# Bulletin of The Society to Promote the Science of Management

# DECEMBER, 1914

# No. 1

# **OFFICERS OF THE SOCIETY**

**President** (1914-15) Harlow S. Person, Hanover, N. H. **Vice-President** (1913-14) Wilfred Lewis, 18th & Hamilton Sts., Philadelphia, Pa.

- Vice-President (1914-15) Morris L. Cooke, City Hall, Philadelphia, Pa.
- Secretary (1914-15) Robert T. Kent, 64 Orange Road, Montclair, N. J.
- **Treasurer** (1914-15) H. K. Hathaway, 18th & Hamilton Sts., Philadelphia, Pa.

# **MEMBERS OF THE GOVERNING BOARD**

All the Officers, *ex-officio* Henry P. Kendall, (1913-14) Norwood, Mass. Arthur E. Barter, (1914-15) Norwood, Mass.

### **MEMBERSHIP COMMITTEE**

H. V. R. Scheel, Brighton Mills, Passaic, N. J.
C. N. Lauer, 605 Chestnut St., Philadelphia, Pa.
M. 1. Cooke, City Hall, Philadelphia, Pa.
F. A. Parkhurst, 29 Alger Ave., Detroit, Mich.
Wilfred Lewis, 18th & Hamilton Sts., Philadelphia, Pa.
Harlow S. Person, *ex-officio*

# MEMBERSHIP OF THE SOCIETY

**Honorary Member** 

Taylor, Frederick W., Chestnut Hill, Philadelphia, Pa.

#### Members

Aldrich, John G., (June, 1913) New England Butt Co., Providence, R. I.

- Bates, D. M., (Dec., 1912) Lewiston Bleachery & Dye Works, Lewiston, Me.
- Babcock, Geo. D., (Dec., 1912) H. H. Franklin Mfg. Co., Syracuse, N. Y.
- Barth, Carl G., (Dec., 1912) 6151 Columbia Ave., Philadelphia, Pa.
- Barter, A. E., (Dec., 1912) Plimpton Press, Norwood, Mass.
- Cooke, Morris L., (Dec., 1912) City Hall, Philadelphia, Pa.
- Day, Charles, (Dec., 1912) 611 Chestnut St., Philadelphia, Pa.
- Diemer, Hugo, (Dec., 1912) Penna. State Coilege, State College, Pa.
- Dodge, James M., (Dec., 1912) Link-Belt Co., Philadelphia, Pa.
- Gilbreth, Frank B., (Dec., 1912) 77 Brown St., Providence,
- R. I. Godfrey, Hollis, (Dec., 1912) Drexel Institute, Philadelphia, Pa. Hathaway, H. K., (Dec., 1912) 5027 Schuyler St., Philadelphia,
- Pa.
- Kelly, Timothy, (Dec., 1912) Brighton Mills, Passaic, N. J. Kendall, H. P., (Dec., 1912) Plimpton Press, Norwood, Mass. Lauer, Conrad, (Dec., 1912) 611 Chestnut St., Philadelphia, Pa. Lewis, Wilfred, (Dec., 1912) Tabor Mfg. Co., Philadelphia, Pa. Lichtner, W. O., (Dec., 1912) Newton Highlands, Mass.

- Lyall, Wm. L., (Dec., 1912) Brighton Mills, Passaic, N. J. Merrick, Dwight V., (Dec., 1912) 34 Gramercy Park, New York, N.Y.
- Noyes, Henry, (Nov., 1913) German-American Button Co., Rochester, N. Y.
- Palen, William D., Uune, 1913) 38 E. Washington Lane, Philadelphia, Pa.
- Parkhurst, F. A., (Dec., 1912) 29 Alger Ave., Detroit, Mich.
- Person, H. S., (Dec., 1912) Dartsmouth College, Hanover, N. H.
- Regan, J. C., (Dec., 1912) Yale & Towne Mfg. Co., Stamford, Conn.
- Scheel, H. V. R., (Dec., 1912) Brighton Mills, Passaic, N. J.
- Schwartz, Jr., C. W., (Dec., 1912) West Walnut Lane, Philadelphia, Pa.
- Tabor, Leroy, (June, 1913) Tabor Mfg. Co., Philadelphia, Pa.
- Thompson, Sanford E., (Dec., 1912) Newto\_11'Highlands, :\Jass.

