PERSONNEL ORGANIZATION
IN INDUSTRIAL ARTS CLASSES

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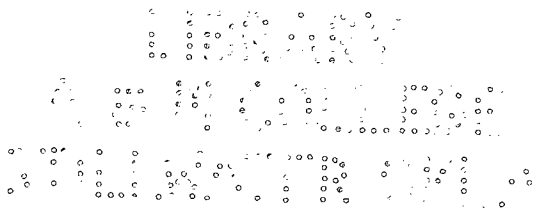

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CHAPTER I

THE PROBLEM; DEFINITION OF TERMS; EXTENT OF THE STUDY

With industrial arts classes becoming larger, the instructor is faced with a number of problems in school shop management and control. Methods of instruction which were used in smaller shops are no longer practical, nor are they educationally sound. According to Struck, (19, page 1), the new guiding goals and basic concepts are moving toward a socially conceived philosophy.

Industry has had the same problem and they have solved it to some extent through systems of personnel administrations. Personnel directors have organized the workers into groups that work cooperatively together. All problems are taken care of which are not directly related to the participation on the job. Industrial arts instructors have borrowed this program and are initiating similar programs, called "personnel organizations", of which little is generally known.

Much has been written regarding personnel relations in industrial organizations. Many industrial men feel that personnel work is a necessity, and is needed in order that they might continue on in business. Industry has used personnel organizations for a number of years, therefore much information is available regarding it.

Little has been written regarding personnel relations

in industrial arts classes, however the programs used are modified from procedures that industry has already tried and found to be satisfactory. A considerable length of time generally elapses from the time industrial procedure is written, until industrial arts men modify programs, try them out, and write of them in professional magazines.

DESCRIPTION OF THE PROBLEM

In order to understand the scope of this study, the origin and the reasons for the problem will be stated.

The Origin of the Problem. During the school year 1934-35, while attending college, the writer took several inspection trips including one to Tulsa. While visiting schools there the group observed personnel organizations in operation in most of the industrial arts classes. From that time on the writer has had an interest in such organizations.

Since that time the writer has realized the need for a definite class organization and has employed a similar type of organization as those observed in Tulsa schools.

During the summer term of 1939, while attending summer school at Oklahoma Agricultural and Mechanical College, the writer made a study on Personnel Organizations in Industrial Arts Classes. It was then that the writer realized the real need for an extended study under the same title. The writer at that time was enrolled in courses with Dr. Dewitt T. Hunt,

and at his suggestion and because of the previously encountered need, it was decided that the subject mentioned before would be of much value for a thesis.

The Problem Stated. This problem was considered at length, and in the process new problems developed. How could one gain a thorough knowledge of personnel organization? For the reason that personnel organizations originated in industry, there would be one source. Some known industrial arts classes in Oklahoma had personnel organizations, they would offer another source. Writings on personnel work in industry and industrial arts would offer more information. With these sources in mind the aims of the thesis became:

To review the development of personnel administration in industry.

To review the development of personnel organizations in industrial arts classes.

To study and compare personnel organizations of various shops in Oklahoma and to indicate the purposes for which each are used.

To recommend a personnel organization for industrial arts classes.

The Need for the Study. After the depression years following 1929 there has been a definite increase in the number of students in each industrial arts class. This situation is

having to be met by some type of personnel organization. From observation, it would seem that all kinds and types of organizations have been established and are being established with little knowledge of what the purposes of personnel organizations are. A discussion of personnel organizations in industry and in industrial arts, along with a survey would surely be appropriate at this time.

This study will be of use to industrial arts instructors in designing similar personnel organizations, or in the study of the development of personnel organizations. This study may be used to help instructors having personnel organizations evaluate the merits of their own programs.

DELIMITATIONS OF THE STUDY

Due to the fact that the subject is so broad, the extent of the study will be given.

The Extent of the Development of Personnel Organizations in Industry. In order that a background of personnel organizations will be clear the writer proposes to give a review of the development of the problems of labor and of theories that were developed to solve them. This will probably extend from the present time back to about the time of the industrial revolution.

Also, included in the study of industry will be the functions and types of organizations, which should play an important part in the development of personnel organizations in

industrial arts.

Several methods could be used in getting this information from industry. The visitation method was discarded for the reason that many of the larger industries were not represented in Oklahoma and that no fair representation of information could be secured. In order to get the history of the development, the library research method would be used. The library research method was found to be adequate in securing all the information on personnel administration in industry, as many source books were found.

The Extent of the Development of Personnel Organizations in Industrial Arts. To give the proper background for the study it was decided that status, class size, and a definition would be necessary. References are made to books by recognized writers in the field of industrial arts, to the State Advisory Committee for Industrial Arts in Oklahoma Schools and to the thesis studies of Eugene B. Pope, 1938, and T. Singleterry, 1934.

