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UNIVERSITY

EXPERIMENT IN

"PERSONNEL WORK"

and 831-4 Correspondence

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The above outlines in general terms about what the "Personnel Man" would do and what his broad objectives would be. We expect that he will introduce a new relationship into the work situation as first he will be set up outside the present supervisory hierarchy and therefore will probably represent upper management to the employees; and second, his background, that is, his training and his personal attitude toward the job will introduce a new approach to and a more complete study of human relations problems.

In the beginning employees will undoubtedly make many demands which will be difficult to satisfy. Some of them which are of a personal nature will be dissipated through the understanding that developes in several interviews but others which are indicative of fundamental disturbances will present problems as the employees will probably expect some sort of action. In these cases the "Personnel Man" will attempt to develop an appreciation of the complexity of the total problem; but when he has gathered the facts, he will either have to secure action indirectly by suggesting a remedy to the line organization or he will, when the problem is of a general nature, present the analysis to upper management for approval. We feel that all employee complaints will be satisfied by this approach. We also believe that ultimately the "Personnel Man" will become aware of disturbing elements before a crisis occurs which will cause employees to demand immediate action and therefore the needed change will be made on what appears to employees to be Company initiative.

2.

We also expect to find considerable antagonism directed toward the "Personnel Man" by the department supervisor. This, of course, will have to be dissipated as the success of the experiment depends largely upon their working in harmony.

We will at first spend considerable time allowing supervisors to express their feeling. This, experience has shown, will dissipate the attitude to a certain extent. We then hope that they will gradually realize by working with the "Personnel Man" that they are free to function as before as it is important that nothing happen which will embarrass them in any way. For this reason it may occasionally be necessary for some personal information to be withheld until it can be presented as a general problem. These problems and the "Personnel Man's" judgment will be discussed in conference with the "Personnel Man's" supervisor as it is important that the decision be the result of an intelligent understanding of the various factors involved and not the result of the "Personnel Man" being emotionally involved or as one taking sides in a controversy.

ACM-6086-LT

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Imployee (sepressulation Plan and a review of previous Esployee Selations Passarch, two general devaluations were resolved. Arat, that the imployee Depressulation Plan was not particularly fitted to deal with the fundamental problems in the imployee Pelations field; and second, that had we designed a "Plan" in this general territory based on our own experience and research, it would not have been an Deployee Pepresentation Plan. For these reasons it was thought desirable to cuttime a plan which would be suitable to deal with those problems which our experience and research have indicated are the post essential.

This plan involving principles and methods designed in our resource activity is cottined briefly below with the thought that it could be tried out as an experiment. Surther details as to method and the values of such a procedure would, of course, be determined during the experimental periods.

This plan would be about me follows:

A Tereoncal limn" would be sesigned to a group of antipolymen (the number to be determined by experiment but testatively thought of as appreximately 500) - these should comprise a sub-department or two adjacent sub-departments.

The job of the "ersonnel len" would be as follows:

- L. The broad objective would be
 - (a) To search out and study the human problems existing in the groups.
 - (b) To institute corrective procedures and make available to memperent bottor information regarding the human sepects of the existing problems.

- 2. To reach this objective the "corrected four would
 - (a) Interview each individual in the group. This would in-
 - (b) Observe the behavior of the acquirymen at work.
 - (a) Study records of individual efficiency, attendance, labor turnover, etc.
 - (d) Apprelse oul interpret the above natorial for the purpose of identifying the home problems. It is expected
 that these will aroup themselves into two classes:
 (1) These problems which can be best explained and understood in terms of the individual's personal bestground
 and (2) those problems which can be mant easily explained
 in terms of the buren relations within the working proup.
 - (a) Institute corrective estion in them two clusses of prob-
 - (1) With respect to paraonal problems experience has a special interviewing itself is an adequate corrective procedure where charges in attitudes need to be made. There will be eases, however, where more than interviewing is necessary. These will include medical examination, thrift councilling, plaument, etc. In these latter cases the Termondal and would work through the supervisor.
 - alt to outline a definite method for utilizing the understanding that the "Sermonial En" will obtain of the group's situation. "Whatement will probably invite the "Fersonsal Enn's" obtains whenever a shange in the work situation is being considered. As experience has shown, any change will effect the stability of a group of workers and caesionally these absorps marry with them significances for the group that manufocant had not previously had available for consideration.

 These minunderstandings would occur less frequently if the "Fersonsal End" incaledge of the human situations were pooled with present humanoffs of the values in the topholo-ioni and other charges.

The above outlines in (energl terms about that the Theresonnel Can's would do and what his broad objectives would be. In expect that he would function in this situation without having any definitely recognized authority exect the right to intorvies

content for the to eas the information obtained from individuals in a way that sould not entermes these individuals; otherwise he could not be able to function. It was seen that a capable is arrested from would devotop the obtainty to interpret such information so that it could be used eithout entermeasure. To would also need to evoid toldes direct notion in many dones because such cosion would display an authoritative specifies which would interfore with his corrying on his major duration. Lestly, he would evoid taking either in any eithering of the resched through an infollicant understanding of the various factors in the situation.

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feetire agent in exployee relations as more generally described in the attached cutling are somewhat difficult to give. However, illustrations such as the following taken from previous interviewing exercises will serve to picture the kinds of attactions be will encounter and the methods and action he would probably take. Illustration No. 1

The "Tereonal Man" in interviewing the supervisor disorvers he is conserved over the case of a subordinate whom he finds very difficult to supervise. Upon interviewing the subordinate, the "Tereonael Man" learns that he has an abnoxual attitude toward sutherity of any kind, which results in his being antagosistic toward those who supervise him.

The interview showed that this attitude was related to an attitude formed in early life and not at all to the method used by his particular supervisor. In this same, through further interviewing, the Termonnel Man" would help the suployee because sware of the real source of his attitude. Experience has shown that this would aliminate the messenity for him to our press it as an antegonism toward his supervisor.

Illustration No. 2

In interviewing a group of employees, the "Carconnel Len" discovers one employee with unusually high output who is considerably troubled because of her deep-rooted batted of her group chief. He other employee in the group displays a similar feeling.

personal history was reviewed, and a similar feeling toward the girl's step-father was discovered. After a considerable time, the employee herself made the statement that she know what was the matter. "The group shief reminded her of her step-father." After this reclimation was expressed, a definite improvement of the girl's attitude toward her supervisor was noticed.

Illustration In. 3

in interviewing a group of employees, the "Personnal issa" learned that the group was practicing an organized restriction of output. This behavior on their part was associated with a facility of futility which was character—. Intie of most of the interviews in the group although conifested in many different ways. Consents were made that their particular department was the old people's horse, the grove yard, etc., and that no one ever was promoted or went any place from their group.

A study of the records disclosed a distinct lask of sovement of people in the group for some years back. Importance indicated a feeling that something was erong; but since they saw only the symptoms and not the source of the problem, they could do nothing about it.

In this situation the "Nersonal Can" would probably present an evaluate and interpretation to the management with a suggestion that as soon as possible steps be taken to increase the movement of personnal in the group in an effort to bring back a more normal response in individuals.

The above three illustrations were taken from notual experience in the interviewing of employee groups. Almost every interview of some 20,000 taken would yield examples of notual situations in which the "Fersonnel Man" would institute some corrective procedures.

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- 1. Some will be picked from hourly rated shop employees
- 2. Would meet regularly with line organization supervisors to discuss employee problems and inform supervisors of general situation
- 3. Get line on supervisory prospects
- 4. Would help correct many situations directly with line supervisors
- 5. Could handle personnel problems that cannot now be handled
- 6. Refer employees to other specialists when necessary
- 7. Would sense the real situation in his group
 Illustrations: Wood Shop and Iron Working Department
- 8. Could spike incomed tumors promptly
- 9. Distinguish between personal and group problems
- 10. His contact with line supervisors and assistance at supervisory conferences would constitute the supervisory training program as related to human relations
- 11. Would assist employee representative in doing his job
- 18. Would tend to discourage employee representatives from promoting wild ideas originated by him
- 13, Would assist supervisor in performing his duties
- 14. Would put enormous emphasis on human relations' part of supervisors' job

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STATEMENT OF FINAL CONCLUSIONS REGARDING REST PAUSES TAKEN FROM ROUGH DRAFT OF BOOK

Rest Pauses

The question can be raised: If fatigue is not a primary factor limiting output in most repetitive or semi-repetitive tasks, how can the beneficial effects of rest pauses found by many investigators and substantiated by the results of the Relay Assembly Test Room be explained? As long as rest pauses are conceived as having only physical effects, it is, of course, difficult to explain these beneficial effects other than in terms of reduction of fatigue. But once it be granted that the worker's environment is filled with social significance, it becomes necessary to understand these effects in terms of the social function of rest pauses. From this point of view, it can be seen that the introduction of rest periods in the shop reflects in most instances an interest on the part of management in the health and well-being of its workers. Moreover, rest pauses allow the workers to get together and to converse. They become respites from the constraint of a too confining technical organization. For the time being at least, the logic of efficiency is held in abeyance and the workers are allowed to act as normal social seings without fear of discipline. Unlike many of the changes introduced by management to improve efficiency, rest pauses take into account the worker's sentiments. It was to this total situation that the workers reacted favorably.

In this interpretation it is the meaning of the rest pauses, and not the rest pauses in themselves, which is important. Their meaning is largely determined by the social setting in which they occur. If the worker thinks that rest pauses have been introduced as a disguised form of "speeding up" work, as he is very likely to think at first, he will meet the innovation with suspicion and hostility. If, on the other hand, he is convinced that they are expressing a real and sincere interest of management in his well-being and health, and the total social situation reinforced this conviction, he will respond to this situation with a greater interest in his task. This was the experience in the Relay Assembly Test Room. At first the workers were suspicious of the different changes introduced. These suspicions were expressed in different ways: Could they make up for the time lost? If they did earn more money, would they receive it? Were the changes being made in order to increase output? As soon as their suspicions were allayed, however, no more loyal and cooperative group of workers could be found.

THIS COPY FOR: MR. G. A. LANDRY - 1000

APR 14 1936

I am attaching an outline of our thinking and suggestions with reference to dealing with the human problems incident to the change to the Product Type Organization. These are only general comments based on our prediction of what kind of problems we can expect. It may be that as we get farther along in the new organization, you will meet problems of a different nature which, nevertheless, fall in the human relations field. I should like to take this opportunity of offering you, whenever such problems occur, the services of some of the people in my organization who have had considerable training and experience in the field of sociology. It might be that through investigation and study of these problems, many difficulties can be avoided.

ORIGINAL SIGNED BY
G. S. RUTHERFORD
G. S. RUTHERFORD - 800

HAW-831-LIT

Memorandum to:
Works Superintendents

Copy to Messrs:

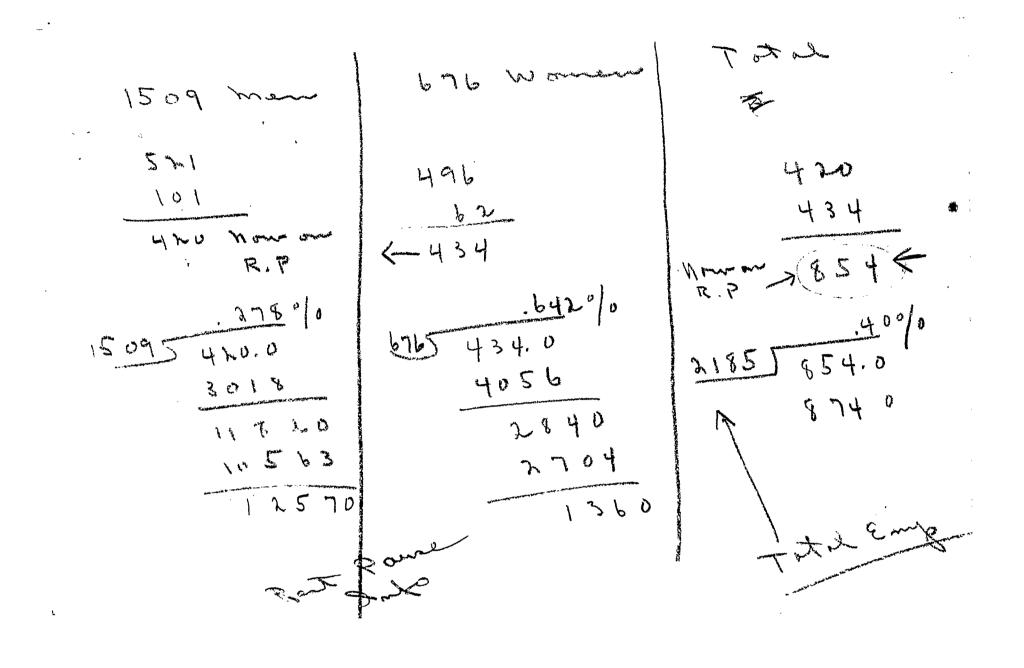
C. L. Rice - 0001

G. A. Landry - 1000

G. A. Pennock - 2000

J. M. Stahr - 3000

R. A. Price - 7500



UNIVERSITY OF WISCONSIN - MILWAUKEE

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SUGGESTIONS FOR DEALING WITH THE INDIVIDUAL AND GROUP PROBLEMS INCIDENT TO THE CHANGE TO PRODUCT SHOP TYPE OF ORGANIZATION

1. Nature of the Problem

- 1.1 For purposes of our thinking we may describe the problems as of two kinds: (a) Technical those concerned with the actual work arrangements and (b) Social those concerned with the human aspects of the changes. In this instance we are primarily concerned with the latter or human problems.
- 1.2 The major human problem will undoubtedly manifest itself as an increase in apprehension among individuals uncertainty wonder and worry about how the change will affect them personally. At first glance this might be thought of as simply due to the actual uncertainty in the situation, but there is a more fundamental cause which must be considered. Briefly, it can be stated as follows:
 - (a) Individuals function in groups by building up a network of routine relationships which, after a time, are taken for granted and become a traditional part of the group's thinking. They control the behavior of the individuals in the group and form the sentiments necessary for the group to accomplish its economic purpose.
 - (b) When anything threatens these relationships, built up over a period of time, the attitude of the group members is to resist the change especially if the rate of change is fast. This resistance usually takes the form of apprehension.
 - (c) In order to form new groups, these old routine relationships must be broken, where necessary, and new ones formed. This cannot be done rapidly, as the essence of routine relationships is their repetition to a point where they become habitual and can be taken for granted.