Thompson, C. Bertrand, (Nov., 1913) 171 Hemenway St., Boston, Mass.

Tyler, Victor M., (June, 1913) Acme Wire Co., New Haven, Conn.

#### **Associate Members**

Arkell, Bartlett, (Dec., 1912) 95 Broad St., New York, N. Y.

Cleveland, Dr. F. A., (Dec., 1912) White House, Washington, D. C.

- Cook, Lieut. Com. A. Merriam, (Dec., 1912) 604 Dickson Bldg., Norfolk, Va.
- Dart, William Cary, (June, 1913) 16 Stimson Ave., Providence, R. I. Galloway, Dr. Lee, (Nov., 1913) New York University School,
- Washington Square, New York, N. Y. Keeley, R. R., (Dec., 1912) 1702 1'.1t. Vernon St., Philadelphia, Pa.
- Keeley, K. K., (Dec., 1912) 1102 1111 Verholt St., Filladelpha, Fa Kent, Robert T., (Dec., 1912) 64 Orange Road, Montclair, N.J.

Kent, William, (Dec., 1912) 64 Orange Road, Montclair, N.J.

Langley, Ralph \\'., (June, 1913) Acme Wire Co., New Haven, Conn.

McGregor, Prof. J. S., (Dec., 1912) Dept. of Mechanical Engineering, Columbia University, New York, N. Y.

Mixter, Charles W., (Dec., 1912) 313 York St., New Haven, Conn.

- Robinson, Prof. Edw., (June, 1913) University of Vermont, Burlington, Vt.
- Williams, John H., (Dec., 1912) 46 East 41st St., New York, N. Y.

#### **Junior Members**

- Adam, W. J., (Dec., 1912) Robert Gair Co., Brooklyn, N. Y. Benedict, H. G., (Dec., 1912) County St., Waukegan, Ill.
- Brighty, Jr., Ralph, (Dec., 1912) Swift Canadian Co., Edmonton, Alta., Canada.
- Dowd, M. S., (Dec., 1912) Herrmann, Aukam & Co., South River, N. J.
- Fraser, R. B., (June, 1913) Sewell-Clapp Envelope Co., Chicago, Ill.
- Goodell, Francis, (June, 1913) 4432 Chestnut St., Philadelphia, Pa.
- Green, Arthur B., (June, 1913) S. D. Warren & Co., Cumberland Mills, Me.

- Hemmerly, Wm. D., (June, 1913) Whitneyville, Box 13, New Haven, Conn.
- Laine, W. B., (Dec., 1912) American Tobacco Co., 111 Fifth Ave., New York, N. Y.
- Lochery, Charles E., (Dec., 1912) 20 Central St., Somerville, Mass.
- Miller, Ernest P., (Dec., 1912) 408 !\fain St., Fitchburg, Mass. Northeim, Frank E., (Dec., 1912) 5040 Osage Ave., W. Philadelphia, Pa.
- Rockwell, Willard F., (Dec., 1912) 870 South St., Roslindale, Mass. Shelton, Henry Wood, (Dec., 1912) Hanover, N. H.
- Shipley, Albert R., (June, 1913) New England Butt Co., Providence, R. I.
- Vaughan, Aubrey W., (Dec., 1912) American Optical Co., South Bridge, Mass.

Whitaker, s: Edgar, (June, 1913) 180 Albert Ave., Edgewood, R.I.

#### FORMER MEETINGS OF THE SOCIETY

- The following is a list of the regular formal meetings of the Society:
- December 4, 1911, Hotel Astor, New York, Formal Organization Meeting
- May 30, 1911, Chamber of Commerce, Cleveland, Ohio.

June 28, 1912, Tremont Temple, Boston, Mass.

Nov. 7, 1912, Keen's Chop House, New York.

Dec, 5, 1912, Keen's Chop House, New York.

Jan. 17, 1913, Engineers' Club, Philadelphia, Pa.

March 21, 1913, Keen's Chop House, New York.

June 6, 1913, Bellevue Stratford Hotel, Philadelphia, Pa.