The need for a personnel organization must next be established. This was done making a search through books and periodicals to determine the needs as they had been formulated in other similar programs. This same procedure became very helpful in the development of personnel of personnel organizations in industrial arts classes. Due to the fact that nothing could be found telling of the development of personnel work in industrial arts classes the author found it necessary to write of the

development that the trends seemed to indicate.

Many personnel organizations plans were studied in an effort to understand their functions, as few statements were found regarding the functions of the program.

As the writer wanted to make recommendations for a personnel organization that could be used in Oklahoma it was decided to find out what was being done in many of the large schools. Several methods were evident. Either the investigator should visit the schools to get the desired information or he would send an inquiry letter asking for the information.

Due to the fact that the author had already visited in over thirty-five of the larger schools in Oklahoma, the inquiry letter was used. Eighty inquiry letters were sent out to the instructors of industrial arts classes. Thirty-eight instructors were kind enough to return the inquiry forms with most of the information filled out correctly. Of the thirty-eight informants reporting, the writer had visited in twenty-one of their shops. It was decided that this number would be a fair number on which to base the study, as many schools were known not to use personnel organizations. Comparison of the various organizations by objective means and a summary was made of the findings.

By way of conclusions the writer had intended to suggest a personnel organization only. To do this, information should have been available on functions of a personnel organization

in industrial arts. The desired information was never found. The writer then accumulated information on the functions of a similar organization in industry, and determined the common practices of industrial personnel organizations, and by a comparison of personnel organizations in Oklahoma suggested a personnel program for industrial arts modified from industrial programs.

DEFINITION OF TERMS

In order to make this study clear to the reader, it is necessary to define certain terms used frequently. The follow- definitions are partly based on accepted opinions and partly on subjective reasoning.

What is Personnel? The word personnel is generally used in reference to a group of individuals. Webster defines personnel as, "the body of persons employed in some public service, as the army, the navy, or in a factory or office".

Used as an adjective the word would mean to have charge of the personnel with regards to employment and relations between the employer and the employee.

What is Administration? Administration as it is used in this study means the management of an institution, an organization, or a group, with reference to dispensing with or conferring upon, according to a prescribed program.

To carry out an administration, a person is called an administrator. According to Webster, the job of an administrator is to, "direct, manage, execute, or dispense".

What is an Organization? As Webster states it, an organization is, "the executive structure of a business; the personnel of management, with its several duties and places in administration; the various persons who conduct a business, considered as a unit.

What is a Personnel Administration? In order to give a correct definition a formal statement by Tead and Metcalf (20, page 2) will be given. It is as follows:

> Personnel administration is the direction and coordination of the human relations of any organization with a view to getting the maximum necessary production with a minimum of effort and friction, and with proper regard for the genuine well-being of the workers.

What is a Personnel Organization? The term personnel organization, will be referred to as the structure of industry, or of the industrial arts class, that carries out the duties and ideas of a personnel program (personnel administration). The men, or pupils of this organization will be thought of as a unit.

What is Dispensation? In the study, reference is made to the duties of a personnel organization and means of appointment, election, dealing out, and rotating these duties. The

word dispensation seemed to be the one to use, regardless of the generally used definition, which means to do away with. Webster defines dispensation as, "the act of dispensing, or dealing out; distributing. Administration; management . . . plan or system of administration".

RESEARCH TECHNIQUES USED

The data for this thesis were collected through two methods, the personal investigation, and the questionnaire methods. An explanation of the use of these will be given.

Personal Investigation Method. A first-hand examination of both primary and secondary sources pertinent to study was made. Much primary information was found on the study of industry, while most of the information of industrial arts programs, were of secondary nature.

Source books were found that related to the study, notes were taken and compared, then the developments were written up. Examples of many types or kinds of programs were found and summarized.

Questionnaire Method. The questionnaire method, when compared to the personal-investigation method, as a method for collecting data is not a reliable and accepted procedure. There are times when such a method is used. Reader, Ward G. defends the questionnaire in the following statement: (15,page 63)

> Although the questionnaire method of securing information and of conducting research has probably been overworked during recent years, the fact remains that there are some types of problems--problems which are worth attacking--that cannot be attacked except by the means of a questionnaire.

The questionnaire (referred to in the study as the "inquiry") was mailed to eighty teachers of industrial arts. Thirty-eight informants returned the inquiry form.

No return letter was written. In twenty-one cases, the writer had visited the shop, however it was not necessarily for the purpose of observing personnel organizations, as no data pertaining directly to personnel programs was recorded. In other cases the writer has had interviews with the instructors but the questionnaire was more accurate.

REVIEW OF PREVIOUS STUDIES

Previous studies can be an invaluable aid in the solving of a problem. The writer offers acknowledgement to them.

Previous Studies in the State. Written material on personnel programs were few, however frequent reference will be made to the bulletin produced by a group of college graduate students at the Oklahoma Agricultural and Mechanical College (Summer term, 1934), under the direction of Professor O. B. Badger, entitled Personnel Organizations for Industrial Arts Classes. This book, along with many suggestions for discussion, contained three personnel organization plans.