As an illustration of what is meant we can consider the relationship between an inspector and an operator in the old setup. In the event of trouble - both the operator and inspector knew what they were expected to do - questions of who was responsible had been settled in previous instances, and the "paths" through which the problem should be taken had been worked out by experience. No one had to consider whether this

was a problem which should go to the group chief, section chief, etc. - it was fairly well known. However, when the organization undergoes a major change, these things have to be thought out each time a problem arises, and this thinking continues until sufficient experience has been gained to satisfy each member of the group.

If this theory is correct, the problem for management is that of dealing with apprehension and worry brought about by the break up of routine relationships which heretofore controlled the behavior of individuals within the groups towards one another and towards other groups, and of facilitating the formation of new routines as rapidly as possible.

2. Suggestions

In line with these thoughts, the following suggestions are made:

- 2.1 Confining the worry to those groups which will actually be affected. Because apprehension quickly spreads among groups of people, it is suggested that individuals who will not be affected should be told so as soon as possible by their supervisors. The supervisor should give the impression to his people that he can be depended upon for giving adequate and correct information about the situation from time to time. This should stop much uneasiness and unnecessary rumors.
- 8.2 Giving adequate information to workers who will be affected. Much of the apprehension among those who see their occupations materially affected can be dissipated if someone in authority, preferably the superintendent, tells them what the situation is, what steps are being taken to solve the problem, just how placement problems are handled, and give assurance that no one will be laid off because of the change.
- Informing the supervisor of the purpose and logic of the change. While it is likely impossible that a logical understanding of the change can be given to the entire working force, we should aim to get an adequate understanding across to as many levels of supervision as possible in order that they may better control the formation of the new groups. As indicated earlier, things which formerly were taken care of through traditional patterns of behavior will need to be thought out during the adjustment period, until through repetition, new routine relationships are formed. It follows that the supervisors who will carry the brunt of this "thinking" process will be able to do a

better job if they have a clear understanding of the aims of the new form of organization.

This need is being met by some of the branches through discussions of the new organization at branch dinner meetings with supervisors. It is letter to of January 15, 1936, which is being distributed to all supervisors, is also a step in this direction. We have no other suggestion for formal action under this point, but believe upper level supervisors should make an extra effort, during the adjustment period, to keep lower level supervisors adequately informed of the changes contemplated and the reasons for them.

- 2.4 Using rest pauses as a method of facilitating the formation of new person ' relationships. Our studies of rest pauses have shown that one of their values is the result of the free time they afford to develop personal relationships among the individuals in the group. When the worker sits in one work position, little opportunity is given for free association with his fellow workers and therefore an organized system, such as rest pauses, is a distinct help, especially when new groups are forming; for until these personal relationships have formed, we will have no effective group organization. We therefore suggest that rest pauses be extended to all our shop groups primarily to capitalize on their social value. Approximately 28% of the Operating Branch men and 64% of the Operating Branch women, or a combined figure of 40% of all Operating Branch hourly rated people are now on rest periods. This extension would mean including the remaining 60%.
- 2,5 Letting up on unnecessary restrictions on individuals. This suggestion naturally follows the one above. For instance, talking is a natural means for developing and maintaining personal relations and in new groups there may be a natural increase in the amount of talking. If suppressed, it may develop as a subterfuge in which case it is apt to take the form of antagonism to authority. This undermines the morale and tends to organize the group in opposition to management. Likewise, unusual behavior on the part of employees may not be due to willful disobedience but rather to a lack of understanding as to what is wanted This would be true especially when behavior patterns do not fit the requirements of a new or changed situation. Emphasis, therefore, should be placed on teaching the appropriate behavior rather than by a disciplinary "cracking down".

Original Signed By

HATT-831-LT

G. S. RUTHERTORD - 800

4-14-36

PRELICINARY REPORT ON THE EXPERIMENT IN PERSONNEL COUNSELLING

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General Statement of the Plan

On January 17 tentative plans were made for the development of a new kind of personnel work. Under this plan a "Personnel Man" from the Industrial Relations Branch would be assigned to a group of approximately 300 employees. This man would devote his entire time to interviewing these people, contacting their supervisors and familiarizing himself with the work being performed. It was felt that such a specialist could perform a very real function both for the organizations to which he was assigned and for management. By having direct personal contact with each and every employee, he could give their problems much more attention than they are now receiving; he could bring their problems to the attention of proper authorities and thus serve as a coordinator of existing agencies; he could counsel the supervisors about problems in their organization and thus aid them in solving them; he could, by interviewing the employees, dissipate many of their apprehensions and emotionally reinforced ideas and, finally, he could keep management informed of the actual situation at the work level.

It was felt that this plan was in line with and followed logically from the interviewing program and related studies which were made from 1927 to 1932. It was also felt that such a plan would place the personnel counsellor in the same relative position that management has already found successful in the handling of materials and equipment. From time to time the Company has found

it beneficial to develop specialists in certain aspects of manufacture. This plan would simply add a specialist in personnel problems who could give the line organization the benefit of his knowledge and findings.

In outlining this plan considerable attention was given to the qualifications of the "Forecamel Lan" and his relations with the departments in which he would work. It was felt that he should be well grounded in Company organization and procedure and that he be well trained in the technique of the personal interview. As to his relationship with the group to which he would be assigned, it was felt that he should report to an outside organization, the Industrial Relations Branch, and that he should function in the group without any definitely recognized authority except the right to interview employees and study the general work situation including relevant departmental records. It would be important for him to use the information obtained from individuals in a way that would cause no embarrassment to anyone; otherwise he would not be able to function. Procedure in Introducing the Experiment

Department 6364, an organization of about 150 employees, so as to learn from actual experience what its possible merits and demerits might be. A man was selected from Department 6086 to conduct the experiment. A detailed outline of the procedures to be followed in setting up the experiment was then prepared and the division chief discussed it with all the supervisors concerned at two meetings held on rebrunry 6 and 7. At these meetings the plan was presented electly and in detail. The supervisors had few questions after the talks and the plan seemed to be acceptable to them. Following this

introduction the "Personnel Man" started interviewing employees and getting acquainted with the supervisors in the department.

Summary of Experience to Date

clusions from this experiment. The investigator has spent about six weeks in the department so far. During this time he has interviewed 22 employees and has spent a good deal of time contacting the various supervisors. It was thought important to develop satisfactory relations with the supervisors at the outset and (1) to get a picture of the general work problems as they appear to them, (2) to get a thorough knowledge of the work done by the operators and the requirements that are made of them, and (3) to learn as much as possible about each supervisor's attitude toward his personnel problems. This general background is regarded as essential to an adequate understanding of employee complaints.

At the present time the major problems in this department from the supervisors' standpoint are, in the order of their importance, (1) Group earnings and piece rates, (2) Schedules and work difficulties, (3) Difficulties involving the supervision of individual employees. On the whole, the supervisor's time is so occupied with the first two of these problems that he has little time for the third.

(1) Group Earnings and Piece Bates

This is the major problem in all sub-departments in 6564. It is partly due to the fact that low activity does not permit employees to work full time on one job. Partly it is due to a lack of low grade operators who are efficient on several jobs.

Another difficulty is that the new piece rates seemingly do not permit earnings that are comparable with past earnings for comparable work. The supervisors are spending most of their time trying to overcome these difficulties because they believe that 90% of employee dissatisfaction is the result of earnings that are considered low.

(2) Schedules and Work Difficulties

The balance of the supervisors' time is mostly occupied with a variety of problems involving work assignments, difficulties with machines, materials and back schedules. Inasmuch as these are only of indirect importance in this experiment, they need not be commented on.

(3) Supervision of Individual Employees

With the exception of the problem case, which is studied carefully by every supervisor in the line before a decision is reached, the supervision of the individual does not appear to be a major problem from the supervisors' point of view. This seems to be due to the following reasons: (a) Employees do not take all of their complaints to supervisors for they say, "He won't do anything about it"; "he will think I'm a kicker"; or "it wouldn't do me any good as he would be down on me". (b) The lower level supervisor's time is taken up with running the job and there is a general resistance to bothering him or to taking things over his head. (c) Supervisors in general are apt to discourage the employee from taking complaints up the line as it may reflect on them personally.

The employees contacted have been selected from all of

the sub-departments involved in the study. Some of them were classed as problems or "chronic kickers" by the supervisors but, for the most part, they were considered average employees. Their problems, with the exception of two men who appear to be rather serious cases of personal maladjustment, are largely personal. Hany of these problems are dissipated during the interview, that is, the employee himself comes to feel that no definite action can be taken and that the problem is comperatively unimportant. Some of the employees, however, raise questions that can and should be answered. Many of these involve new piece rates and earnings. These questions are apparently assuming more importance each day as employees are becoming convinced that rates are being out. No definite action has yet been taken to obtain answers for the employees on any of these questions. If the demand is strong, they are urged to see their supervisor. In a few instances, the investigator has informed the supervisor of the complaint, but in no case has immediate action been requested.

one employee's problem was called to the investigator's attention by a supervisor. The employee felt that he had a grievance because of several transfers, each of which involved a out in rate. In the interview, it developed that he had several physical disabilities and that after job a prolonged illness, he was given an easy/that paid over a dollar an hour. At the beginning of the depression, he lost this job and since has been move? around because

he was not particularly efficient on any assignment. This case was discussed with the supervisors and they decided that the amployee should be advised of the reason for the transfer, and of the possibilities of future advancement on the job. They were evidently very successful as the investigator talked to the employee during the next week and he appeared to be more satisfied. It was also noticed that his efficiency had increased decidedly.

The investigator is also experimenting with another problem that appears to be entirely a personal difficulty. In this case, the cooperation of the hospital, the Psychological Testing Section, and the supervisors has been secured in an effort to help the employee make a personal adjustment with the aid of a series of interviews. There is considerable doubt in the investigator's mind and in the minds of the supervisors as to whether this man can be returned to usefulness, but they feel that an effort should be made as he formerly was a supervisor and, at present, could not be satisfactorily placed on any job. The other alternatives, a disability pension or dropping the man from the roll, need further consideration. They will be considered only if all other efforts fail.

The investigator's contacts with employees include two employee representatives. They both expressed interest in the plan and seemed to feel that it would help them in 1

their relationship with their constituents and with the supervisors. They seem to need some help as they feel pressure from the supervisors. They also feel that a good part of this demand for action is emotional, but as representatives they can not oppose it openly as they will lose their jobs as representatives. Inasmuch as this situation is not very satisfactory to the employee representatives or the supervisors, the investigator plans to work along with the former to relieve as much of this sort of pressure as possible.

one other item of interest may be mentioned. This is the fact that the employees have spontaneously associated this experiment with the old interviewing program. This has helped a great deal in getting their confidence and in establishing satisfactory relations with them. Almost all of them have expressed appreciation of the interview and of the opportunity to talk things over.

Summary

In general, it may be said that these first six weeks' work indicate that the plan is beginning to satisfy a need that has been felt for some time by supervisors, employees, and employee representatives. The supervisors seem actively interested in the plan and, in several instances, they have said that they would welcome the assistance that the "Personnel Man" might offer in

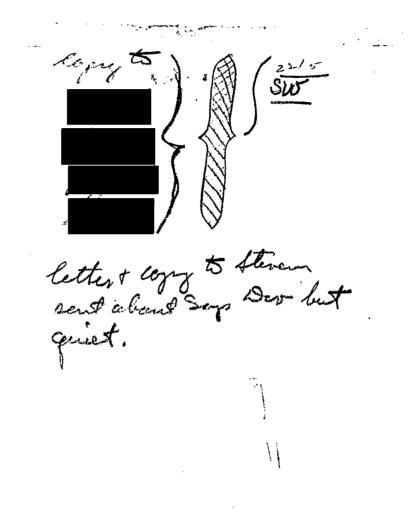
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helping them to gain a more complete understanding of their human problems and in getting their thoughts and their problems up the line.

With regard to the employees, it is sufficient to say that they are all as interested in the plan as they were in the Interviewing Program. They go out of their way to speak to the "Personnel Man" whenever he is in their section. They talk openly and freely of their problems and this in itself appears to be beneficial to them.