April 1, 1914, Hotel Woodstock, New York. 30

May 16, 1914, Engineers' Club, Boston, Mass.

Oct. 24, 1914, Engineers' Club, Philadelphia, Pa.

In addition there have been several informal meetings held at irregular intervals of which no record was kept, and at which no minutes were taken.

#### PROGRAM FOR THE ANNUAL MEETING

Friday, December 4, and Saturday, December 5, 1914 Engineering Societies Building, 29 W. 39th St. New York

#### **General Subject: Management and Labor**

#### FRIDAY, DECEMBER 4

9:30 A.M.	Business Meeting
10:30 A.M.	(a) The Function of the Industrial Counselor
	(b) Possible Relations of Scientific
	Management and Labor Unions
	By Robert G. Valentine, Industrial Counselor, Boston
	Discussion opened by Henry P. Kendall, The Plimpton Press, Norwood, Mass.

1:00 P.M. Luncheon at Keene's Chop House

2:30 P.M.	The Function of the Supervisor of Personnel
	By Ernest M. Hopkins, Supervisor Personnel, The Curtis Pub. Co., Philadelphia, formerly with Willett, Sears, & Co., Wm. Filene's Sons Co., Western Electric Co., New York
	Discussion opened by Morris L. Cooke, Director of Public Works, Philadelphia
6:30 P.M.	Dinner at Engineers' Club
8:15 P.M.	Round Table Discussion of Systems of Wage Payment
	Opened by Charles W. Mixter: "A Proposed

#### **COMMENT AND NEWS**

Modification of Task and Bonus"

At the Philadelphia meeting of the Society on October 24th, the Governing Board decided that there should be published, at more or less regular intervals, a bulletin, or news letter, containing matters of interest to the members, including brief reports of the various meetings, items of information regarding the work of the various committees, lists of members available for positions and lists of opportunities open to members. Any member who has information of the above character to put before the Society, is requested to communicate with the Secretary who will be glad to incorporate it in the succeeding news letter.

#### =========

The responses to the circular letter sent out by President Person requesting information as to the work and desires of the members have not been as voluminous as they might be. Those members who have responded to the questions propounded in the circular letter have given some excellent ideas for furthering the work of the Society. If the officers are to render the best service to the Society, they must have the co-operation of the members. The fuller the responses to the questions in the circular letter, the better able will the officers be to arrange meetings and organize researches which will prove of the greatest value to the Society at large. Those who have not already done so are urged to forward the replies to the circular at the earliest possible moment.

A campaign to increase the membership of the Society should be undertaken at an early date. There are doubtless men employed in the planning departments of factories of many members who would be valuable additions to the Society. The Secretary will be glad to forward application blanks to any men whose names may be suggested to him by the members.

#### =========

The Philadelphia meeting, held at the Engineers' Club, was a great success. At the afternoon session, Mr. Frederick W. Taylor addressed the Society on the subject of the relation of the labor unions to scientific management. An abstract of Mr. Taylor's address appears upon page 3 of this bulletin.

Following Mr. Taylor's address, a round-table discussion on the progress of the scientific management movement presented numerous interesting phases of scientific management.

At the evening session, Mr. H. W. Brown of the Tabor Mfg. Co., Philadelphia, Pa., presented an able paper upon the adaptation of the principles of the Taylor system to the sales force of that company. Mr. Brown's paper was illustrated with lantern slides, and together with the discussion which followed, indicated that the sales force is just as susceptible to improvement by the application of scientific methods as are the shop processes. A synopsis of Mr. Brown's paper is given on page 4.

#### A WORD FROM THE PRESIDENT

Is this Society a mechanism or an organism? It makes a vast difference which. A mechanism is a whole made up of parts which function together because of some external force applied, an engine, a dynamo, a watch. An organism is a whole made up of parts which function together because of a force contained within the parts, - a tree, a human being, a nation.

Now a club or a society like this must be an organism to live and justify its existence. It cannot live as a mechanism receiving energy elsewhere than from within itself. Each part must contribute energy to all parts as well as receive it from all parts. Every member of the society must contribute his share. All need not contribute alike, but each must give according to his opportunity. Of what specific things may this contributing consist? The payment of dues, attendance at the meetings, the giving of addresses and reports, participation in discussions, co-operation in experiment, the sending of news and other items for this bulletin, answering to president's circular letters, making all kinds of suggestions, securing new members, etc.

