecole Supérieure d'Electricité, Ecole Supérieure d'Aéronautique et de Constructions Mécaniques).

"The funds put at the disposition of the Committee are used principally as follows:

- "1. For conferences, to the organization and conduct of which M. M. de Freminville and Nusbaumer, members of the Taylor Society, have volunteered to give their particular attention;
- "2. For a library containing French and foreign books, pamphlets and periodicals pertaining to the field of organization and management;
- "3. For practical demonstrations of time study methods;
- "4. For organized visits to industrial plants having

noteworthy methods of organization and management; and eventually for the subsidizing of missions to inspect management methods in foreign countries.

"The Committee aims particularly to promote among young French engineers a knowledge of the best in scientific management practice; to publish syllabi, papers, discussions and reports of missions; to translate the leading foreign books and pamphlets pertaining to management; and to offer attractive prizes to young engineers who make the best reports concerning their observations in visits to industrial plants.

"The results which have been obtained during the five years of the existence of the Committee are highly satisfactory, and it is indisputable that, thanks to the activity of the Committee, a large number of young engineers have been attracted to, and interested in, the philosophy and methods of management developed by Taylor and his associates."

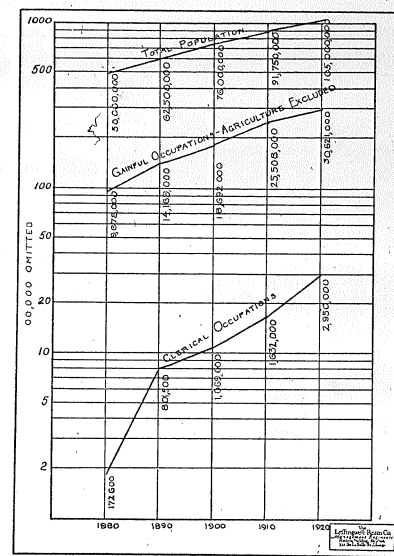
Waste in Office Work

DURING the past forty years there has been a startling growth in the number of those engaged in clerical occupations.¹ As will be seen by the accompanying chart, the actual number of clerks has increased seventeen times, while the number of all "gainful occupations" (agriculture excluded) has increased but little more than three times—from 9,678,000 to 30,621,000. The population during this period has only slightly more than doubled.

If the curves of "gainful occupations" and "clerical occupations" shown on the chart are projected on a line based on the average growth of the past twenty years, the two lines will meet in 1970; that is to say, apparently in forty-six years all occupations will be clerical. This suggestion is, of course, absurd, but the present direction of the curve is sufficiently startling to cause managers to stop and consider, for it may explain in part "where the profits went."

In the eighties began the trend toward modern-scale production and the entry of the United States into the world market for the competitive sale of manufactures, and it was then found that by the addition of clerical, or so-called "non-productive" labor, the productivity of the remainder of the workers could be increased. This accounts to a large degree for the big jump in the figures between 1880 and 1890. From that year to 1900 there is a lag in the curve, but in each subsequent decade there is a decided rise. What is the explanation?

¹Desk workers, etc.; not sales persons.



Comparative Rates of Increase of Clerical Occupations

No doubt there are some who will assert that the modern methods of factory production control are responsible, and who will blame Scientific Management for the rapid increase of "overhead." But those who do so are without a knowledge of the facts. In the first place a lamentably small percentage of businesses are scientifically managed, therefore this could not possibly account for even a small part of the increase. In the second place, that increase is by no means confined to clerks in processing departments of manufacturing plants. For example, there were in 1880 but 10,000 bookkeepers, accountants and clerks in all banks in the United States, while today there are over 30,000 banks in the country, and half a dozen large New York banks have in excess of 1,000 clerks each. By far the largest increase has been in sales and sales promotion, and financial and commercial activities.

One or two examples that came recently under my observation illustrate this. In one scientifically managed office with three hundred clerks, only 16 per cent of them are connected with the works management, and the ratio is about one such clerk to ten employees in the works. This ratio is larger than might be necessary in other lines, because the processing of this