In view of this experience, it is felt that the groundwork is being laid for a program that fits into shop situations without disturbing the work that these organizations perform and which at the same time can go a long way toward alleviating many of the problems industrial organization presents.

\\JD-ACM-6086~4:\\C 4-8-56



APR 14 1936

I thought you would be interested in reading the attached report on the experiment in personnel work which you already have beard about.

FA 7-831-17

Mamorandum to Mesers: - 2200 / - 2300 / - 2700 / G. S. WITH SAVORD - 800

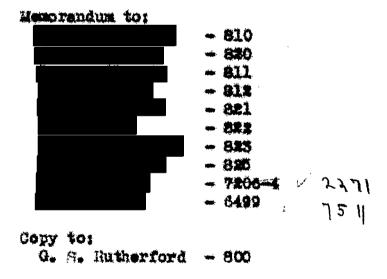
April 16, 1936

I thought you would be interested in the attached preliminary report on the experiment in personnel counselling with which you are already acquainted.

HAW-LT

H. A. WRIGHT - 831

Att.



April 27, 1936

MR. G. S. RUTHERFORD, Superintendent of Industrial Relations
Hawthorne

I was very much interested in the reports which accompanied your letter of April 20, and would be slad to have you write me again in three or four weeks to sive me any further comments which you may have as to the success of the programs you have outlined.

I note also that you have sent copies of these to and , who will be very interested in keeping in touch with these studies.

(s)

Personnel Assistant

Par 831 Sune 1, 1936

MR. G. S. RUTHERFORD - 800:

In connection with the problem of training skilled and semi-skilled workers which we are undertaking at present, it has occurred to us that much valuable knowledge might be gained by subjecting the learning process these people will go through to scientific analysis. The objective of such an analysis would be to render explicit the successive discriminations an individual more or less intuitively makes in acquiring skill and proficiency on a given job. We believe that if this could be done, the learning period could be greatly shortened while at the same time the worker himself could be given a better grasp of his task in that the bases of his skill could be more easily discussed and hence understood by him.

Such studies as these would require, among other observations, accurate and complete records of performance over long periods of time. Furthermore these records should show the time required to complete each unit of output. This would enable a large statistical population to be built up and would allow the date collected to be analyzed by varying time intervals.

The question naturally arises as to how such records could best be obtained and the answer which suggests itself is that the time recording device which has been developed by Mr. N. K. Magat would be very well suited to this purpose. In fact this instrument was originally developed with the specific intention of replacing the perferated tape time records which were used throughout the

June 1, 1936.

Relay Assembly Test Room experiments by digit printed time records.

This time recording device has a fairly long history. The idea of developing such a mechanism was originally proposed sometime in 1932 by Mr. T. N. Whitehead of the Harvard Business School, who felt that digit-printed time records would be much better than the perforated tape time records then in use in the Relay Assembly Test Room in that they would be more accurate, save a great deal of clerical work and could be better preserved. This suggestion met with approval and in December, 1938, Mr. N. K. Engst was assigned the job of developing a suitable recorder. An appropriation of \$250, was made for investigating commercial recorders and making a mucket model. The investigation of commercial recorders showed that none were suitable.

Shortly after Mr. Engst was given this assignment
Mr. Whitehead, in a letter addressed to Mr. Penneck dated May 11,
1955, outlined the specifications required in the device and listed
some of its possible uses. Mr. Engst outlined several special
designs to meet these specifications and submitted them to
Mr. Whitehead for comment. The basic design of a machine suitable to him was selected and work was begun on a mucket model.
To meet the cost of this development work the original appropriation of \$150, was increased to \$1000 and later to \$1750. This
development work was retarded due to the fact that Mr. Engst's
time was absorbed in other and more urgent activities. He has
new, however, completed a working model. All the major problems
encountered in constructing the device have been worked out and
it is now being considered for patenting. It is understood that

the product will have to go through a final stage of development, chiefly in design, before it is marketable.

The nature of this recorder can be deduced from the attached photograph of the model. This instrument consists essentially of a timepiece in which the time is given in minutes and decimal fractions of a minute on a six figure counter; reading from 0.001 of a minute (roughly 1/17 second) up to 999,999 minutes (over 16 hours). The motive power and time control is provided by a synchronous motor. A printing device causes the figures showing on the counter to be printed on a moving tape at the instant of closing an electric circuit, the latter being operated by a key, push button or other circuit closing device. The times so recorded are printed in the form of a column on the tape, the earlier times being at the bottom of the tape. This enables elapsed times to be obtained by subtractions of consecutive numbers in the conventional manner. Experience has shown that continuous subtractions with numbers in the reversed order is both slower and less accurate.

Three additional symbols, A, B and C, are provided on the counter; each being brought into position for printing by closing its independent circuit. These letters or combinations of these letters may be printed on the tape to indicate the time and nature of stoppages.

Various uses of this instrument have been suggested for purposes other than our sun. The following list is

MR. G. S. HUTHERFORD:

June 1, 1936.

suggestive of the wide variety of usages to which it could be adapted:

- 1. Time studies for rate setting.
- 2. Research work in practical engineering.
- 3. Number of calls on a telephone circuit for analysis by time.
- 4. Athletic events and speed records.
- 5. Traffic surveys in cities. This recorder would show variations in traffic during the day.
- Research in engineering, physical, physiological and psychological laboratories.

In view of the many potential usages of this instrument and the possibility of its immediate application in our training and research work, we request that five of these machines be manufactured for use in this department. Mr. Engst estimates that this would cost about \$5000. This figure includes the cost of design and incidental development work together with the cost of manufacturing the finished product.

WJD-831-4-M8

H. A. WRIGHT - 831

June 3, 1936

I am attaching two reports on the experiment in personnel work for your information. The preliminary report was issued some time ago but was not given general circulation and we are reissuing it at this time to insure that it reaches everyone.

G. S. RUTHERFORD - 800

WJD-831-4-LT

Att.

Memorandum to:

- All Superintendents at Hawthorne
- All Works Division Chiefs

Copy to Messrs:

- C. L. Rice 0001
- G. A. Landry 1000
- G. A. Pennock 2000
- J. M. Stahr 3000
- R. A. Price 7500
- J. H. Hellweg 900

PRELIMINARY REPORT ON THE EXPERIMENT IN PERSONNEL COUNSELLING

General Statement of the Plan

On January 17 tentative plans were made for the development of a new kind of personnel work. Under this plan a "Personnel Man" from the Industrial Relations Branch would be assigned to a group of approximately 300 employees. This man would devote his entire time to interviewing these people, contacting their supervisors and familiarizing himself with the work being performed. It was felt that such a specialist could perform a very real function both for the organizations to which he was assigned and for management. By having direct personal contact with each and every employee, he could give their problems much more attention than they are now receiving; he could bring their problems to the attention of proper authorities and thus serve as a coordinator of existing agencies; he could counsel the supervisors about problems in their organization and thus aid them in solving them; he could, by interviewing the employees, dissipate many of their apprehensions and emotionally reinforced ideas and, finally, he could keep management informed of the general effect of its policies at the work level and of problems which are impersonal and general in character.

It was felt that this plan was in line with and followed logically from the interviewing program and related studies which were made from 1927 to 1932. It was also felt that such a plan would place the personnel counsellor in the same relative position that management has already found successful in the handling of

materials and equipment. From time to time the Company has found it beneficial to develop specialists in certain aspects of manufacture. This plan would simply add a specialist in personnel problems who could give the line organization the benefit of his knowledge and findings.

In outlining this plan considerable attention was given to the qualifications of the "Personnel Man" and his relations with the departments in which he would work. It was felt that he should be well grounded in Company organization and procedure and that he be well trained in the technique of the personal interview. As to his relationship with the group to which he would be assigned, it was felt that he should report to an outside organization, the Industrial Relations Branch, and that he should function in the group without any definitely recognized authority except the right to interview employees and study the general work situation including relevant departmental records. It would be important for him to use the information obtained from individuals in a way that would cause no embarrassment to anyone; otherwise he would not be able to function.

Procedure in Introducing the Experiment

It was decided to try this plan out experimentally in Department 6364, an organization of about 150 employees, so as to learn from actual experience what its possible merits and demerits might be. A man was selected from Department 6086 to conduct the experiment. A detailed outline of the procedures to be followed in setting up the experiment was then prepared and the division chief discussed it with all the supervisors concerned at two meetings

held on February 6 and 7. At these meetings the plan was presented clearly and in detail. The supervisors had few questions after the talks and the plan seemed to be acceptable to them. Following this introduction the "Personnel Man" started interviewing employees and getting acquainted with the supervisors in the department.

Summary of Experience to Date

It is impossible at this early date to draw any final conclusions from this experiment. The investigator has spent about six weeks in the department so far. During this time he has interviewed 22 employees and has spent a good deal of time contacting the various supervisors. It was thought important to develop satisfactory relations with the supervisors at the outset and (1) to get a picture of the general work problems as they appear to them, (2) to get a thorough knowledge of the work done by the operators and the requirements that are made of them, and (3) to learn as much as possible about each supervisor's attitude toward his personnel problems. This general background is regarded as essential to an adequate understanding of employee complaints.

At the present time the major problems in this department from the supervisors' standpoint are, in the order of their importance, (1) Group earnings and piece rates, (2) Schedules and work difficulties, (3) Difficulties involving the supervision of individual employees. On the whole, the supervisor's time is so occupied with the first two of these problems that he has little time for the third.

(1) Group Earnings and Piece Rates

This is the major problem in all sub-departments in 6364. It is partly due to the fact that low activity does not permit employees to work full time on one job. Partly it is due to a lack of low grade operators who are efficient on several jobs. Another difficulty is that the new piece rates seemingly do not permit earnings that are comparable with past earnings for comparable work. The supervisors are spending most of their time trying to overcome these difficulties because they believe that 90% of employee dissatisfaction is the result of earnings that are considered low.

(2) Schedules and Work Difficulties

The balance of the supervisors' time is mostly occupied with a variety of problems involving work assignments, difficulties with machines, materials and back schedules. Inasmuch as these are only of indirect importance in this experiment, they need not be commented on.

(3) Supervision of Individual Employees

With the exception of the problem case, which is studied carefully by every supervisor in the line before a decision is reached, the supervision of the individual does not appear to be a major problem from the supervisors' point of view. This seems to be due to the following reasons: (a) Employees do not take all of their complaints to supervisors for they say, "He won't do anything about it"; "he will think I'm a kicker"; or "it wouldn't do me any good as he would be down on me". (b)

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The lower level supervisor's time is taken up with running the job and there is a general resistance to bothering him or to taking things over his head. (c) Supervisors in general are apt to discourage the employee from taking complaints up the line as it may reflect on them personally.

The employees contacted have been selected from all of the sub-departments involved in the study. Some of them were classed as problems or "chronic kickers" by the supervisors but, for the most part, they were considered average employees. Their problems, with the exception of two men who appear to be rather serious cases of personal maladjustment, are largely personal. Many of these problems are dissipated during the interview, that is, the employee himself comes to feel that no definite action can be taken and that the problem is comparatively unimportant. Some of the employees, however, raise questions that can and should be answered. Many of these involve new piece rates and earnings. These questions are apparently assuming more importance each day as employees are becoming convinced that rates are being cut. No definite action has yet been taken to obtain answers for the employees on any of these questions. If the demand is strong, they are urged to see their supervisor. In a few instances, the investigator has informed the supervisor of the complaint, but in no case has immediate action been requested.

One employee's problem was called to the investigator's attention by a supervisor. The employee felt that he had a grievance because of several transfers, each of which involved

a cut in rate. In the interview, it developed that he had several physical disabilities and that after a prolonged illness, he was given an easy job that paid over a dollar an hour. At the beginning of the depression, he lost this job and since has been moved around because he was not particularly efficient on any assignment. This case was discussed with the supervisors and they decided that the employee should be advised of the reason for the transfer, and of the possibilities of future advancement on the job. They were evidently very successful as the investigator talked to the employee during the next week and he appeared to be more satisfied. It was also noticed that his efficiency had increased decidedly.

The investigator is also experimenting with another problem that appears to be entirely a personal difficulty. In this case, the cooperation of the hospital, the Psychological Testing Section, and the supervisors has been secured in an effort to help the employee make a personal adjustment with the aid of a series of interviews. There is considerable doubt in the investigator's mind and in the minds of the supervisors as to whether this man can be returned to usefulness, but they feel that an effort should be made as he formerly was a supervisor and, at present, could not be satisfactorily placed on any job. The other alternatives, a disability pension or dropping the man from the roll, need further consideration. They will be considered only if all other efforts fail.

7.

The investigator's contacts with employees include two employee representatives. They both expressed interest in the plan and seemed to feel that it would help them in their relationship with their constituents and with the supervisors.

They seem to need some help as they feel pressure from the employees urging action that is opposed by the supervisors.

They also feel that a good part of this demand for action is emotional, but as representatives they can not oppose it openly as they will lose their jobs as representatives. Inasmuch as this situation is not very satisfactory to the employee representatives or the supervisors, the investigator plans to work along with the former to relieve as much of this sort of pressure as possible.