Members of the class were: J. C. Howard, Dorse B. Jeffrey, Frank B. Miller, Claude Neet, Voyle C. Scurlock, Elton T. Wagoner, and J. C. Sala.

Other Previous Studies. The only other study definitely related to Personnel Organizations was a symposium entitled, Organizing Pupil Personnel in the Laboratory of Industries, edited by a group of students at Ohio State University, in 1930, under the direction of Dr. William E. Warner. This is very complete in every detail. Frequent reference is made to this study.

Other information includes material from method books on personnel administration and management, articles in professional magazines, copies of organization plans and methods used that were collected in visits, and from commercial materials.

PREDICTED OUTCOMES

The findings resulting from this study should provide information on the following topics. First: There should be enough information to give the reader an understanding of the development of personnel programs, both in industry and in industrial arts. Second: There should be sufficient examples of each to clarify the reader on kinds and types of personnel organizations in industry and in industrial arts. Third: organizations, types, duties, purposes, and methods used in oper-

ating personnel organizations in the state should be of benefit to one installing a similar type of program in an industrial arts class.

In proceeding with the study the writer has included enough information and analyses to merit consideration. The fact is, the source and quantity of material is extended enough to be helpful. This might not be true if more material on programs of personnel work in industrial arts were available. Under existing conditions it is true. The recommendations found in Chapter V should be of assistance in installing a personnel organization in an industrial arts department. If this is true, the help derived from the findings in this investigation should overbalance the time and effort expended in its compilation.

This chapter has included a general statement of the problem; the second and third chapters will deal with the historical development of personnel organizations.

CHAPTER II

THE DEVELOPMENT OF PERSONNEL ADMINISTRATION IN INDUSTRY

If one can become acquainted with the movements and industrial developments that have made personnel administration in manufactoring plants necessary, then it becomes easier to understand the purposes of personnel organizations in school shops. Much has been written of the development of personnel work in industry, however a summary of movements closely related to the problem at hand will be given.

LABOR CONDITIONS AND PROBLEMS RESULTING IN PERSONNEL MANAGEMENT

Labor problems seem to have their beginning with the industrial revolution. A review of conditions before the revolution to the present time would help the reader understand conditions that were responsible for personnel administration within the factories.

Labor During the Middle Ages. The laboring man of the "middle ages" did not live a happy life, but rather a dull life. He worked only for a mere living. Equal rights had not entered his life. A man was generally an employee of his father or of a relative. A trade was carried on within a family for generations. Few social and economic problems were present.

This simple life did not last for long, in the annals of time, for it was changed by the industrial revolution, which marked the beginning of the actual need for personnel work in industry.

The Industrial Revolution and Its Problems. The industrial revolution had its beginning in the latter part of the eighteenth and the early part of the nineteenth centuries, when industry in England underwent a great transformation. Industry had been carried on through the "domestic system", under which the manufacturer or merchant put out his materials to be worked up in the worker's homes at piece wages. This system gave way to the "factory system" as a result of the application of the great mechanical inventions. In 1770 Hargreaves patented the spinning jenny; the water frame was invented by Arkwright in 1771; Crompton's mule was introduced in 1779. In 1769 Watt obtained his first patent for an improvement in the steam engine, and in 1785 it was successfully applied to the manufacture of cotton goods. These inventions along with others that followed were responsible for the changes in methods of manufacturing which spread over the entire world during the next century.

This period was marked by a great deal of hardship to the working classes. Machinery had deprived the hand workers of a livelihood and had caused the crowding together of people into small areas due to the lure of finding industrial employ-

ment, and had resulted in untold evils, both moral and physical. These problems and efforts which were made for their improvement will be discussed in the following paragraphs.

Theories of Labor Relation. As labor problems appeared, employers developed several theories regarding the handling of them. Four theories held prior to the personnel movement are listed by Scott, Clothier, and Mathewson, (16, pages 3-14) as follows: (1) the commodity conception, (2) the machinery conception, (3) the goodwill conception, and (4) the natural resource conception.

In America, labor has been thought of and dealt with in a variety of ways since the time of the industrial revolution. First, the laborer was given little concern, for the belief of "supply and demand" or the "Commodity Conception", was held. The main interest of the employer was in the manufacture of the product. It was thought that supply and demand could not be altered, therefore, "Why give the laborer any concern?" Labor was just a commodity--"Were not they, the employers, helping the laborers by giving them work?"

As time elapsed, the laborer was thought of as a piece of equipment, or a unit of productive apparatus, capable of a certain output. When one laborer or unit of productive apparatus was worn out, it was discarded or replaced with a new unit. These human units were available because of the great hordes of emmigrants. No thought of the welfare of the indi-

vidual was evident for the worker was just a part of a machine in the "Machinery Conception".