Wake up, members, wake up! Let us make the society an organism!

H.S. PERSON.

#### SCIENTIFIC MANAGEMENT AND LABOR UNIONS<sup>1</sup> By Frederick W. Taylor

===========

<sup>1</sup>Abstract of an address at the Philadelphia Meeting, Oct. 24, 1914.

I had this summer a conference with Mr. Frankfurter, Professor of Humane Law at Harvard University, Mr. Valentine, Industrial Counselor, Mr. Kendall of the Plimpton Press, and Mr. King of the McElwain Shoe Co., on the subject of human rights. Messrs. Frankfurter and Valentine arraigned scientific management on the ground that it did not recognize the fact that unions arc here to stay, and that while they exercise the greatest power in behalf of the laboring people, scientific management is doing nothing to aid them in the work which they are undertaking. They failed to understand why the exponents of scientific management could not co-operate with the unions without risk to themselves in promoting scientific management, and why much more could not be accomplished with such co-operation of the unions.

I took issue with the arraignment, stating that we had never opposed the unions in anything they are doing for human rights, for scientific management is working for everything good which the unions want. There are two particular reasons why we oppose the unions, their demand for a restricted output and their demand for collective bargaining. There is not a union in the United States which does not demand these two things.

It is an economic fact that increased wages and general greater prosperity can come only with increased output. The unions fight exactly that principle. They must agree upon increased output before we can co-operate with them. They would set the standard for a trade according to the worst man in the trade, not according to the normal man of that trade. According to that principle we would have to set the standard for a truck horse 'according to the capacity of the smallest donkey, instead of according to the capacity of a normal truck horse. It is the workmen themselves who suffer by such absurd standardizations.

Mr. Frankfurter argued that an entirely new set of union men are coming in. They may be coming but we are not willing to acknowledge that they are here. A union of workmen who will not restrict output is what we want. We are with union men of that character. If unions will compel their members to do a full day's work and compel every man in the union to learn his trade, then we will be with them.

With regard to collective bargaining Professor Frankfurter argued that workmen have no part in the setting of wages or of tasks. Men object to being brought under shop laws which they have no part in making. I replied by asking what proportion of the laws concerning which Professor Frankfurter lectures have been made by us who Jive under them. Every individual cannot take part in making every law.

Certain types of laws are too complex for the person of average experience to decide upon. Laws concerning divorce, marriage, assault, etc., the average man can pass upon because they are based upon facts of average experience. Other laws, based upon unusual experience, must be worked out by experts. Such are the laws determining wages. The task which a good man in a trade can perform and the wage he should receive for performing that task are matters which can be determined by expert investigation and should be so determined. They are not subjects for collective bargaining any more than the determination of the hour at which the sun will rise to-morrow.

"But," objects Mr. Frankfurter, "the workmen have no part in the appointment of these experts. We ought to have half the say. The unions would be willing to pay half the wages of experts." Any company that has any sense at all would be delighted to have the union appoint an expert and the company would be willing to pay the wages, for we are so anxious to discover the facts that we do not care where the expert comes from, because the laws which he makes must be true laws and must protect the expert from the union. It is not a question of who you are. Edison discovered the incandescent light. He was not appointed by anyone but he was the discoverer of one of the greatest of all things. There was no question as to who he was or whether he was a member of a union. The man who discovers facts and brings them to the world is an expert. He is a discoverer. It is of no importance who appoints him. The world is looking for him. But the expert cannot be a faker. He need not come from any college or from any clique; however, he must be the highest type of man.

If the unions will take up the education of their members, it will be a step in the right direction. They will have to take this step before we can co-operate with them. Instead of preparing for war they must try to promote working conditions which render possible higher wages.

The unions have done an immense amount of good. Unions have made better working conditions. They have stopped great injustices in the trades and for that they deserve commendation. Because a man points out that they are doing a few things that arc wrong it does not mean that he docs not tolerate anything that they are doing.

