administration more than the introduction of scientific management into industry. May I suggest that if we had any real conception of the function of administration, industry as a whole would long since have successfully grappled with the problem of unemployment within employment. What is the use of claiming to be an administrator if one stands baffled in the face of such a prolific source of human suffering and economic waste?

Mr. Schulze mentioned the work of one publishing concern. I imagine that he had in mind the Curtis Publishing Company. I have always felt that the conduct of their advertising policy comes as near being an administrative function as any of which I have knowledge. For instance, if an advertiser plans to advertise with the Curtis Publishing Company and makes the request, the company will send experts-and they are experts-to make an analysis of that business, report on its future-immediate future and distant future—and then advise as to whether the prospective advertiser is warranted in entering upon an advertising campaign and if so, what kind. And some of those analyses-which are rendered free of charge, I understand—have led to the revolutionizing of the businesses that were analyzed.

They have various other practices of that general character which have no immediate effect upon the conduct of their business, but out of them largely their success has been built. Many such practices of course have the effect of lowering immediate profits. But the long-range effect is to increase their standing in the community and increase profits.

If we have administration, the more there is planning in connection with it the better it will be; but until we are adequately planning for the functions usually considered to belong to the management, it is just words, in my opinion, to talk about planning applied to administration.

HORACE B. DRURY1: The central theme in Mr. Schulze's paper would seem to be this: that, just as Mr. Taylor and the various other persons interested in scientific management have maintained that management should be planned, so planning should likewise be extended to administration.

To make clear the meaning of this proposition, Mr. Schulze has formulated definitions of management and of administration. It is always a difficult thing to make a definition, and it is still more difficult to get the world at large to accept a definition. Quite possibly the dis-Special Expert, U. S. Shipping Board, Washington, D. C.

born, and nothing will foster the development of true tinction that has been drawn in the paper today cannot be made to hold; the words are a good deal alike. Yet I think that we all get the connotation of the two words as Mr. Schulze has explained them, and understand what he means by them. An administrator is a man who rules, a man who is to a very great extent his own boss, who decides what is to be done-as Mr. Schulze says, decides what is to be made, and how much of it-things of that sort. A manager, on the other hand, is a man who has been given something to do, who is supposed to carry out instructions, who takes the responsibility for seeing that certain tasks are accomplished.

> Mr. Schulze says that the wastes arising out of bad administration are greater than the wastes arising out of bad management; or, at least, that very great saving would result from a more careful planning as to what is to be done, and how, in a general way, the thing is to be attempted. It should be noted in passing that Mr. Schulze does not in his paper confine himself strictly to a discussion of administration as he has defined it. For instance, a number of things that he has to say with regard to the improvement of selling methods are really matters of management rather than of administration. The use that is put to circulars, the various methods of control of salesmen, etc., are not functions that concern the general scope of a business.

> Nevertheless, I think that we will all agree with Mr. Schulze that anything that can be done to make the purely administrative functions of a business better planned is all gain; that any thought that can be given to making the central administrative function better understood and more clearly and logically developed should be warmly welcomed. The only question that could exist in any of our minds is how planning can be extended to this larger administrative function. As far as I can see Mr. Schulze has not in his paper advanced any very definite idea as to how planning can be extended to administration, as opposed to management. The chief thing that he has had to say on this point has been that data of various sorts should be gathered that will aid the administrator in knowing how he shall carry on his business; data with regard to production and with regard to selling, with regard to stock, finances, and things of that sort.

> Now the gathering of information is at the bottom of all scientific method. But it is my understanding that when members of the Taylor Society speak of planning they have in mind something more than merely the gathering of information with regard to management. Back of the idea of planning, as scientific man-

agement uses the word, there is the idea of a definite system—not necessarily this particular system or that but the idea of doing things in a systematic way. setting up standards, very carefully coordinating all the factors that enter into operations, etc. That is the sort of thing that we mean by planning when we speak of planning under scientific management.

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I doubt very much if it is possible to apply planning, in the rather technical sense in which the Taylor Society uses the word, to administration, in the sense in which Mr. Schulze uses it. And for this very simple reason; that as soon as you apply planning to administration, it ceases to be administration and becomes management. That is, you cannot reduce administration to a formula; as soon as you do, it is then carried on under instructions or in accordance with some definite policy and has become what Mr. Schulze would call management.

I think that the real thing that Mr. Schulze is urging in this paper, and it is an aim with which I am wholly in accord, is to extend the scope of management so as to cover some things that are now regarded as administration. That is, plan your selling, plan the relationship between stock and finished product, plan finances, and other things of that sort. Some of these things are already included under scientific management. But to a greater and greater extent the field of administration should be broken into, and this part of it or that reduced to an exact science. As I see it, however, there will be left that uncertain and unworked field, which now properly belongs to the administrator, who has to do the best that he can.

I want to add just one positive suggestion. If we are going to extend the field of planning, if we are going to control definitely these factors of sales, finance, employment and the other things of that sort that now cause so much uncertainty and loss, the way out will be largely through the development of organizations or understandings that are larger than business organizations as they now exist. Much of this work of coordination could be carried on by associations of one sort or another, dealing with the various problems of employment, production, sales, etc. for an entire industry or several industries. If to a wide measure of voluntary cooperation along these lines there could be added a certain amount of Government assistance and sanction, it would seem to me that it might be possible to reduce to exact scientific control many of what now appear as the perennial and insoluble problems of administration.

HENRY W. SHELTON': Mr. Schulze obviously believes in task-setting-for the business as a whole as well as for individual jobs. His main contention that planning is needed in the general as well as in the detail problems of a business is hardly open to an argument, and I think he has performed a service in calling attention to the need of a broader and more consistent application of the scientific method.

His definitions are painstaking. I agree with his general conception of administration. I object, however, to the concept of organization as "a combination ' . . . of human beings, materials, tools, equipment, working space, and appurtenances . . ." You can' group inanimate objects, but you cannot organize them. Organization is possible only where there is life in the component parts, which, by their own powers of selection, choice and adaptation, are able to contribute to the life of the whole. I would therefore ask Mr. Schulze to consider amending his definition to permit this vital distinction. There is some question in my mind also, whether "planning" should be made so broad in scope as to include the judging of results, or whether the determination of the success and importance of results is not a separate function, which might be given some such term as "rating."

The spirit and frankness with which Mr. Schulze deals with "The Profit Factor" is admirable. I only trust that no one will confuse "capital" and "capital stock," or apply what he says about "capital" in its true sense to "capital stock" in the way the financier and promoter are sometimes tempted to apply it. True capital is, he says, a physical thing-but that cannot be said of what is represented by many certificates of ownershiù!

On the whole, Mr. Schulze has so successfully kept off of controversial ground, that I am led to wish he had been more venturesome. He has clearly told us what should be done. But he has not told us how it should be done, or who should do it. By implication the modus operandi of planning in administration can well be left to the professional advisor. In analyzing the need and defining the field of planning, he has left us to guesss at the division of responsibilities of the workers in that field, and the kinds and extent of participation of the various parties at interest. The fine spirit in which Mr. Schulze would approach these vital problems, had he undertaken to do so, I believe is indicated in his statement that the division of the profits "should be a matter of open covenants openly ar-

¹Consulting Engineer in Management, Philadelphia. Pa.