Many employers began to realize that the theories that they had previously held regarding labor were now bringing them violent strikes, union trouble, and court actions in great numbers. A new problem, that of the introduction of women workers into industry, brought new personnel relationship difficulties. Finally, the discontention caused by starvation wages, hazards to life and health, poor and dangerous working conditions, brought about a new movement, commonly known as "welfare work". This movement is known as the "Goodwill Conception" of labor relations. It was realized that the welfare of the employee had a tremendous effect upon industrial productivity. Instructions were given on safer methods of doing dangerous work. Balanced meals were served in lunch rooms that were installed within the factory. Numerous rest rooms for both men and women were added for the convenience of the workers. Bulletin boards, which contained instructive and interesting material, were set up. Visiting nurses were employed for the purpose of giving helpful information through home visitation.

The welfare movement was not accepted as the employer had expected. The visiting nurse was looked upon as a spy; the bulletin boards were called "propaganda boards"; first aid stations were ridiculed as places where "he men" did not go to be fussed over; and safety devices were blamed for low wages.

As a rule, the company with the most active program received the most criticism.

After many problems were left unsolved, due to the fact that the worker had failed to respond to the welfare work in a positive manner, labor was thought of as a "Natural Resource", along with the natural resources of our country, which included fuel, timber, soil, waterpower, and many others.

Labor is thought of as an indispensable asset which must be conserved if the nation is to survive. Statesmen quickly adopted this idea and enacted such laws as: protection of child labor; restriction of hours for women; enactment of workmen's compensation laws; health and accident legislation; and just lately, laws covering wages and hours.

THE PERSONNEL MOVEMENT

With all the foregoing theories proving inadequate, the employer began to improve conditions using new theories known as the personnel movement.

The Beginning and Growth of Personnel Management. In the early part of the twentieth century, some forward thinking employers decided that the whole attitude between the worker and the employer was wrong. They decided that a cooperative attitude was needed to develop efficient production. The men should take an interest in their work. They must be present, on the job, in mind as well as body. Dictatorial

demands by either employer or employees were not necessary. This new attitude was the beginning of the personnel movement, which marked a new era in the handling of men.

During the growth of personnel management to its present state in industry, three more conceptions or theories were obvious. They were: the human conception; the conception of individual differences; and the citizenship conception.

Theories Regarding Personnel Management in Industry. The human conception was the first to admit that the employee had a personality and that he was appreciated. This conception held that industry had a moral responsibility toward its employee. Employers should help the laborer to make something of himself and of his life. This doctrine stated that industry had three obligations: (1) to the stockholders; (2) to the customers; and (3) to the employees. Industry did not adopt this belief until after 1900.

This new doctrine of personnel work, was also based upon the concept that men differ one from another, in temperament, in mental ability, as well as in physical make up. Industry had previously made no distinction or allowances for individual differences. All men might be assigned to the same type of work, subjected to the same discipline, given the same time to complete work, and from all the same result was expected. After a study of this new phase of personnel work was made, the following facts were found important: (16, Pages 9-10)

> First, one individual differs from another in those personal aptitudes, those special abilities with which he is equipped and which he is able to contribute to the work of his company in exchange for his salary.
>
> Second, individuals differ in their interests and motives and respond best to varying stimuli.
>
> Third, the same individual changes from day to day and from year to year in ability (both in degree and kind) and in interest.
>
> Fourth, different kinds of work require different kinds of personal ability in persons who are to perform them.
>
> Fifth, granting equal ability, different kinds of personal work are done best by persons who, tempermentally, are particularly interested in them.
>
> Sixth, the work in each position in a company changes as time goes on; duties are added and taken away. Sometimes the change is negligible, sometimes it is great. In the measure in which it takes place, a similar change is apt to take place in the abilities and interests the work requires of the worker.
>
> Seventh; environment, working conditions, supervision, relations with the employer and with fellow employees, opportunity, and so forth, exercise a tremendous influence on personnel efficiency and consequently, on group production.

From this it is apparent that personnel management is not merely a problem of discovering the right man for the right place, of the finding of square pegs for square holes, but rather, the job will affect the worker and the worker will affect the job. Arrangements must be made to make needed changes when it is found that the job and the person are no longer synchronized.

Just as the idea that workers were merely instruments

of production capable of so much work, gave way to the idea that laborers were human beings who reacted differently to different situations, so did the human relationship conception give way to the "citizenship conception". This citizenship idea gives the laborer the right to a voice in the industry in which he is employed, just as he has the right to a voice in the government under which he lives. Laborers are important factors in determining the rules and regulations under which they work.

PERSONNEL ORGANIZATIONS IN MODERN INDUSTRY

In order to understand how the job and the man were synchronized one must understand the role that industry has had to assume. Also, the functions of industry must be reviewed.