One other item of interest may be mentioned. This is the fact that the employees have spontaneously associated this experiment with the old interviewing program. This has helped a great deal in getting their confidence and in establishing satisfactory relations with them. Almost all of them have expressed appreciation of the interview and of the opportunity to talk things over.

Summary

In general, it may be said that these first six weeks'
work indicate that the plan is beginning to satisfy a need that has
been felt for some time by supervisors, employees, and employee representatives. The supervisors seem actively interested in the plan

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and, in several instances, they have said that they would welcome the assistance that the "Personnel Man" might offer in helping them to gain a more complete understanding of their human problems and in getting their thoughts and their problems up the line.

With regard to the employees, it is sufficient to say that they are all as interested in the plan as they were in the Interviewing Program. They go out of their way to speak to the "Personnel Man" whenever he is in their section. They talk openly and freely of their problems and this in itself appears to be beneficial to them.

In view of this experience, it is felt that the groundwork is being laid for a program that fits into shop situations without disturbing the work that these organizations perform and which at the same time can go a long way toward alleviating many of the problems industrial organization presents.

WJD-ACM-6086-4:WC 4-8-36

SECOND PROGRESS REPORT ON THE EXPERIMENT IN PERSONNEL COUNSELING

In a preliminary report of the progress made in the experiment in personnel counseling, issued on April 8, it was tentatively concluded that the groundwork was being laid for a program that could fit into shop situations without disturbing the work these organizations perform and which at the same time could go a long way toward alleviating many of the problems confronted by these organizations. This statement seemed warranted, first, because of the cooperative attitudes toward the experiment which were shown by the supervisors, the employees and the employee representatives, and, secondly, because the investigator was able to obtain data relevant to supervisory and menagerial problems that had not previously been available. It was found that many employees were reductant about taking their problems to their supervisors and that many supervisors were so occupied in running their jobs that they had very little time to devote to such problems anyway. Mention was also made of the fact that many of the problems the employees discussed were modified considerably during the interview whereas others seemed to demand action of some sort. At that time the investigator had not formulated any plan for handling the latter cases other than encouraging certain employees to take action themselves.

Summary of Experience Since April 8

Since the previous report was issued the area covered by the experiment has been extended due to a change in the organization of Department 6364. The Iron Work and Power Board Sub-Departments were

taken from this organization and the Jack Ringer and Key Sub-Department was added to it. It seemed advisable to continue in all of the sub-departments previously covered and to include the new sub-department as a part of the experiment. This would give the investigator the opportunity and experience of dealing with two department chiefs instead of one as before. With the same thought in mind, it was felt that there might be values obtained if the experiment were extended to include the Cross Bar Switch Department. Inasmuch as this department was being organized to manufacture an entirely new product and a force was being built up almost exclusively of new employees, it was felt that the inclusion of this group would place a more typical variety of conditions within the scope of the experiment. Accordingly, on April 20 all of the supervisors in these new territories were advised of the extension of the program at a meeting in Mr. Reab's office. This extension brought in about 100 additional employees making a total of some 350 with whom the investigator now has to deal. In addition to this force, the investigator is contacting the thirty-one supervisors who comprise the supervisory staff in the eight sub-departments now included in the experiment.

In addition to this expansion there has been considerable progress made in the experiment itself. The investigator feels that the values in the experiment are coming up to the expectations of it as described in the previous report. In other words, he feels very strongly that progress is being made toward creating a more harmonious work relationship among employees and between employees and their supervisors. In addition, this broader experience has resulted in a more definite idea regarding the types of problem that may be expected and the techniques that may be employed in solving them.

Ordinarily these problems fall into one of three classes: (1) those which involve a personal adjustment of the employee, (2) those which require some sort of supervisory training, and (3) those which may require some alteration in the work situation itself.

Cases Requiring Personal Adjustment

Cases requiring personal adjustment are those in which remedial action must come primarily from a reorientation of the individual to his surroundings. In these cases the difficulty is ordinarily not in the external situation but in the individual's personal situation. The symptoms ordinarily encountered comprise such things as exaggerated demands of the situation in which the individual is placed, irrational fears, feelings of frustration, inferiority or futility, inability to attend to work, and so on. In such cases little can be accomplished apart from sustained, careful treatment of the individual.

So far four of these cases have been encountered among the thirty-four people interviewed. These four are rather extreme cases; there are many others where the same general type of difficulties are present, but they are much less serious and do not constitute a major handicap to the individual's performance. One of these more serious cases was mentioned in the previous report. The investigator has had several subsequent interviews with this employee and the progress to date is very encouraging. This progress is no doubt due in part to the interviews, but it is also due in no small measure to the interest and cooperation shown by his supervisors. Among the three newer cases,

one of them has been a management problem for some time. His general attitude is that "the company owes me a living". This attitude in itself is a difficult one for a supervisor to handle. It is made even more difficult in this case because the individual does not seem to be appreciative of the fact that the Company on two different occasions went to considerable trouble to help him. The supervisors now handle him with "silk gloves" to avoid stirring up more trouble. Of the other two cases, one develops headaches or other physical ailments immediately he is put under pressure or told to do something he doesn't like. The other case is one in which the individual's family situation has led to exhorbitant demands of and corresponding disappointments with the Company. Although it is not safe to generalize from such a sample as this, the indications are that these problems of personal maladjustment may be more common than is frequently supposed and one worthy of serious attention.

Cases Requiring Some Sort of Supervisory Training

Although the investigation has not proceeded far enough to provide a well rounded picture of this problem, it is evident that some supervisors might spend more time or give more attention to certain problems if they knew of their existence. These problems vary all the way from individual difficulties similar to those described to such group problems as restriction of output. It looks as though considerable training value will be derived through discussing such problems with individual supervisors. In addition to such individual training, the investigator feels

that problems will arise from time to time which can best be handled through group conferences. Where such problems are confined to a department or are peculiar to certain work situations these conferences will be conducted by the personnel counselor himself. If, on the other hand, the problem is fairly general it will be referred to the Supervisory Training Section for disposal. One such problem at the present time is that of training new employees and inducting them into the organization. This problem is being worked out by the supervisory training group at the present time.

Cases Requiring Alterations in the Work Situation

for the data gathered from the interviews taken so far, it looks as though the chief problems under this heading are related to job placement. For example, one employee who is thoroughly dissatisfied with his work now, formerly spent most of his time on the same type of work but it was in another organization and was more complex. He did not mention a transfer to the investigator but such action is indicated as at least a partial solution to his dissatisfaction. Another instance, is that of an ex-supervisor whose outside interests are in social work and community activities. This person might be much more valuable to the Company if he were offered work more in line with his interests and experience. At the present time these cases require more study. They are

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mentioned here as a possible activity which will require considerable attention in the near future.

In addition to making these rough discriminations among the various kinds of problem he has encountered, the investigator has observed a general shift on the part of the supervisors toward more interest in their personnel problems. This is most noticeable in locations where they are not burdened with an excessive amount of detail work. This change together with the spirit of cooperation shown by the supervisors throughout the experiment is worthy of noting. This change in attitude toward personnel problems is probably due largely to the investigator's general activities as a personnel counselor rather than to any specific advice or training he has given them.

Problems in Connection with the Experiment

The activities described suggest that the experiment is slowly proving itself in as a worthwhile undertaking. During this time, however, certain problems have arisen which should be discussed at this time.

in turn give employees an opportunity to talk to the counselor more frequently. The values in this area are obvious. If the experiment was being carried out more intensively, data would be available at all times on questions of importance at the moment. For example, data would be readily available on such a question as the attitude of the new employee toward the Company and his training needs. Similarly such a question as the effect of the coming rate revision on the employees who will have their hourly rates reduced could be readily answered if more investigators were in the field.

Incidentally, the investigator is now working on the latter problem and is interviewing the people who will be thus affected, but progress to date is unsatisfactory due to insufficient time.

A second and quite different problem is that of handling the material gathered by the counselor. Under the old interviewing program this problem did not arise because the material was divorced from particular personalities and was used only in a general way. The counselor, however, must learn to use this material so as to get the most good out of it, yet at the same time be faithful to the trust placed in him by employees and supervisors. This requires good judgment, careful analysis of each step taken and experience in handling a wide variety of problems. At present it is felt that the surest safeguard is to proceed carefully and to refrain from any action the consequences of which cannot be pretty well thought through. An attempt is being made to write up the most interesting of these problems together with the steps taken in handling them with the hope that they can later be classified and used as case material in training new counselors.

Finally there is the problem of developing new counselors so that they can carry on this work in other locations. It is hoped that the men assigned to this work will eventually develop to a point where they can carry on by virtue of their own initiative and resourcefulness. Too much supervision would be likely to spoil a program of this sort. The personnel counselor should be able to stand on his own feet and meet problems as they arise. The difficulty at present is that there are not many people with the necessary training and experience available. A training program has been

devised to meet this problem, however, which should work satisfactorily. Under this plan the beginner will be given as much training as he can assimilate in the relevant branches of psychology and sociology. This will be done informally and so far as possible it will be shaped with reference to concrete problems which the beginner confronts in his work. The beginner will work in conjunction with an experienced investigator. At first he will be limited to taking interviews with employees, leaving the problem of dealing with this material to the senior counselor. He will, however, be in close touch with the senior counselor who will over a period of time gradually delegate more and more responsibility to him. In this way the necessary control over the new counselors will be assured all during the training period.

Proposed Extension of the Plan

In order to work toward a solution of the problems outlined above, it is proposed to assign two more people to the territory now included in the experiment. One of these people would assist the present investigator by taking interviews with employees. It is unnecessary for him to have had much training as one of the reasons for adding this person is to test out the training program outlined above and to see whether or not the present investigator can use effectively material gathered by some one else. The other person, however, should have a well rounded background of experience and training as it is hoped that after a short time he can be assigned a territory of his own.

In addition to doing this more intensive work in the organizations now included in the experiment, it is suggested that the plan be extended to include the Station Apparatus Shops. The reason for this request is that there, better than anywhere else, the many recent changes which have been made in work and in organization can be observed and studied. Also it is believed that the product type organization may present many new supervisory and personnel problems which were not encountered under the functional organization. Two people, one man and one woman, would be required to begin work in this territory. Both of these people should be experienced and dependable as they would have to carry on their work more or less by themselves.

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JUN 5 1936

MR. T. M. TENTERN, Comptroller of Menufacture
New York

and second progress reports on the experiment is personnel counselling which has been under may here for the pest few months.

En. Journal gave you one copy of the preliminary report when you were here in April. I thought you would be interested in the second report and also might want to show both reports to some of the interested people at drondway.

C. L. RICE.

HAW-831-LT

Vice President

Att.

Park manual

June 5, 1936

Mr. Personnel Assistant

New York

Supplementing my letter of April 20, attoched are two copies of the second progress report on the experiment in personnel souncelling.

I shall forward any subsequent reports to you as they are insued and should be glad to have any comments you wish to make.

Superintendent of Industrial Relations

HAY-851-I.T

Letter to: Mr. Kearny Mr. Point Breeze

831

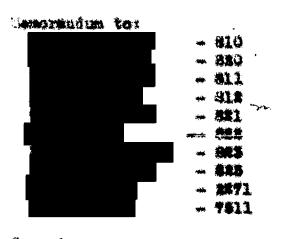
June 9, 1936

Eupplementing my memorandum of April 16, 1936, attached for your information is a copy of the second progress report on the experiment in personnel counselling.

Marine.

Att.

11. a. John - 931



copy no: G. S. Sutberford - 800 An how we would the for see about a down and the formal for see about a down and the formal for see about a down and the formal form

MR. C. L. RICE:

Supplementing my letter July 1, about the personnel experiment of the Nash Motor Company in Wisconsin.

Herewith are two copies of Mr. Kennedy's letter

January 23, 1935, with an interesting article about employee
relations in the automobile industry. The author is Frank J.

Oliver, Industrial Coordinator at the University of Detroit,
whose article appeared in the January issue of the Factory
magazine.

Att.

J (STA)

Western Electric Company

INCORPORATED

195 BROADWAY NEW YORK

CORTLANDT 7-7700

IN REPLY REFER TO

January 23, 1935

PERSONAL AND CONFIDENTIAL

I am attaching a copy of an article entitled "It's 'Hour Rates' in Detroit" by Frank J. Oliver, Industrial Co-ordinator of the University of Detroit, which appeared in the January issue of Factory magazine.

Thile this article deals specifically on the transition from piece work to day work rate in the automobile plants at Detroit, it contains a considerable amount of information which is directly applicable to our problem.

You will note that the general philosophy of the day work payment idea ties right in with our progression plan as used in the Distributing House Shops and points out quite clearly the responsibilities which necessarily go with such a basis of payment.

Some of the information brought out in this article will no doubt be useful in your discussions with your Employee Representatives. but probably should not be used as quotations from it.

/ Ceneral Telephone Sales Manager.

FC:D

Att.

Letter to Managers

Copy to General Managers of Distribution.

Merchandise Managers

General Sales Engineer

IT'S "HOUR RATES" IN DETROIT

Some of the reasons why a group of important automobile manufacturers find it expedient to abandon piecework and bonus.

FRANK J. OLIVER
Industrial Co-ordinator, University of Detroit

Since March of last year, and in increasing numbers since the start of production on new models in December, the principal automobile manufacturers and a few of the body plants in Detroit and vicinity have been quietly swinging back to the straight hourly wage in place of group bonus and piece rates.

