room may not take actual charge of the movement of the material betwen the various departments; but it must at least be promptly notified of such movements, so that it can at all times know from its route sheet in which department the material is.

And now comes the question: in establishing such central and local planning rooms, shall we first establish and perfect a central planning room, or shall we first establish and perfect one of the local planning rooms, as an object lesson to everybody concerned. before we commit them to the whole proposition? My own answer is, that to decide this is an exceedingly delicate matter, which for its proper decision requires more insight into the conditions actually existing in a company than can as a rule be acquired by even an experienced leader, before the work of reorganization has actually progressed in one way or another. At times the nature of a business is such that a central planning room can be readily organized to do far more good on the whole than could, in the same length of time, be done by organizing a local planning room first. Again, the nature of the work done in a particular department may be such, and have such relathat the most good can be done, for a beginning, by centering on such a department.

And now for a couple of concrete examples, without giving any names.

Nearly five years ago I began the reorganization of the manufacturing methods of a large concern where I still go and expect to continue to go for some years to come. To begin with, it there seemed best to tackle one of the many individual departments, as if it were an independent plant, and to some extent it was, as it had a store room of its own, and made its own part of the product but with little assistance from the other departments. It soon developed, however, that the machinery was to badly out of repair that putting this in order became all important. This meant that I, temporarily, had to give most of my attention to a rehabilitation and reorganization of the repair and maintenance department of the plant, which evidently never had been adequate for its purpose, so much so that even its own machinery was in a deplorable shape. After finally getting the first department in fair shape and with a planning room beginning to operate, it developed that most of the difficulties encountered were entirely beyond the control of the head of the department himself. This fully established-and it is astonishing how little analysis is usually made of the nature and source of the difficulties that beset some organizations; the personnel seems to be so used to them that they do

a drive for the parties actually responsible, and they were decidedly "higher up." As a consequence, we have to-day, even though no central planning room as I would like to establish has been agreed to, a marked improvement in the managerial responsibilities felt higher up. Now, if I understand Mr. Cooke at all, his idea is that by organizing first the various units of the final organization under consideration this evening, such pressure will be brought to bear by them that a central control will be forced into existence, as in the plant just referred to; but mind you, we have been at it for nearly five years in that plant, and in the present case Mr. Kendall states that there are only some three months in which to accomplish the

And now, as a matter of warning as to what "crimes" may at times be committed under the name of scientific management, I will refer to an abortive attempt to establish a single planning room to run a number of fairly independent manufacturing departments it a plant, by a gentleman who was delighted to do so after spending six weeks studying the operation of a planning room organized by myself tion to the rest of the manufacturing departments, to run two departments only of a much smaller plant. When I was afterwards called in to look the work over, what did I naturally find? That in this single planning room an attempt was made to do all of the preparatory clerical work for the whole plant; while nothing was done to look after its use, as nobody connected with the institution had ever grasped what planning room's real functions should be. Thus, while requisitions for materials were prepared, the planning room had nothing to do with its delivery to the shops, and the old order of affairs of having each shop foreman "pull" material into his shop instead of having it "pushed" upon him, was beautifully in vogue. Similarly no follow-up of the progress of work was attempted, or even realized to be a function of that planning room; the old hit and miss method of finding out about the status of an order by inquiries beginning with the foreman that would be involved last, and continued until, after great effort, the foreman actually at the time involved was discovered, was still in use. This was well illustrated in the case of a piece of work for which, after half a day of effort, it was finally discovered that the material had not even been ordered by the purchasing agent, who was still casting around for a favorable price.

It is this kind of abortive work, undertaken by concerns in their efforts to get scientific management into their plants without calling on the experienced leader to assist or direct them, that has brought scinot even suspect that they can be removed—we made entific management into discredit in so many quarters.

And now, to come back to Mr. Kendall's contention, if I have at all grasped it; if you can find the proper leader; lose no time in also organizing the central controlling department, but let the case recited gretted, it seems to me, that we cannot, or do not, above be a warning lest it go wide of its mark.

MR. JAMES INGLIS:1 The only addition I can make to this discussion is perhaps to refer to my experience here during the past four months. Like a great many other men throughout the country, I was in a very dissatisfied state of mind until actually in the service. Many such men have come to Washington and failed to find their places and have gone home discouraged, and this probably could not be avoided. It calls for some staying qualities for men of long experience in managerial positions to jump into more or less subordinate positions and stick it out until they begin to feel that it is worth while. When I arrived in Washington I was filled with patriotic emotions on the one hand, a complaining spirit on the other, critical of the way things had been done and of those who were trying to do them. I have pretty largely overcome my complaining disposition, which reminds me of the story of Ikey and Jakey who joined the Army and were sent to France. It was a long time before they were heard from and their father was quite worried but finally he received a letter from Ikey describing his trip over, saying the weather was fine, the ship was beautiful, the food was good, they had a comfortable bed, and everything was lovely not only on the way over but since they had reached their destination. After signing his name he added a postscript to the effect that Jakey had been shot that morning for complaining. There is no longer an inclination to complain with regard to the men at will have a central control. Mr. Kendall viewing the the top after finding out how difficult it is to do the work of a private to one's satisfaction.

Mr. Kendall's plan of making radical changes at the top is all right and I hope he will continue to work for it, but at the same time I think no harm can come from also working at the bottom, helping those who are on the job in every possible way.

Speaking of the men at the top, I do feel there is after all as to procedure. ground for complaint that President Wilson is not more accessible. He probably knows best about con- tral control here now it must of necessity work serving his strength; but if he could, for instance, play golf with all sorts of leaders who are at work on this job and be reasonably accessible to a good many more men than he is, I cannot but feel it would help than by following the procedure that Mr. Cooke has in the situation immensely.

The problems which we are discussing, of higher efficiency in the Army and Navy to assure the winning

of the war, will probably be worked out successfully by the able men in the service with the civilian assistance which is so generously available. It is to be remore readably absorb the experience of our ally Great Britain, and make shorter cuts to the adoption of more effective methods in connection with the procurement and handling of the enormous requirements of the Army and Navy; but that is no reason why we should not do everything possible, individually and collectively, to bring about the desired end; and it is only those located far from the scene of action who say that the men here in Washington who are on the job "deserve to be canned." Unfortunately there are a lot of otherwise intelligent people throughout the country who have no better conception of what is involved than to make that suggestion.

Mr. Henry T. Noyes:1 It seems to me that the session this evening has brought out an essential difference between Mr. Kendall and Mr. Cooke, not in the ultimate aim, but in the thing which is to be emphasized at the moment

Mr. Kendall and Mr. Cooke both want to win the war, and I am perfectly confident that both of them believe in organization and control. I do not think that one believes in it more than the other. The question then is simply how to proceed at the moment towards getting that control. That is the issue.

It is really a question to my mind of time, after all, that we have got to face now. Time seems to be the big essential thing. With time and abundant time. it is perfectly conceivable, and believable, that Mr. Cooke's thoughts will work themselves out," and we urgency of the moment and the importance of that control quickly, wants to strive for it directly in the way that seems to him the wisest and best. Control they both want, and the only real difference is the question of time in which we can get it. Perhaps they both think they can get it quickly, but I am not . sure that Mr. Cooke does, and the question is now

Mr. Kendall's feeling is that if we establish cendown through and recognize and observe these functions which are essential to any central control. Mr. Kendall believes we will then get results more quickly mind, namely; one of gradual evolution and development of central control coming up from the bottom.

Storage Committee, Council of National Defense.

¹Treasurer, Art in Buttons, Incorporated, Rochester, New