Industry in a Paternal Role. For many years man was his own employer. He taught his sons his trade, just as his father had taught him. The industry was all within the family. The problems of health, training, education, employment, and social work were all absorbed within the family. What could not be secured within the home, could be secured from a neighbor within the community by barter. Division of labor was not in use, as it was introduced after the industrial revolution. Each male member of the family was taught a complete

trade. The family was largely self-maintained, and had little need to worry for its future. At the present time a much more complicated system of living is in force, that of the "division of labor".

The division of labor simply means that the numerous trades are divided and redivided into jobs and into operations, until men are learning only one minor job. This is especially true in the manufacturing industries where many machines are in use. Many social, physical, and economic problems have arisen which industry has had to assume the responsibility of correcting, in order to continue in business. Now "industrial relations" departments (personnel relations) are necessary departments in all the larger industries.

The term "industrial relations", means relationship or coordination between the employees and the employers. Unfriendly relations on the part of both the employer and the employee were evidently due to several causes. The main one was, according to Tead and Metcalf, (20, pages 28-29) that approximately, ". . . . one half of the employees in industry occupy themselves at work which offers no outlet for self-expression for a long continued period of years". The problem is still so serious as to require expert attention, if the development and enthusiasm of the employees is to be assured. Personnel departments in industry are doing much toward re-creating self-expression so that the employees will have much

to live for and think about, and the whole factory organization will function smoothly. In order to achieve these aims, personnel departments assign to themselves definite functions which will be enumerated in the following paragraph.

Functions of Personnel Departments in Industry. The functions of the personnel departments in industry are many. Walters, J. E., (21, page 53) lists the six main divisions that are generally accepted by industry as personnel work. The divisions, with respective subdivisions, are as follows:

I. Employment:
   (a) The personnel supply
   (b) Selection and placement
      (1) Interviews
      (2) Examinations and tests
      (3) Selection
      (4) Introduction
   (c) Promotions
   (d) Transfers
   (e) Regulation
   (f) Discharges
   (g) Retiring
   (h) Rehiring
   (i) Research

II. Personnel Maintenance:
   (a) Wages and rewards
   (b) Job analysis
   (c) Job specifications
   (d) Ratings
   (e) Employee representations
   (f) Shop rules
   (g) Employee organizations
   (h) Employer organizations
   (i) Labor audit
   (j) Labor turnover
   (k) Records
   (l) Statistics

III. Training and education:
- (a) Job instruction
- (b) Training workers to be foremen
- (c) Foreman training
- (d) Executive training
- (e) Apprentice training
- (f) General industrial education
- (g) Company library
- (h) Americanism

IV. Health:
- (a) Physical examination
- (b) First-aid and dispensaries
- (c) Medical treatments
- (d) Hospital
- (e) Sanitation
- (f) Special Treatments
- (g) Health education
- (h) Mental hygiene
- (i) Recreation and rest periods

V. Safety:
- (a) Mechanical safeguards
- (b) Safety inspection
- (c) Safety education and publicity
- (d) Safety statistical work
- (e) Engineering revisions and safety engineering
- (f) Safety competitions
- (g) Fire and police activities

VI. Service Work:
- (a) Thrift plans
- (b) Recreational and social activities
- (c) Suggestion systems
- (d) Housing, gardens and parks
- (e) Plant magazines
- (f) Restaurants, lunch rooms, and stores
- (g) Legal aid and miscellaneous

Nearly all of the larger manufacturing plants have similar organizations, however Tead and Metcalf (20, page 37) list personnel departments as being divided into these six main divisions: i.e., (1) employment; (2) health and safety; (3) education; (4) research; (5) service feature; and (6) joint

relations.

To carry on the functions of the various divisions, many trained persons are employed in each. Such persons as physicians, nurses, physical education directors, legal advisers, and other special service directors are employed.

Types of Organizations Used by Industry. In order to better understand the methods which control a personnel department, one must first understand the common types of organizations. The most common are: the line; the line and staff; and the functional type.

The "line" type is an organization where all lines of authority are brought together in one person. This person, whether manager, foreman, straw boss, or subforeman, alone gives orders and every one in "line" under him is responsible to him. An example of a line organization is shown in Figure 1.

The line type is a very strong organization and when commands are well worked out there is undivided authority only, running all the way down from the top clear to every position at the bottom of the organization.