The change was made in some plants progressively, department by department, in a period of declining production; in others with the beginning of new model production. Coupled with Ford's workers, who have always been on a day rate, this move places a large percentage of Greater Detroit's factory employees on an hourly rate basis.

Group bonus, group piecework, and individual piecework have been the only forms of wage incentive plans used to any extent in the automobile industry in the past decade. The group bonus and group piecework plans lent themselves readily to a standard cost system, as the bonus was usually set so that labor costs remained constant above 100 per cent efficiency. Group efficiencies seldom went below the task and generally averaged 115 per cent of task, which was liberal and did not set a killing pace. With the group piecework system, as with individual piecework, labor costs by the very nature of the set-up are standardized.

So much for the immediate history and background. This article will attempt to answer some of the questions that come to mind when some of the implications of the change are considered.

What Is This?

Is this a step forward or backward? Is it a recognition of some of the principles of better employee relationships? Is it a frank admission that the conveyor and the machine cycle time the operation and provide all the incentive necessary? Or is it part of the strategy of shadow boxing with organized labor?

Which way has plant efficiency gone, up or down? What changes have been found necessary in applying the old time studies? What changes in cost accounting?

Such a fundamental change in labor policy is profoundly significant because the employee's pay envelope is the very heart of all industrial relations. Yearly wages paid out in one of these large plants often equal the entire capital investment in plant and machinery. Must we revise our conclusion that day work is often inadequate and unfair both to employer and employee in modern mass production?

No, probably not! The chief reason for the change is that changing conditions make different requirements. Under today's conditions the straight hourly wage is considered the best thing. The old incentives are no longer operable. Next year things may be different. A weekly wage may be the order of the day. In these changing times there is no such thing as a permanent policy.

This sort of attitude implies that the change is a matter of expediency. In fact the most significant statement on this score was the remark of an executive to the effect that "of course, there are certain labor slants we don't want to talk about". He did not expand on this point, but in my opinion what he referred to was the fact that, in the undercover struggle going on in defense of the open shop, real efforts are being made to keep labor quiet.

Writing in "Automotive Industries" recently* Athel F. Denham bluntly states: "Initiated by labor and particularly the A. F. of L., the movement toward straight day-rate wages has gathered a momentum at present which bids fair to carry a major part of the industry with it. If organized labor increases its power, there is little likelihood of widespread returns to bonus systems, unless major policy changes are made by such organizations."

Then There Is 7 (a)

In the face of such a situation, and with Section 7 (a) hanging over his head, no manufacturer wants to face a group of collective bargainers over a real issue if it can be helped. The problem then becomes one of simply not letting the issues ever get hot enough for a real debate.

In General Motors's recently published policy on employee relationships, for example, the set-up is obviously designed for the settlement of all disputes within the organization, to prevent as far as possible a case from ever having to be presented to the Automobile Labor Board.

In another corporation severe penalties are placed on a foreman for failing to bring to the attention of the management any situation that might have such a kick-back. While questions of wage payment plans do not properly become subject to any constituted board's jurisdiction, they have formed one of the chief topics of debate in works council sessions. It would have been a mistake in policy to have let this one issue become the rallying point for group action on a large scale.

If part of the process of keeping labor quiet lies in abolishing piece rates and group bonus, there must have been some faults with the system. The main objective of the change, as I view it, is increased satisfaction of the working force — better plant morale.

Not Able to Earn Rates

One of the biggest kicks on the part of the men under the old system was the peaks and valleys in earnings encountered in starting new models or because of fluctuations in schedules and other interruptions to production. Too frequently the men were not able to earn their rates because of material shortages and machine breakdowns -- faults directly chargeable to management.

The men could not budget their expenses readily because they could not estimate their earnings closely. Furthermore, they often found it difficult to compute their earnings, even though sometimes efficiencies and rates were posted daily to aid these calculations.

* "Day Rates Supplant Group Bonus," Dec. 8, 1934.

With group bonus it has always been difficult to find a completely satisfied group. The fast man feels he is being held back, as indeed he often is, and the slow one is the goat of all the others. In a 10-man group, if one man increases his output 10 per cent, he gains only 1 per cent bonus because the increased efficiency is shared by all members of the group. Such a situation tends to bring the output down to the level of the average low producer of the group, and the incentive fails.

Piece rates or group bonus are usually computed on the basis of allowing the average worker to earn a fixed amount a day, say \$6.50. There is a great temptation on the part of management to find some excuse to cut the rate if the earnings of a worker or group of workers is much out of line with other earnings in the plant.

Making considerable or even slight changes in the method or introducing new tools or machinery are legitimate reasons, but the rate is generally cut so that the average worker still earns his \$6.50 a day. Management does not tend to share the benefits of new methods with the workers. Not every shop operates on such a policy, but the average Detroit mechanic has worked in a dozen plants, and general impressions persist.

As a result these men get the idea that there is a very definite limit be—yond which they dare not go. They are afraid to "kill" the job for themselves and their fellow workers. And the fellow who kills himself in a group is just a "sucker". There have been numerous cases of direct soldiering on the job for fear the rate will be cut. Fear of scorn or bodily injury will often hold a man back. Comparisons can become really odious under a piecework plan.

Traditional Opposition

Piece rates and group bonus have been traditionally opposed by organized labor on ethical grounds — namely, that such systems tend to awaken greed in workers and stimulate unrestricted competition between them. From another viewpoint, collective bargaining reduces the workers to a common level — that of the low man — and does not attempt to secure greater benefits for the more efficient workers.

Much of this labor attitude just reviewed has been expressed through works councils, A. F. of L. locals, and other forms of employee representation. In one organization, the management went a step further and asked the men directly for an expression of opinion as to which method of wage payment they preferred. There was a general preference for the flat hourly rate.

Although it appears on first analysis that all the benefits are in favor of the worker, there are also a number of advantages that management gains or retains.

In the first place, the change was made after the industry had operated on a bonus or piece rate system for many years. Most of the common operations have been motion studied in detail and definite methods of operation adopted. Rates and standards have been set as a result of painstaking time studies. A definite task or measure of what constitutes a day's work has been established. The performance of groups, individuals, or departments may be measured and compared.

Need for Other Incentives

In making the change-over to the flat hourly rate, the manufacturers have made no changes in standard times or in standard costs, under which most of them operate. It is expected that the same efficiencies will be maintained. This implies substitution of other incentives.

In effect, what has happened is that the incentive has partly been transferred to the foremen and other group leaders, and has partly reappeared in other forms. Departmental supervisors must still meet the old bogies of performance. Through foremen conferences and re-education of foremen, some corporations are trying to develop leadership methods rather than driving methods to attain these results. For one thing, the organization throughout is more alert to provide work for employees while they are in the plant because non-productive time is at management's expense, instead of at the worker's as before.

One plant official remarked that the men had "let down" as a result of the introduction of the new plan, but that the efficiency of the plant as a whole had gone up.

"The management didn't stop the men so often," was the way he explained it. The principal stoppages had been due to lack of coordination between operations, material shortages, and machine and conveyor breakdowns. The men lost under the old system; the factory loses now, or rather sees to it that it does not lose.

As another high official put it:

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"There is no so-called incentive plan that will make a man work unless he is provided with work uniformly. When that is done, no incentive plan is necessary."

In another plant the belief is expressed that the average good workman wants to produce a good day's work for a good day's pay; to win the respect of his foreman and his fellow workers; to be fair and honest; to receive proper credit for work well done. Some of the incentives suggested are pride in workmanship, desire to excel, desire for recognition, credit for accomplishments, and above all the desire to give full and satisfactory work in order to hold a well-paying job.

Conveyor Sets Pace

One of the questions propounded in the early part of this article implied that perhaps a wage incentive was not necessary because the conveyor set the pace. To one who has observed a modern assembly line in operation this seems to be a satisfactory explanation. Unfortunately, however, there are a multitude of operations, particularly in the machine shop, that are not conveyorized and where such a broad statement does not hold true.

In the past, payment of time wages proved unsatisfactory from management's viewpoint largely because no comparative individual records were kept, and all workers in the same class received the same wage.

With working conditions standardized, however, with a plan of production control in effect, and with the best method and a standard time a matter of record, the straight hourly wage takes on a new aspect. Each workman knows

what is expected of him. Records of individual output are kept. The management has a definite basis for wage increases and promotions. Such rewards for meritorious work stimulate other workmen and have a beneficial effect on shop morale.

In other words, such a system becomes as much a wage incentive for extra effort as any yet devised. This is in my opinion the most significant aspect of the whole change.

One of the chief incentives now offered lies in the attainment of a classification or rank. Obviously, in order to maintain or increase employee satisfaction, which is the major objective, it is necessary to set hourly rates so that the worker earns approximately the same as he did before for the same output.

A Typical Rate Structure

There are usually about three flat hourly rates for a particular job corresponding to base rates under the bonus system. A typical rate structure for drill press operators, for example, would be as follows:

		Base Rate	150%	Flat
		Bonus	Bonus at	Hourly
		Plan	115% Task	Rate
Beginner		\$0.50	\$0.75	0.70
Production		0,52	0.78	0.75
Top	•	0.54	0.81	0.85

Detroit still leads in comparative wage rates. This group represents a fairly wide spread in wages and provides an incentive to reach the top scale. Besides, there are classifications set up at the behest of the Automobile Labor Board that provide even greater incentives.

These classifications refer to preferential lists during lay-offs and in rehiring. To be classified as a (d) man means that a worker is essential to the operation of the plant or has exceptional ability. Such a man usually survives all lay-offs. A (c) man (married) and a (b) man (single) have seniority rights in terms of years of service so that the incentive does not apply here, but to attain a (d) status provides a tremendous incentive for job security to the lower groups.

The (d) man is an all-around mechanic who can handle almost any job in the department. Under a straight hourly rate plan, foremen are encouraged to rotate their good men without the usual kick from the men that they lose money on a new and unfamiliar job.

Conversely, there is a negative incentive in the threat of dismissal for lack of efficiency. A dismissal is a very serious action in these times. Much greater responsibility is placed upon the foreman than before, not alone because he must be able to substantiate his action against claims of discrimination, but because he must really know what his men are accomplishing.

He must be constantly informed as to the rate of production of each employee and see that the hourly rate paid is justified. He must study the jobs and the men, and learn how to manage and control. He must see that each worker does his share of the work accurately and without too much scrap.

This procedure requires frequent contacts with the men. In other words, it means putting full control of production back in management's hands and out of the control of groups operating on a bonus plan.

One company has introduced a form of rating that is useful in a merit classification of workers. A man is scored on five counts — workmanship, conduct, application, attendance, and safety. On each count he may be scored: First Class (superior), Second Class (average), Third Class (tolerated only in case of labor shortage), and Unsatisfactory.

This rating was originally designed for picking out the (d) men and handling dismissals, but it is equally satisfactory for setting rates and supplying an incentive.

With a straight hourly rate in effect, the foreman's real job is to bring up the work of the weak producer and place him properly. If that cannot be done, the foreman must dismiss him. At the time this article was written (mid-December, 1934) there were relatively few cases of dismissal reported, but then the new production schedules were hardly under way, and mostly (d) men were working. What will happen when production is in full swing remains to be seen.

Watch Turnover

Another factor that will be watched with much interest is the one of labor turnover. Twenty per cent a month was not unusual in some plants last year. The attack on this problem is being made through foreman training as it is felt that faulty supervision was largely to blame. The much closer supervision required under the new wage plan is bound to have a beneficial effect.

Naturally, foreman training is concentrated at the moment on the employeremployee relationships. New texts have had to be prepared to acquaint the supervisory forces with the new wage payment plan and to re-educate foremen as to their added responsibilities. It has not been an easy task to develop enthusiasm for a new plan after the management had been selling them on the advantages of piece rates and bonus plans for the last quarter of a century.

In one plant an old timestudy man experienced in several forms of wage payment plans is devoting all his time to this sort of education, either in the form of group contacts, conferences, or personal contacts. In addition, the factory manager has been conducting meetings. In another plant where a department of industrial education was already in existence, the only change in routine was to prepare some new text material in place of the obsolete lessons on group bonus and group piece rates.

What of Costs?

It was mentioned earlier in this article that the same standard labor costs remain. In actuality this is probably what is going to happen in the present automobile year: During the first months of production, actual labor costs will exceed standard costs by reason of delays and difficulties in getting new tools and new line-ups working on the 1935 models. During the last few months actual costs will be under standard costs because all the "bugs" will have been worked out and the workmen will have developed added skill.

The net result will be that standard labor costs will average out over the life of a particular model.

Work of the timekeeping department will be greatly lessened on the new basis because a great volume of group calculations are eliminated. York of the cost department will show little increase because the time standards must be maintained.

The conclusion reached after considering all the factors is that although the change from piecework and group bonus was made largely as a matter of expediency, advantages will accrue both to man and the management.

Old conceptions of a time method of wage payment must be altered. Other forms of incentive still based on the worker's self-interests have been substituted for the old stimulants. Compensation is still on the basis of the relative productive capacity of the worker; the management knows what constitutes a good day's work.

