which are maturing in the minds of the members. The problem thus defined will become the basis of discussion at the session of tomorrow forenoon, and further clarified by the discussion, will become the motive for decisions at the afternoon session.

The opportunities of the Society may be considered from the following points of view: the obligations of the Society to its members individually; the obligations of the Society to the memory of the great man by whose name it is distinguished; and the obligations of the Society to industry, to government, to the world of affairs. Throughout the entire discussion the master point of view must be that this is a Society specializingoin the study of organization and management as a factor in group activity.

The most satisfactory approach to a consideration of the obligations of the Society to its members is through an analysis of the respective interests of the members in the study of organization and management. That all have such interests is proved by the existence of the Society. But the several interests are not identical. On the one hand we have the young man, learning how, for instance, to make time-studies or classify stores. His present interest is to learn to know what is the best technique and how to become master of it. His future interests are important but they are not dominant in his mind at present. On the other hand we have the owner and responsible manager of half a dozen plants. He is not primarily and directly interested in technique; he leaves to others associated with himself interest and proficiency in that; he is concerned with the industrial significance of scientific management and the bearing of that significance upon the developing policy of the management of his plants. Between these two extremes are individuals with many varieties of interest in scientific management. It will probably not be misleading to classify all members into five outstanding types, understanding that the members representing any type differ one from another in the combinations of elements which make up their interests. These types are:

- 1. The young man referred to above who is just beginning his apprenticeship under a master, and is concentrating at present on learning the principles and mastering the technique of scientific management.
- 2. The consulting engineer in management whose

particular genius leads him to center his interest upon the development of technique in its higher forms, and who gives relatively less attention to the social conditions of the application of his science and his art.

- 3. The manager of the plant in which scientific management has been applied, who is himself not a technician but who, understanding and convinced of the soundness of the principles and of the art, has engaged experts to apply them, is satisfied with the results and desires more intense and more perfect application. He is primarily concerned with results as manifested both in profits and in the influence on the elements which it is his function to combine in the processes of production. Rev is, for instance, concerned with the reaction of labor to the new form of management, and with the tendencies which are to condition the future cooperation of labor in the productive processes of his business.
- 4. The consulting engineer in management who combines the characteristics of the technician and of the administrator. He cooperates with the specialist in the perfection of technique and uses the more perfect methods when the specialist has devised them; he cooperates with the manager who retains him in solving the broader problems of the business and studies with him the influence of the new management on those broader problems. He could be either consulting engineer or manager; in fact he is likely to be a consulting engineer who has become manager, or a manager who has become consulting engineer.
- 5. The fifth type is made up of those whose general interests, previous experiences, temperaments, or combinations of these, lead them to develop an interest in scientific management as a factor in industrial and social progress. The owner of the numerous plants referred to above trusts the operation of his plants, with certain oversight, to proved managers and technical experts. He himself is thinking of large industrial problems and of the relation of scientific management to them. His interests are so extensive and stretch forward so far in time that management problems which seem academic to others are practical to him. Another member has participated in federal or state or municipal administration, has tested the application of the principles of scientific management in those fields, and has had his imagination awakened to new conceptions of the significance of those principles.

We find then these five types, and individuals in greater variety, constituting the membership of this Society. They are one in that they believe in and desire to promote real scientific management, and desire to see the art practiced upon the highest plane of professional ethics; but in other respects their interests differ, and it is simple human nature that it should be so. And furthermore, we may believe it is the differences as well as the common interests that account

something different in all the others, of new points of view brought away from every discussion, joins with the force of common interest in drawing us to these

Does not this analysis of the several interests of the members of this Society in scientific management suggest the duties of the Society towards its individual members? Is not that duty patently on the one hand to satisfy the interests of all, and on the other hand not to permit any particular interest to monopolize attention or to become unbalanced or to spread incomplete facts or to give out biased interpretations of scientific management? The duty is clear and the means equally clear: the establishment somewhere in the Society of a responsible authority to direct the affairs of the Society in accordance with a far-sighted and well-balanced program of experiment, investigation, discussion and publication, in which all interests are satisfied and in which each is protected from its. own tendency towards narrowness in point of view. There should be investigations in social influences as well as experiments in technique, and discussion and publication of conclusions based on both. The range of experiment and investigation and the range of discussion and publication cannot be too wide, provided,and this is important—that these are motived by the . by him; even though principles more perfect than common interest to discover and share what is true in the science and what is best in the art of management. Another society may give to discussions of similar subjects other emphasis, but the unifying element in this Society's activities is scientific manage-

That there must be consideration of all possible phases of scientific management is particularly necessary with respect to the obligations of the Society to its younger members. These are to be the consulting engineers and managers, the experimenters and the expounders of the future. They are now in the class of apprentices who are acquiring fundamentals; their special talents have not been discovered and their special interests have not been developed. But soon among them a wide range of special interests will develop, and/we must provide for them impartially. With respect to them the Society is an educational institution, and if we have their interests at heart provision must be made for helping them to an accurate knowledge of facts and correct thinking with respect to every phase of management. The educational influence must be broad because the types into which they develop will represent great diversity of interests. This obligation will be observed if we have their interests in mind; and their interests will be kept in mind, for on them depends the future of scientific management, and I know of no Society which thinks of its ideals more in terms of the future than does

for the vitality of the Society. The stimulation of this. Finally, it can be asserted that the more mature members of the Society, with their special interests, will be best served by a wide range of experiment, investigation, discussion and publication with respect to the science and art of management. There may be one class of members of whom this may not be so true: they are those whose temperaments inspire them to become specialists and study deeply into narrow fields and to make discoveries which contribute to the sum of human knowledge. But it is true of most of us, for most of us are coming closer together in that we are each becoming broader, and are becoming less specialists in our relations with one another, and more and more a homogeneous group of specialists in our relations to others. Further on we shall have something to say about the development of a new professionthat of transferable administrators working through universal and flexible management principles; here it is sufficient merely to suggest such a class and to insist that the members must be masters of all problems pertaining to management.

> I hope that this Society will always carry the name of Mr. Taylor, even though the time may come when experiment and investigation shall have discovered a better mechanism for every one perfected and applied those enunciated by him because better reflecting changed conditions, shall have been discovered. For Mr. Taylor's significance in industrial history rests on something more substantial than any of the devices of management or any of the principles of management associated with his name. I recall that Mr. Taylor himself, in warning against the confusion of mechanism with principles, predicted that it was likely that within ten years not a single then accepted mechanism might be in existence. Similarly, having in mind a much longer period and the inevitable changes in industrial conditions, Mr. Taylor might have said that his principles would not remain unchanged. In fact, we have already experienced a change in attitude toward the principle of securing cooperation and incentive through a bonus, premium or differential piecerate merely. That has ceased to be a major principle. And other now major principles may gradually become minor, and principles not yet discovered be formulated. Mr. Taylor's significance rests on something greater than his mechanism and even his principles of management. It rests on the four facts that he first applied the methods of the exact sciences to the study of management; that he manifested infinite patience in thorough investigation before drawing conclusions and announcing them; that he did not believe that any of his conclusions represented ultimate results; that he abhorred charlatanism in investigation and in practice. In short, it is the genius which