The "line and staff" type of organization is not as definite as the line type. In this form of organization there is a line or departmental organization for doing the actual manufacturing, and a supplementary staff organization acting in an advisory and investigating capacity. The first group have the ability of getting things done; the second furnishes

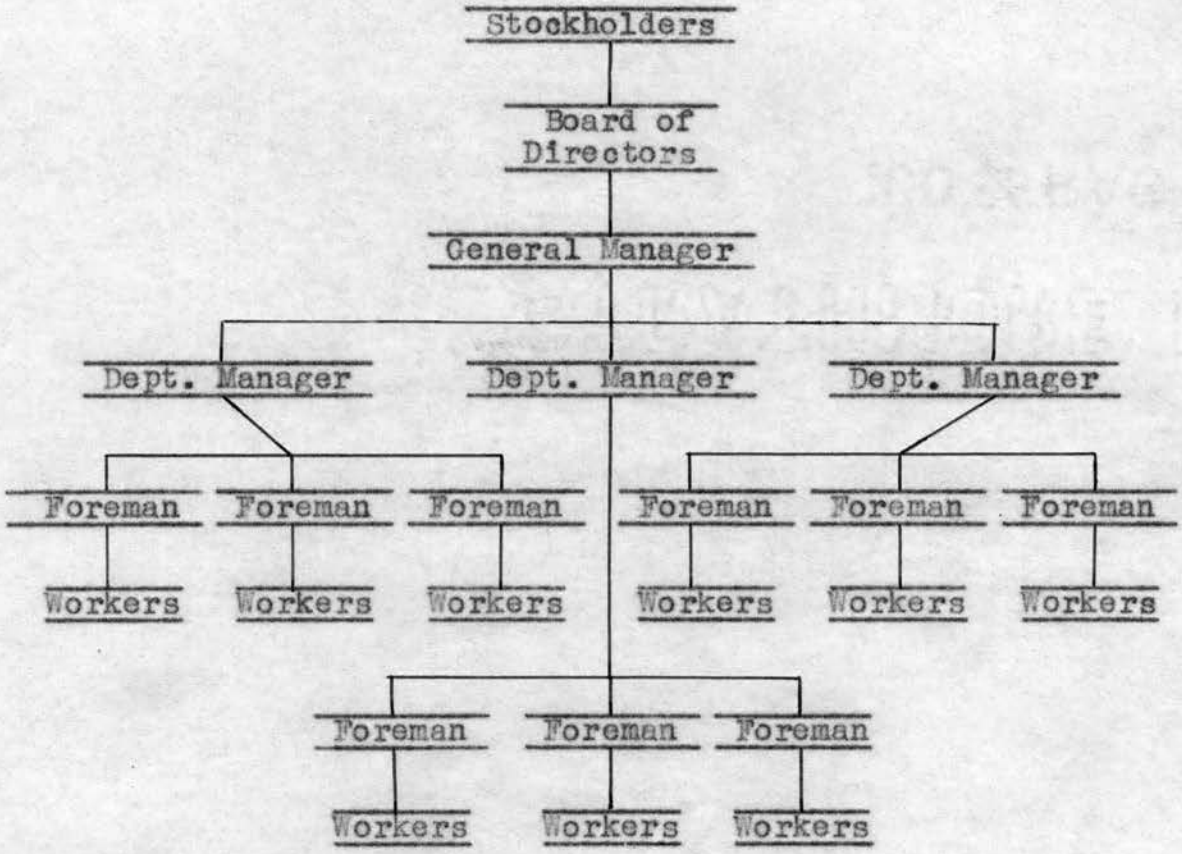


Figure 1. Line Organization.

the information on the ways and means of doing things. The staff are generally scientists, engineers, and executives trained in methods and procedure, who make analyses, do research and investigation work, and who bring expert intelligence and skill to bear on each problem that may arise. See Figure 2.

The functional form of organization is designed so that several people or foremen have control of the workers of a department or a factory. When there are conflicting ideas between these foremen there is weakness. This method was pro-