Greater Employee Satisfaction

From the management's point of view, the chief gain has been in keying up the whole supervisory organization to provide a uniform flow of materials and parts through the plant. Greater employee satisfaction will be achieved. One cannot help feeling, however, that the will of labor in the automobile industry could not have made itself felt thus strongly in the pre-Roosevelt era. It only goes to show how influential "collective bargaining" has become under the NIRA.

personnel activities very naturally vaiding when put all together under two evers there is a quach deal factivity aboy propersies him. The right is a tribute to hisolopmul point of win I your proper and

ATTITUDES OF SHORT AND LONG SERVICE EMPLOYEES BASED UPON DATA OBTAINED IN PERSONNEL COUNSELING

Since the second progress report on the experiment in Personnel Counseling was issued on May 27, 1936, the personnel devoted to this project has been increased from one to five people. In addition to this increase in personnel, the experiment itself has been extended to the Station Apparatus Shops. Two people, one man and one woman, are at present devoting their time to interviewing employees in the Hand Telephone Set Division of the Station Apparatus Shops. Two people are working in the Central Office Division and one in the Piece Part Division of the Central Office Shops.

Inasmuch as the new personnel counselors have been working in their territories only a short time, it is impossible to assess the functioning of the plan as originally outlined at this time. Instead this report will be confined to a discussion of the attitudes of the employees who have been interviewed so far. Inasmuch as 87% of those interviewed have less than one or more than fifteen years' service with the Company, we shall, for the most part, be concerned with the attitudes of these two groups. In passing it might be said, however, that the experiment is progressing satisfactorily and the counselors are especially appreciative of the cooperative spirit shown them by supervisors of all ranks. It is expected that this work will proceed rapidly now that the new counselors have gotten acquainted in their territories and have had some training and experience.

Number of Employees Interviewed

So far 122 people, 108 men and 14 women, have been formally interviewed. This figure does not include contacts with some fifty

supervisors, informal talks with employees at work, or follow-up interviews with the same employee. When the last count was taken, which was about August 1, there were 572 men employed in the ten sub-departments from which the men interviewed were selected. Inasmuch as the men interviewed comprise 19% of this total their attitudes should be fairly representative of this entire group. All of the women interviewed are in one sub-department. While fairly representative of the new employees in this sub-department the sample is, of course, much too small to be considered representative of all new women employees. Fifty, or 41% of the people interviewed have less than one year of service and fifty-six or 46% have over fifteen years.

Attitudes of New Men Employees

The attitudes of the new men employees cannot be understood apart from their background and training. As a group, those interviewed are fairly young, being in their early twenties. Nearly all of them are single and all but a few have had at least two years of high school education. The majority are high school graduates, and a few have had some college work. The impression of the counselors is that they are well above average in intelligence and ability. As a group they are very ambitious, curious as to what is going on about them and eager to learn all they can about the Company and possibilites for advancement.

In view of this background it is not surprising to find this group very preoccupied about advancement. Practically everyone interviewed has in effect remarked, "The job I'm on doesn't require any brains. Anyone could do my job. I certainly don't want to stay on that kind of work very long." Statements like these indicate that most of these young men regard their present jobs as the first step

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in the ladder. This condition is reflected in the unusually large number of applicants for apprentice training arising within the Plant.

Without exception these people express themselves as being glad to be working with the Company and those who have worked elsewhere compare the Company very favorably with the companies they worked for previously. In other words their demands for advancement do not imply criticism of or antagonism toward the Company or their supervisors. They are simply seeking to satisfy demands and ideals which have been instilled in them by their families, schools and general social environment.

Although these new people have not yet become at all pessimistic about their future it is quite possible that they may be in a few years. In fact the personnel counselors feel that one of the chief supervisory and personnel problems in the near future will be that of handling the demands of this group for social mobility. Perhaps the normal expansion due to improved business can meet the demands of those who are now in the Company's employ. If the Company continues to hire a large proportion of high calibre men, however, it is quite likely that we shall have to face the problem of adjusting these deeply rooted and socially determined demands to the actualities of the work situation. This would be a difficult process and at best could not prevent considerable frustration or labor turnover.

Wages, for this group, seem to be of secondary importance to advancement. None of them has voiced a serious complaint about wages. The complaints which have been received relate chiefly to differences in rates of pay for the same kind of work. The following statement is typical of these complaints: "I can't understand why X is getting

more money than I am. I have been here as long as he has." Opinions to the effect that they would earn more for the same amount of work under piece work are also encountered, particularly among those who have friends or relatives in piece work departments. In connection with the subject of wages it may be of interest to note that in one location where a general increase in hourly rates was recently made few of the men interviewed voluntarily mentioned the subject. When questioned they all say they were glad to get it but the investigator's impression is that they were not much affected by it.

At first it may seem puzzling that these people who express great interest in advancement and wage differentials show so little enthusiasm over the general increase in hourly rates. If regarded in the light of their personal background, however, it will be seen that this is the kind of reaction one might expect. It would seem that to the great majority of them this raise, while welcome, did not mean advancement. In the first place it was general and therefore did not imply any differentiating or singling out process. Inasmuch as the chief social process involved in advancement is that of differentiating the individual from the group it can be readily understood why this general increase did not mean advancement to them. Following this same line of thought we also have an explanation as to why they do seem interested in wage differentials. These differentials serve to separate people out and therefore carry social significance to the employees. Any difference of this sort therefore may serve to light up preoccupations concerning advancement and questions as to why the differences exist are likely to be raised. In other words the same factor, preoccupation over advancement, lies back of both these apparently dissimilar phenomena.

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In addition to the fact that the raise was general and therefore undifferentiating, the employees' attitude toward it could also be understood in light of the fact that these young men are no longer boys. They are adults and many of them are making plans for marriage and other responsibilities of adulthood. It is quite likely that few of them regarded this raise as a very big step toward fulfilling their social and financial prerequisites for an independent adult life.

Attitudes of New Women Employees

Judging from the admittedly inadequate sample of eleven new women employees interviewed, the situation with them seems to be quite different from the men's. Like the men, they indicate that the Company compares favorably with other concerns for which they have worked. Unlike the men, however, they express little interest in advancement. Most of them say that their work is fairly interesting and not difficult, and they feel that the Company pays very well. Most of them expressed surprise and pleasure over the recent raise they received. Others, when questioned, did likewise.

The average education of the women interviewed is a good deal lower than that of the men. The majority of them have had no high school training. In their interviews they tend to talk about personalities, social events and purely personal problems. Most of their problems are such that they do not feel like talking about them with their supervisors. Several of the women have expressed a desire to know more about the Company's Benefit Plans, the Building and Loan Association and the Hawthorne Club Evening School.

One of the most interesting things about this group is the fact that although not particularly interested in advancement they seemingly were much more enthusiastic over their raise than the men were. Perhaps the reason they were so pleased is to be found in the very fact that they do not expect much in the form of advancement. Their thoughts and interests are in the immediate monetary return on the job. Any additional amount pleases them because of its immediate value and use. The men, on the other hand, instead of essessing the raise in terms of articles to be purchased by it, tend to project it against a huge chart of their future and of their ideals, in comparison with which it seems small and less meaningful.

Attitude of Long Service Employees

Fifty six or approximately 45% of the 122 employees interviewed have 15 or more years of service. These employees fall into two distinct groups: Those who were formerly supervisors and those who were not. For purposes of clarity the attitudes of these two groups will be described separately. In presenting this material care has been taken to present it essentially as it was received from the employees. If therefore represents only a statement of employees' thoughts and feelings. These attitudes are sufficiently general, however, so that they may be considered typical of the groups described. Ex-Supervisors

Twenty-one of the long service employees interviewed are exsupervisors. Of this number three have made a satisfactory adjustment
to their present status, three have made a fair adjustment and the rest
are quite open in their complaints. Of the group who have made a
satisfactory or a fair adjustment little need be said as they either

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believe that they will go back to a supervisory position soon or they believe that they have fared better than most ex-supervisors during the depression and are therefore satisfied to let well enough alone. Those who are satisfied to let well enough alone are people to whom an optimistic attitude comes naturally and, while in most cases the demands made on them at home are not as strong as among most of the dissatisfied employees, their general feeling of optimism can be attributed almost entirely to their ability to make favorable comparisons between themselves and others.

As the attitudes of the dissatisfied group of ex-supervisors are very closely connected with a series of events which occurred during the depression and with what they considered management's policy to be prior to the depression, it may be well, first of all, to summarize their interpretation of these events.

Speaking generally, it may be said that this group feels that a major shift has occurred in management's policy and in management's attitude toward them. They feel that, particularly during the last year or so, more and more emphasis has been placed upon efficiency to the neglect of other factors, such as service and former status, which mean a great deal to them. In support of their contention that a shift in Company policy with respect to personnel has occurred, they usually make the following observations.

Prior to the depression, during the years while these employees were supervisors, they observed that many increases in hourly rates were made which, in their opinion, were not warranted strictly on the basis of efficiency. They interpret this to mean that the Company, at that time, recognized other factors besides sheer efficiency as worthy of

monetary recognition. Later on, when the depression came and they were all demoted, they still saw nothing in management's actions which they could construe as being incompatible with their original interpretation of the Company's policies. At that time they were, in many cases, offered a choice of several high grade jobs, and in some cases they were assigned an hourly rate which, even though outside the rate range for their jobs, returned them a wage equal to their old supervisory rate. To them these actions meant not only that their service was being rewarded but also that management felt they deserved special consideration because they were formerly supervisors.

The first suggestion of a change in policy, they feel, came when they were informed that in justice to other employees in the group, their rates would have to be adjusted to the maximum of the grade. Following this announcement many rates were so adjusted but, and to them this is important, not all of them were adjusted nor were the complete adjustments made at one time. The fact that all of the rates were not adjusted signified two things to them. First, and most important, it reflected a confusion between announced policy on the one hand and practice on the other. It reflected a departure from the logic given them for making the reductions and they began to doubt the sincerity of that logic. Secondly, it ruised doubts in their minds as to the criteria actually used in deciding who should and who should not have his rate reduced. The fact that the total reduction was not made at one time only served to increase their doubts and to add to their uncertainty. For, during the time these piece meal reductions were being made, they were never at all sure of what would happen to them at the next revision period.

The final stage in this process of growing confusion and disillusionment, according to the employees, came when employees whose rates were still outside the labor grade were advised that their rates would have to be cut. Among those who were thus affected were some of the more efficient employees in the group. These people were cut even though the entire group of their associates felt that they were doing their best and looked upon some of them as the most efficient employees emong them. In effecting these adjustments some employees were in effect told, "Your rate is \$.06 over the maximum of the grade, but as a reward for service, it will only be reduced \$.03." In informing them of these reductions, the supervisors stressed efficiency and the need for each individual contributing a fair share toward group earnings. In some cases the employee was told that his rate would be reduced again if he did not improve his output. In talking to the personnel counselor these people are positive in their claims that they are doing all they can and therefore feel that all the future holds for them is another rate reduction.

This last sequence of events has affected those employees who, although they had many apprehensions before, were not vitally affected until that time. It also tended to add to the qualms of the other long service people. To many of them it meant a reversal of Company policy. To others, who were really asking more than anything else during this period of adjustment that the rules of the game be definitely stated and adhered to, it meant that even though the rules now be definitely stated and even though they play the game well according to those rules, they cannot feel sure that the rules won't be switched just when they are playing their best. It meant, in short, that both of the pillars upon which their security was based, efficiency and service, were not the substantial things they once thought them to be.

In reflecting upon this situation these people concluded by asking, "Where will it end? What am I working for and what can I do about it?" In searching for an answer they took stock of themselves and fell back on the fact that their work as a supervisor was never criticized. A few of the more aggressive inquired of their supervisors regarding opportunities for being reinstated as a supervisor. In all cases the answer was indefinite and in some cases the employee was discouraged so that he believed he would never supervise again. These people, in talking over the problem with others, crystallized a general belief that very few ex-supervisors would "go back".

More recently this picture has changed somewhat and the counselors note an increasing amount of optimism. This group has observed that several of their number have been reinstated as supervisors and they notice preparations for more openings in the near future. They also note that no new employees have been promoted to supervisory jobs, and their supervisors have been able to encourage in some of them a feeling that they may not have to stay "on the bench" very long. These activities apparently have had a decided effect upon them because their attitudes, while still pessimistic, are not nearly as hopeless as they were before. Two employees interviewed recently expressed considerable irritation over the fact that the employee representatives had arranged for them to be interviewed by their superintendent. They said, "He (their superintendent) will think we're a bunch of cry babies, and he'll think we can't take it. I didn't want to see him." This would indicate a growing feeling of pride and self-reliance. Other employees whose dissatisfaction was very obvious a few months ago are now looking forward and "waiting to see what happens."

Other Long Service Employees

Of the 35 long service employees interviewed who have hever achieved supervisory rank, 12 appeared to have made a satisfactory adjustment while the other 23 were very outspoken in their complaints.

A small percentage of the first group appear to be waiting for pensions. They do not expect advancement of any sort and are, therefore, content to do enough work "to get by" if they are let alone. They say, "I'm pretty well fixed" or "I got my kids working now so I haven't much to worry about." The attitudes of the balance can be described as identical with the satisfied ex-supervisors. They feel that they have been fortunate as compared with others and are, therefore, optimistic regarding the future.