==========

#### SCIENTIFIC MANAGEMENT IN THE SALES DEPARTMENT

#### By H.W. Brown of the Tabor Mfg. Co., Philadelphia

Formerly each salesman was given a certain territory, and as is customary practice, was allowed to cover it as he pleased. An investigation of each salesman's territory and reports showed that the salesmen were reaching but a fraction of the prospects in their respective territories.

To date, the application of scientific management principles consist in the development of a routing system with a moderate attempt to set tasks for the salesmen in that they are given a certain number of calls to make in each town that they visit, which calls must be made within the period allotted for the salesman's stay in that territory. The basis of the system is a route map showing the most convenient routes by which the salesmen can reach the different towns in his territory, these routes being arranged not only in reference to the geographical situation of the various cities to be visited, but with regard to the railroad connections both for entering and leaving the town. Thus, although one town might logically from its geographical position be on the same route with a nearby town, the train connections between the two might easily be such as to render it advisable to place the town upon an entirely different route.

The several possible customers in each town are listed upon report blanks, which contain the essential information which it is necessary for the home office to have regarding the customer. Among this information there is included the names of the various officials of the company with whom the salesmen can do business, number of men employed, nature of product, character of equipment in the factory, etc. Blank spaces are provided with appropriate notations, so that the salesmen will give to the home office exactly the information it needs without omitting anything important and yet omitting all matter irrelevant to the subject of making sales. Attached to the report blanks is a tickler slip on which is entered by the salesmen the time at which the prospects should be interviewed attain. The tickler slip is filed in the home office to come up at the proper time and indicate to the office that the salesman should be routed so as to call on that particular prospect at about the time needed. The cards are posted upon a bulletin board in the home office representing the "jobs ahead" exactly as jobs ahead arc represented upon the shop bulletin board. At the time that the salesman should visit the prospect on the given route, the cards for this route are taken from the bulletin board, at the same time as the series of slips giving the salesman's address and work for the next two or three days are posted, so that it is always possible for the office to get in touch with him, if necessary, at any time during his trip.

The salesman's reports, which afterwards become the cards upon the bulletin board, are filed in the envelope which carries upon its face a duplicate of the information on the card. Thus, when the cards are forwarded to the salesman as his order to start upon a trip, the office still retains in its possession all the information relating to the prospects which the salesman has. The system is extremely flexible and is so arranged that a salesman may be stopped at any point in his trip and started upon another route to cover an emergency, which may have arisen after he started on the trip originally planned. When this event takes place, the salesman returns to the office all the cards relating to the prospects which he has not visited, and the office arranges a new route for him which will include those possible customers at the earliest practicable date. The clerical labor involved in the routing of salesmen by this method consists of a stenographer and a boy. The cost is certainly no more, and is, probably less, than the former methods of handling salesmen, inasmuch as the amount of high priced executive's time which must be devoted to the sales department is much diminished.

Considering the greater number of customers visited and the natural increase in sales which should result from the greater activity of the sales force, the cost per sale of running the sales department should be materially diminished. Unfortunately the business situation in the country has not been such since this system was instituted as to exhibit the full possibilities of it, and therefore comparisons between it and the former methods of handling salesmen are not possible.

The bonus system takes into account a number of factors, among them the number of calls made per day, the closeness with which the calls are kept to schedule, the amount of business secured, etc. This feature of the work has been developed to a smaller extent than the routing and scheduling, although it is thought that it is capable of much further extension. It is felt that the application of the principles of scientific management to sales work is hardly started as yet, and that it is capable of extremely wide development.

Republished as part of the SAM Wisdom Project

# SAM WISDOM PROJECT

The *Society for Advancement of Management Wisdom Project* is a long-term endeavor of the organization to preserve and disseminate management wisdom. Given SAM's extensive history beginning with our founding in 1912, we are in a unique position to take on this important work. Our archives are rich with the voices of past leaders from a wide variety of contexts and across multiple eras of transformative change.

The *SAM Wisdom Project* brings together a carefully curated collection of sources representative of management's wide influences including philosophy, science, psychology, politics, and technology. It embodies the insights and contributions from distinguished scholars to the unsung heroes of cross-sections of history, reflecting a panoramic view of the global evolution of management science.