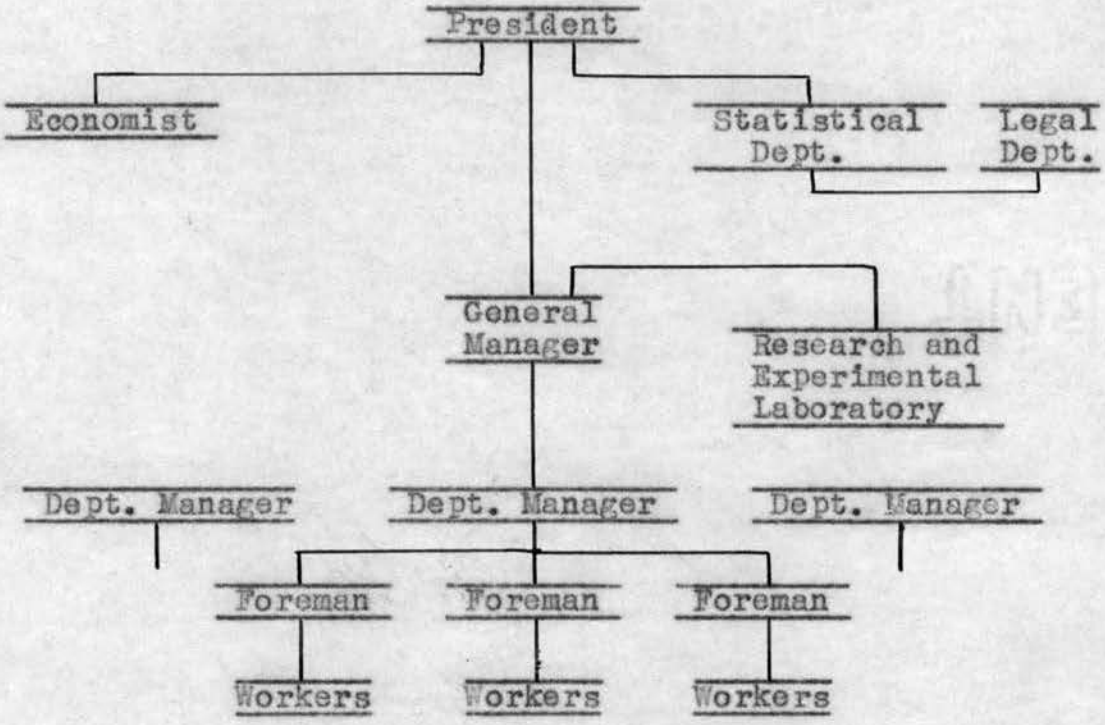


Figure 2. Line and Staff.

posed by Fredrick W. Taylor in his analysis of a plan he worked out for the Midvale Steel Corporation in 1881. (1, pages 51-52) Planning was done in a planning room by four specialists. Direct charge of the operations was under four foremen in the shop. Each of these eight had authority over the worker: the four planners by instruction sheets, time cards, work tickets, and piece rate cards: the other foremen had the responsibility to see that the jobs specified were done. A chart of this type of organization is shown in Figure 3.

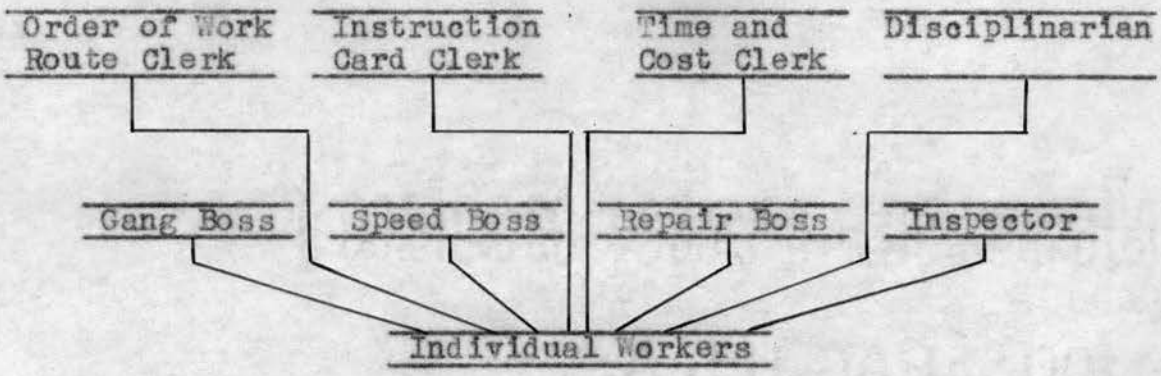


Figure 3. Functional Organization.

IMPLICATIONS FOR PERSONNEL ORGANIZATIONS IN INDUSTRIAL ARTS CLASSES

With an idea of what industry is doing and an understanding of the type of organizations used in industry it would be well to consider what could be done with such an organization in industrial arts classes.

Personnel Organizations Necessary in Industry. Industrial organizations have discovered the most effective methods of dealing with the laborer. They have found that man is more than just a machine. As a tender of machines there are imposed upon him a repetition of muscular and nervous actions which are not similar to a machine. When this was understood, improvements were made for his comfort. Later, laborers were given all the considerate treatment which only intelligence and insight regarding human nature could suggest through personnel work.

Besides taking into consideration that workers are human beings, industry has to realize the worth of personnel organizations for two reasons: i. e., (1) economic, and (2) psychological, (20, page 28). The economic reason has to do with the ". . . . structure of modern industry and the modern corporation, with the nature of processes under present machine conditions, and with the need for specialized attention to problems like selection and training," says Tead and Metcalf.

The psychological reason deals with satisfying the employees by offering security of employment, fair treatment, and creating in them interest, enthusiasm and good will through letting them participate in various activities, and in self-government.

Personnel Organizations Could be Used in Industrial Arts. The leaders in the Industrial Arts field have in the past, and are continually using practices and methods which have been proven in industry. The training given pupils in industrial arts classes having been centered around industrial practices is an educational aid to industry both directly and indirectly. Directly, it stimulates pupils toward either entering or not entering into industrial pursuits, as well as giving him an insight into industrial life and practices. Indirectly, a more wholesome attitude and appreciation of industry, the laborer, practices and products made in industry,

is evident through the orientation of students through the more progressive industrial arts classes.