The other 23 employees those who complain openly, seem to have experienced events similar to those related by the ex-supervisors or they have spent considerable time talking to those who have because their stories are alike. In addition, they say that most of the new piece rates carry with them an expected hourly output that is out of line with any older rate they know of. On the whole, they find that it is no longer sufficient to turn out what employees used to consider a day's work. In some cases they must do twice as much, and even when they do many of them feel that their earnings are being reduced gradually.

Many of these employees note that their hourly rates are at the maximum of the grade and that they are working on the highest graded work in the department. They also have from 10 to 15 years to work before they are eligible for a pension, and they have children who must be given an education that is "better than I had." They ask, "What can I do about it? Who can I see who will give me a chance at something better?" A few have already asked for transfers to machine departments.

One is taking a tool making course in evening school. Others would like to do something but they are afraid that they may be too old to learn new work, so rather than risk failure they do nothing. Their criticisms are directed at the bogey, the labor grade, and the rate range. They think that there should be "some allowance for service" and that the "old timer should not be expected to do as much as the younger employee." But their real complaints can all be grouped as a protest against what appears to them to be a stagnant situation; that is, one which offers no opportunity for progress.

Recently the counselors have noticed an increasing amount of satisfaction on the part of high grade employees who are not on repetitive work. Most of these people have been numbered amoung the dissatisfied because their thinking is still dominated by pessimistic preoccupations. However, they now appear to be getting more satisfaction from their work, and are thinking less about "past grievances." In examining the situation in which these people are working for an explanation of their changing attitude, three factors stand out as significant. First, the activity of the group has increased sufficiently so that they are now very busy and have plenty of work ahead. They no longer have much time to think of themselves. Secondly, a number of new employees have been hired and they are "working with" the older employees. This gives the older employees a feeling of position in the group. Finally, the supervisors in these groups are now so busy that they are giving more and more responsibility to the older employees. In some cases the older employees assign the work to the new employees and handle job difficulties for them. They are, in effect, unofficial supervisors. The new employees look up to them and respect them and the longer service people seem to get a great deal of personal satisfaction from being recognized in this way.

Summary

By way of summary, the main points brought out in this analysis of the attitudes of a limited sample of short and long service employees together with some of the significance which should be attached to them may be listed as follows:

- 1. The new employees are for the time being fairly well satisfied. They are glad to be working for the Company and feel that the Company compares favorably with any other they have worked for. Their chief preoccupation is with advancement. This preoccupation seems to be so strong chiefly because they are a very capable group of people and have reached the age where they are ready to assume family responsibilities.
- 2. The fact that the Company has this large group of ambitious young people carries with it a number of implications.
 - 2.1 For the supervisors and personnel people it implies greater attention and effort to problems of placement, training, and vocational adjustment.
 - 2.2 For the supervisors and management it implies more attention to the formulation and administration of policies and practices. It would seem that the more intelligent the personnel, the more intelligent must be their handling. They have initiative of their own as evidenced by their voluntarily circulating petitions to get what they want. Above all they are curious and are likely to demand a clear understanding of Company policies and payment systems.
 - 2.3 For management it raises the question as to how far it can or should go in hiring help of this calibre for the kind of work to which they are assigned. It raises the question of what kind of balance should be maintained in the total personnel and what kind of equilibrium is most desirable from the standpoint of productiveness and stability.
- 3. The long service employees, while their morale seems to be improving, are still very pessimistic.
- 4. In considering the events which have bred these unfavorable attitudes and what might be done to improve them there are, again, a number of implications.

- 4.1 First of all there is implied a problem of rehabilitation. By this is meant something more than what is being done at present to restore morale by rate revisions and promotions. The big problem is that of restoring this group's confidence in themselves and in management. Their confidence in the rules of the game has broken down and must be restored. This requires the cooperation of the supervisors, the personnel counselors, and management. Perhaps if more weight were given to the employees' feelings, interests and sentiments in forming and administering policies, and if this were coupled with what might be termed a more fact-facing and long time point of view on the part of management, much desirable progress could be made along these lines.
- 4.2 Perhaps less stress on observing the formal, logical principles of organization would help to create for our old timers a satisfactory position in work groups. By this is meant the practice of treating these people as unofficial supervisors or making unofficial instructors of them.
- 4.3 Continuing the practice of giving this group first consideration in selecting supervisors and candidates for the more desirable jobs.
- 5. In view of the external labor situation, more attention should be given to the problems of personnel now than ever before. Judging from the interviews taken and other informal contacts with employees, there is nothing in this area to be disturbed about at present. The long service group, while somewhat disgruntled, are well integrated members of the Company's social organization. They still have confidence in the Company which means that they feel quite free to voice their preoccupations and troubles. The fact that they do so, in turn, means that management is more likely to know at any one time what frame of mind these people are in. The new employees, however, are not yet integrated members of the Company organization. They have not been here long enough to have built up the same relationships with their supervisors that the older people have. This means that they are much more reluctant to approach their supervisors about matters which affect them personally. For this reason the supervisors should, perhaps, make a constant effort to keep in friendly touch with them. It also means that although they display none of the pessimism of the older employees. they may constitute a much more fertile ground for the development of labor troubles.

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I am attacking for your information a third report which has been issued in connection with the experiment of personnel counselling. This report deals with the ettitudes of our short and long service employees and outlines some of the problems that need to be considered in dealing with these groups.

E. A. MART - EST

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New York

I am attaching two copies of a third report which has been issued in connection with the experiment of personnel counselling. I feel this report will be of interest to you as it deals with the ettitudes of our short and long service employees and outlines some of the problems that need to be considered in dealing with them.

CRICHIAL SIGNED, BY G. S. FUTHERFORD

Superintendent of Industrial Helations

*JD-831-4---

ASS.

Mr. Keersy Point Breeze

SEP 3 0 1025

MR. T. E. STEVENON, Comptroller of Manufesture New York

I us attaching, for your information, five copies of a report on the attitudes of our short and leng services amployees. This report is based upon data obtained in the experiment in personnel commeling and outlines some of the problems to be considered in decling with these two groups of amployees. I thought you would be interested in following the work being done in connection with this experiment and also might want to show the report to some of the interested people at Breedway.

C. L. RICE

Vice President

Att.

WJD-851-4-78P

September 30, 1936

I am attaching, for your information, a copy of a report on the attitudes of our short and long service employees. The report is based upon interview data obtained in connection with the personnel counseling experiment and outlines some of the problems which need to be considered in formulating plans for dealing with these two groups. I might add that the experiment referred to was outlined and our earlier progress with it was discussed in two previous reports which were sent to you on June 3, 1936.

RUTHE 800

WID-831-4-LT

Att.

Kemorandum to:

All Superintendents at Howthorne All Works Division Chiefs

Copy to Messra:

C. L. Rice - 0001

G. A. Landry - 1000

G. A. Pennock - 2000

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UNIVERSITY OF WISCONSIN - MILWAUKEE

September 20, 1936

I am attaching, for your information, a copy of a report on the attitudes of our short and long service employees. The report is based upon interview data obtained in connection with the personnel counseling experiment and outlines some of the problems which need to be considered in formulating plans for dealing with these two groups. I might add that the experiment referred to was outlined and our earlier progress with it was discussed in two previous reports which were sent to you on June 3, 1936.

CONTRACTOR OF A

77D-831-4-LT

G. C. RUTTICHTOND - 600

Att.

Memorandum to:
All Superintendents at Hawthorns
All Works Division Chiefs

Gopy to Messrs:

G. L. Rice - 0001

G. A. Innery - 1000

G. A. Pennock - 2000

J. M. Stahr - 2000

R. A. Price - 7500

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entowal diener by G. S. RUTHEAR BY

WJD-831-4-LT

G. S. HUTHERFORD - 800

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Emerandum to:

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. C. L. Rice - 0001

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UNIVERSITY OF WISCONSIN - MILWAUKEE

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Salda J. s.

Some time ago the question came up as to whether rest pariods should be extended more widely in the shop and if so to what departments. In view of the experience some of the people in the Industrial Relations Branch had had with this problem the entire question was referred to the Industrial Research Department for disposal.

In considering this matter, two courses of action were indicated: someone from this Branch could be assigned the duty of making the necessary job surveys, or a memorandum covering the subject could be written as a guide for the various Results Divisions in the expectation that they would take the necessary action for their respective branches.

In many ways the first course seemed the more desirable one. Among other things it would incure centralized responsibility and uniformity of administration. The difficulty, however, was that we had no one to whom this work could be delegated without sacrificing other activities upon which the qualified people have been working. We have postponed acting upon the problem in the hope that we could see fit to free someone from other work. To far this has not been possible so rather than postpone the matter longer we have chosen the second course.

The attached report, therefore, has been prepared for the information of the Results Divisions in the expectation that they will take over the job of outlining and executing a definite rest period program for their branches. This report summarizes our views with respect to the function, installation and administration of rest periods. If this plan meets with your approval we shall get in touch with the Results Divisions and cooperate with them in working out a suitable course of action.

ORIGINAL SIGNED BY

Jo-281-4-1

4. A. REALESTON - FOO

Pemorandum to Pesors:

- 9. 4. lendry 1000
- G. 4. Pennock 2000
- J. N. tahr 3030

Dony to:

r. J. L. Mice - 0001

MEST PEHIODS FOR SHOP DEPARAMENTS

At various times in the past few years requests for the installation of rest periods or for information about them have come up in joint committee meetings and in supervisory conferences. In some of these cases rest periods have been instituted while in others, due to uncertainty as to the kinds of work for which rest periods are suited or uncertainty as to the present status of the Company's experimental work along these lines, these requests have been met by promises of further study or investigation. Because of this situation and in view of the Industrial Research Department's previous experiences in the development and installation of rest periods, this subject has been referred to this department for disposal.

Two ways of handling this problem suggest themselves.

The first is that someone in this organization who is familiar with the subject be given the responsibility of surveying the various departments in the Plant, determining which ones should have rest periods and then seeing that they are instituted and administered properly. This method, although it would tend to assure uniformity of practice, would necessarily be time consuming and laborious. The second method suggested is that a fairly comprehensive report on the subject be prepared for the use of the line organizations. This plan anticipates that the operating organizations will themselves take the initiative in instituting and administering rest periods. In view of the present situation this

course seems the more advisable of the two and the following disest of the subject has been prepared for use in that connection.

The Functions of Rest Periods

In order to administer rest periods effectively it is important to understand the functions which they are supposed to fulfill. The following points, while not exhaustive, indicate the major values in authorized rests as determined by detailed investigations here at Hawthorne and by innumerable other studies conducted both in this country and abroad.

1. Rest periods serve to diminish and in some cases to eliminate feelings of boredom or monotony frequently experienced on simple, highly repetitive jobs.

Thile it is true that no job can be said to be monotonous, inamuch as monotony is primarily a state of mind and is experienced in varying degrees by operators doing the same kind of work, nevertheless it is experienced by a sufficiently large number of employees to constitute an important problem and one worthy of serious attention. Conotony in work usually means that there is a marked discrepancy between the emount of attention a person is capable of giving to his work and the amount his work demands. Under such conditions the employee is free, during the greater part of his working day, to indulys in daydresming or dispersed thinking. Exacting studies by skilled investigators show that these day dreams tend to become passimistic. The individual tends to dwell upon his personal problems or work grievances with the result that they grow out of all proportion to their real importance and result in lowered morale and efficiency. By the introduction of rest periods such chains of reflection are broken, the individual is brought back to reality and, if he mingles with his oo-workers, his attention is directed toward them and away from himself. This is one of the chief reasons why discipline should be relaxed and why the individual should be encouraged to talk or participate in group activities during the rest period.

2. Rest periods serve to diminish feelings of fatigue resulting from the performance of heavy muscular work or work which requires a fairly fixed muscular set.

Terhaps no auman problem has received more attention from investigators in industry than that of fatigue. In general, those investigations have shown that fatigue in any simple sense does not exist. The term has been used to cover a variety of organic and mental conditions which differ markedly as to origin. Satever the cause of fatigue, however, the fact remains that many workers do get tired and such feelings of tiredness are diminished by rest periods. Puring the root period the operator has a chance to recuperate and returns to his work with reneved vigor. He is usually able to make up for the time taken out for the rost period without consciously extending himself.

5. Hest periods give employees working under unusual conditions an opportunity to recuperate.

Amployens subject to conditions involving excessive heat, noise, funes, eyestrain, etc., find that rest periods have a recuperative and stimulating effect on output and efficiency.

4. Rest periods tend to organize the time which many employees "steal" from their work in uhauthorized rests and thus serve to solve one of the supervisor's disciplinary problems.

There rests are not suthorized many employees who feel the need of a rest manage to sneak a few minutes from the job. This is frequently done under the guise of getting a drink or going to the toilet. One investigator found that the time thus taken was equal to and in some cases exceeded the amount of time which would have been required by rost periods. Then rest periods were introduced most of these undirected and intermittent interruptions in work routines were voluntarily stopped. The semployees were pleased because they no longer had to take their rests under the guise of doing scrething clae and the supervisors were no longer bothered by the problem of employees going to the washrooms.

5. Rest periods tend to create a better attitude toward the job, to foster friendship among the employed body and to strengthen the employee-employer relationship. The studies conducted on rest periods here at have thorns showed that one of the chief functions of rest periods was to integrate the employees in the Company organization. Suring the rest period the employees have much more opportunity to meet one another and to become members of a social group. In addition, they interpreted rest periods as an expression of management's interest in them as human beings. The resulting good will reflected an improvement in the employees' attitude toward the Company.

Employee Attitude toward Rest Periods

Experiments with various types of rest poriods in the Relay Assembly Test Room proved that they were desirable, from the standpoint of both management and the employees. Because so many variables influenced fluctuations in output it was difficult to measure accurately the effect of rest periods on individual or group performance. Sowever, it was definitely concluded that output did not suffer as a result of these scheduled intorruptions in work routines; if responsible for any change, output was stimulated even though approximately four and one-half ser cent of the work time was taken out.

The test room operators' comments indicated that they were enabled to mark with less effort following the rest periods. They further stated that they felt no need for pressing or speeding up to compensate for time out. They enjoyed the freedom and the opportunity to relax and leave their beach positions for a few moments. During the morning period they ordinarily spent part of the free time esting light lunches.

when rest periods were introduced in various chop departments a similar reaction was observed. At first some of the employees resisted rest periods because they feared that their earnings would suffer. As they became accustomed to the plan and found that they were able to keep up their average deally output without increased expenditure of effort their objections noon disappeared. An analysis of interviews taken in departments having rest periods shows that the plan was favorably received by a large majority of the employees. Their reaction was much the same as that expressed by the test room operators. They seemed to feel that management had introduced rest periods out of consideration for their welfare. The time was spent in playing cords, conversing with fellow workers, esting light lunches, etc.

Unfavorable criticism was largely directed toward administration of the plun rather than the plan itself. Implayees stated that in some departments supervisors interpreted the functions of rest periods as a method of organizing personal time. They were discouraged from leaving their positions at any other time. In other locations, rest periods were not compulsory and consequently some employees continued to work, thus disturbing those who were using the periods for recreation.

Installation of West Periods

The first problem in installing rost periods is that of determining which jobs should have them. This problem is made difficult because the criteria for making such decisions are not clear. In view of the many functions which rest periods may perform it is clear that type of work alone is not an adequate guide because they may be beneficial even though there is no evidence of fatigue or pronounced boredom.

In general it may be said that rest periods should be seriously considered on all types of work except that which provides a good deal of freedom of movement or variety. It is quite likely, for example, that rest periods are not needed by truckers who get around the plant a good deal and have occasion to stop while waiting for elevators. In surveying jobs perhaps first attention should be given to groups who have already expressed a need or desire for rest periods. Sollowing this it might be well to examine beach work and those situations in which unusual conditions such we heat, Tumes or eyestrain exist.

employed on automatic machines is the degree to which attention must be fixed on the machines. If introduced at proper intervals rest periods would enable these employees to concentrate better on their work. However, the time involved in starting and stopping machines offers a problem which needs to be considered. In the past, a partial solution was to have employees stagger their rest periods, each taking charge of two machines. If not too expensive, of course, it would be better to stop the machines. This would provide relief from noise and allow everyone to rest without having to make up for it later. It has also been pointed out that some machines function more effectively if the oil has a chance to cool.

On conveyor jobs it can be anticipated that rest periods will tend to organize time taken for personal needs. This is contrary to one of the fundamental objectives of the plan, insamuch as employees should be free to leave their work when necessary. It is true, however, that employees on conveyor jobs cannot be spared at irregular intervals throughout the day unless an adequate number of utility operators are available.

Another question requiring careful analysis is whether rest periods should be installed by departments or building locations. The latter seems more advisable in order to eliminate as much activity as possible during the periods set aside for rest. This policy was followed in the past and it also served to eliminate charges of discrimination between groups employed in the same building location. At present, inspection and shop clerical hilp are included with the operating departments. If the entire location were to be considered all maintenance men, truckers and production tracers should be included, even though their duties may permit freedom of movement and mimerous breaks in daily restrines.

In installing rest periods the following physical problems must be investigated:

1. Washroom facilities

To avoid congestion, washrooms should be investigated to determine their capacity. Where washrooms are assigned to more than one department it is advisable to stagger the rest period schedule. In many departments female employees spend most of the slotted time in the washrooms. Care should be taken to route employees to washrooms adjacent to their own departments in order not to disturb other groups.

The General Service Division should be notified when new groups are placed on rest periods so that the washrooms may be kept in order.

2. Yover mervice

In order to allow for power fluctuation the Power Service Department should be notified when new groups are assigned rest periods.

3. Hest period signals

In the past, each department or location selected a monitor from the group to blow a whistle as a

signal for the starting and stopping of rest periods. A warning whistle was also blown to make certain that all employees were at their positions when the periods ended. This arrangement has apparently been satisfactory.

4. Smoking

On several occasions in the past the question of whether or not employees should be permitted to make during rest periods has arisen. An arrangement might be made for employees to use adjacent bridges for this purpose if it would not cause too much confusion.

Scheduling of Rest Periods

Experiments conducted in the test rooms and in a few departments led to the conclusion that rest periods should be scheduled close to the middle of the morning and afternoon work periods. Most of the rest periods were scheduled between 9:15 a.m. and 10:00 a.m., and 2:15 p.m. and 5:00 p.m. How that shop hours have been changed these times should be advanced.

The length of the rest periods was determined on the basis of test room investigation. A fifteen minute period in the morning and ten minute period in the afternoon was decided upon as the most beneficial arrangement. Obviously, shorter periods could not fulfill the chief functions of rest periods and longer stops might affect the average daily output. The longer period was scheduled for morning because it gave employees who had eaten insufficient breakfast an opportunity to eat at that time. Later, some departments reversed the order to satisfy the demands of the employees. In isolated cases where conditions were unusual, shorter and more frequent periods were installed.

Administration of Rest Feriods

The success of rest periods depends largely upon the administration of them, a point which cannot be too strongly emphasized. Cooperation between supervisors and employees is essential and this can be reached only through a clear understanding of the function of rest periods. To acquaint everyone involved with the development, objectives and a definite plan for introducing them, conferences with the supervisors, at least, offers the most expedient plan for avoiding misinterpretation of the program. Frinted instructions might also be helpful.

The following points deserve special emphasis:

- 1. Hest periods are not a substitute for personal time. No employee should be compelled to remain at his bench until the rest period.
- 2. Employees should be allowed complete freedom to engage in any activity permitted in each department during the moon hour.
- 3. Rest periods must be compulsory when installed in a department in order to keep all workers on the same footing.
- 4. Supervisors should be warned not to urge employees to speed up output in order to make up for rest period time.
- 5. Griticism of the plan by employees should be carefully noted and never discouraged. Complaints may be justified in certain areas.

Recommendation

In view of the foregoing information, which is in itself a definite recommendation for expansion of the rest period program to those employed on the types of work described under "Installation of Rest Feriods", it is suggested that full authority for installation and administration of rest periods be delegated to the Results Divisions.

The facilities of the Industrial Research Department will continue to be available when advice is needed on groups requiring special consideration.

7JD-DDD-831-4-AP

September 25, 1956

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Cetcher 17, 1986

EF. C. CARPATORE, Comerci Personnel Department

New York

Referring to your letter of Cetober 5 and telegram of the 15th, I do not think there is much, if enything, to pass along to Mr. Viteles concerning recent developments in the selection of office workers.

All applicants for office positions at Hauthorns are, as you know, interviewed both by our employment people and by the line supervisors for whose jobs they are being considered.

So-exlict intelligence or mental electrons tests are cleo used in the selection of the najority of our office workers. In past years various tests, notably the Alpha, have been tried out and at present we are using the Otis tests for all of our clerical workers and for equipment engineers and draftsman. For Payroll and cost clerks we have also employed a simple crithmetic test.

Some preliminary experimental work has been done with special tests for dreftsmen and for development engineers but there are no findings which we are ready as yet to report for these groups.

Proficiency tests are used in the selection of comptometer operators, typists, and stonographers. For all of these our relactive standards are based upon studies of the relation between test performance and success on the job.

That scores which are expressed in terms of the probability that an individual will be an average or above average employee are not used in an erbitrary way. They are simply one of the several factors such as education, experience, at catera, which are taken into essent in making our selection.

There have been no recent changes in the application blank, nor in employment interviewing procedures, and saids from a few revisions in the detailed standards for comptension operators, typists, and stanographers, there have been no changes in testing procedures which could be referred to as significant developments.

EP. O. CARPONIER. SI

Cetober 17. 1936

Perhaps the only recent development which might be cited as having a bearing on selection of office workers would be the preliminary stops which have been taken by the Labor Grading people in the direction of setting up labor grades for a number of the lower rated office occupations as, for example, messengers, office bays, neil and file clerks, duplicating machine operators, at setere. For details of this program it would perhaps be best to refer to Er. F. J. Papper at Broadway who, we understand, has been taking this study under Er. Hobertson's supervision.

In his book, Industrial Psychology, published by W. W. Norton & Company, Inc., in 1952, Er. Viteles in his chapter dealing with fatigue in industry referred to some of the findings on this question which came out of our test room experiments. He were not impressed with his attitude and interpretation of our work. See, for instance, his comments on Page 476. It may be that there are nome redent developments applying to office selection, such as the labor grading study, thich you will want to pass on to Mr. Viteles but so far as Hawthorne's experience is emported we would not be porticularly been about having Mr. Viteles interpret or present our work.

CRIGINAL SIGNED BY G. S. RUTHERFORD

Superintendent of Industrial Esletions

AUD-K

Cotober 20, 1936

UR. C. C. BURER, 195 Broadeny, New York

Mererring to your telephone sonversation someorning employee attitudes toward newcomers including college graduates. We have hired ife cellege graduates in all departments at Easthorns alone we began to increase our force. Of these only 18 were placed in shop departments or in office locations where employees with this amount of formal education are not usually hired. In such thep departments and office locations the presence of callege graduates is likely to be interpreted as a threat to present suplayees although formal education such as college graduate, high school graduate, masters' degree, et estera is saldom stated as prime requisite for employment. .. e do not sain how people get their education and ability to perform a job as long as they have it. This kind of question such to the surface as an informal dismussion in the Mawtherne Jorks Joint Counities meetings of December 19, 20, and 25, 1935. A membrandum record was made for members of the secunities only. A copy was sent to Mr. Heaford by Mr. Pennsek on Pelmumy 18, 1984. If you will refer to this letter you will find the question covered in Item No. 1. The bring discussion so recorded and evidently migricule, equilibrium. propositions. The size of this problem if any is abytously

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October 28, 1986

MR. C. C. PARER, 196 Broadway, New York

(PAOR 2)

constraint welcomed mither because their presence tends to rules carnings as they work into the group or because their presence tends to improve the standing and practice of the clair employees in the group. The fact these our placement organization recognizes the situation above entitled below assure that fature developments will be favorable.

G. G. HUMLAFORD

G. J. AUMARAN

CAL--000-AD

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TIGT 30 1936

18. W. L. ROBERTSON, Assistant Ingineer of Monufacture

How York

Several of us have read the attached proposal that a training program in motion economy be adopted at the three major porks, and I am returning it to you with my approval.

We feel that such a program would be helpful, particularly to those people who are engaged in setting piece rates and in training new employees. However, some questions have been raised as to what benefits may be expected from it from the standpoint of improving the efficiency of those employees who have acquired manual proficiency on their jobs. As you know, research work in the general field of employee motivation has been carried on here at Hawthorne for some time. As a result of that work, a few ideas have been formed regarding employee effectiveness which I feel may be of interest to you and to those who will be engaged in carrying out the suggested motion essence program. I am therefore listing a few of them for your consideration.

First of all, this work has supplied little evidence to support the belief that there is one best way of doing a job for all employees. Presumebly some such assumption underlies much of the work in the field of motion economy. So far as the people connected with this research have been able to determine, the work habits required of an employee should be sufficiently flexible to allow for individual variations in such things as rhythm and manipulative activities posuliar to his skeletal and muscular structure.

secondly, a good deal of evidence has been adduced which suggests that the ceiling of upper limits to employee officiencies prevailing in the shops are not determined by physiological factors. In other words, this evidence suggests that employee efficiency can be appreciably increased even though nothing is done in the way of helping him to alter his work pattern. The important problem,

brought out by these studies, is that of motivation. The problem is that of getting at those social and psychological fectors which inhibit the employee from working any faster than he does. It is felt that unless this can be done, training in motion economy or the further elaboration of principles of ecientific management may not secondlish a great deal in the way of improved performance. An employee can be shown how to do his job faster but that does not mean that he will do it faster.

of motion economy which the supervisors learn from these courses may come down to the employee in the form of pressure. By this is meant that a supervisor attending one of these courses may get the idea that it is his job to see that all employees alter their work habits to correspond with some specified pattern. If he attempts to alter the work habits of employees who feel that they could do more work with their present techniques, the employees may interpret his actions as a form of occreion. Many of the employees who have been studied have implied that they could increase their output considerably if they really felt free to work. In view of this fact they may regard whetever the supervisor has to say about motion economy as being comewhat superficial and beside the point.

I thought I should cell these ideas to your attention so that you can see how some of the people here at Hawthorne are thinking about problems of employee effectiveness. This is not intended as a criticism of the training program suggested. We feel sure it would be of value to many people here at Hawthorne. The above points are offered as suggestive of the limitations to what might be expected from a program of this nature.

Vice President

Att.