The management of industrial arts classes is, in many ways, similar to the management problems of industry. Industrial Arts has gone through similar stages of development in dealing with problems of individual differences, economy of materials and time, safety, sanitation, health, keeping records, care of equipment, and cleaning up the premises. A personnel department with pupil-participation dominating should prevail in order to keep up with the more progressive industrial plants. This idea is carried out by Struck in his writing on socialized instruction and on management of pupils, (19, pages 295, 469-472).

> Various plans of pupil participation in management are used as means of developing individuals in the qualities and abilities that are needed in a progressive social order. . . .
>
> . . . . . .
>
> Pupil participation in school-shop management is provided in general industrial arts shops as well as in those operating on a vocational basis. The general plan has been borrowed from industry. It consists of having an organization which includes a shop superintendent, ... and other assistants all working under the guidance of the teacher.

A review of the development of personnel programs in industrial arts, the need for a personnel program, and examples of various personnel programs, will be discussed in the next chapter.

CHAPTER III

THE DEVELOPMENT OF PERSONNEL ORGANIZATIONS IN INDUSTRIAL ARTS CLASSES

Nearly all first-class schools include in their curricula several courses in Industrial Arts. While this term is used commonly and glibly, few have ever stopped to ask "What is Industrial Arts?" The answer to this question may be given in formal statements of definitions, these definitions may be supplemented by listing the major objectives or aims of the subject and its meaning may be made more clear by giving examples of actual operating programs in junior and senior high schools.

WHAT IS INDUSTRIAL ARTS

Some think of industrial arts as a narrow course. On the contrary, it is a very broad field having many courses of instruction, such as: woodwork, metalwork, industrial drawing, electricity, foundry, automotive mechanics and many others. Definitions, status, and class-size of industrial arts in Oklahoma will follow.

Definitions of Industrial Arts. The best known of Industrial Arts definitions was proposed by Bonser, F. Gordon, in a book entitled Industrial Arts for Elementary Schools, of which he was co-author with Mossman, Lois Coffee (3, page 5).

> Industrial arts is a study of the changes made by man in the form of materials to increase their values and of the problems of life related to these changes.

The definition adopted by the State Advancement Committee for Industrial Arts in Oklahoma Schools (18, pagel) is as follows:

> Industrial arts, as a school subject, may be defined as a study of the processes, tools, and machines by means of which the forces of nature are utilized and the raw materials of nature are changed by man to make them more valuable and pleasing. It includes an understanding of the native qualities of raw materials and of the natural forces, together with a knowledge of the methods and practices of utilizing and changing these materials and forces. It is also concerned with the social and economic problems incident to these changes.

Status of Industrial Arts. The status or place of industrial arts has deviated much from the time the name was changed from "Manual Training" to "Industrial Arts". The change was from the narrow "hand training" to the "complete social education of every boy in a dominantly industrial democracy". (8, page 2)

In Industrial Arts, boys from all walks of life meet on the same plane. Here they must cooperate, work, and give and take together. An insight into how fifty million wage-earners work is given to these pupils.

Try-out experiences, through first-hand study of occupations, provide educational and vocational guidance. These will assist the boy in his choice "toward or away from"

industrial occupations as a life work, and will aid him to find out in what particular trade or industry his capacities, aptitudes and possible abilities lie.

The boy is aided, through his participation in industrial arts, in his study of the social, economic and related occupational problems. Progressive instructors are trying to interpret industrial arts broadly. (8, page 2)

> Such teachers (progressive) are attempting to interpret industrial life broadly. Included in the socio-economic phases of industry are problems involving "personnel management", state and federal regulations, education and training, problems of financial management and ownership, production of costs, raw products, distribution and organization of workers.

If these are the problems of industry, then they become problems of education and of Industrial Arts.

Class Size. Since the depression years of the last decade, the number of students enrolled in industrial arts classes have increased per teacher, until now in the larger school systems the number is similar to that of an ordinary academic class. In most cases this situation is caused by a shortage of school finances. This situation, according to O. B. Badger, recently of Tulsa, Oklahoma, has caused more need for pupil-personnel work. (2, page 5)

> The present economic status of schools has forced school administrators to increase the size of classes in the field of industrial arts in most cities to the same size usually found in academic classes, which means that classes of forty or more,

at least in the larger centers of population, are more common than classes under this size.

In the smaller centers of population the number of courses taught in industrial arts were reduced in number, thus leaving larger classes. This has made the need of personnel work necessary.

In 1934, Singleterry (17, page 14) reported 30.7 percent of the classes in Oklahoma contained more than thirty pupils each period. This would allow less than two minutes per pupil for individual instruction.

In 1938, Pope (13, page 52) reported an average of 22.74 pupils per class in industrial arts classes in Oklahoma. The teacher would have less than three minutes per pupil for individual instruction. See TABLE I.

With some of the facts of industrial arts established, it will be necessary to create a need for a program and an organization to carry out the objectives of industrial arts on a more efficient basis.

THE NEED FOR A PERSONNEL ORGANIZATION

Such a program, having been tried out in industry and found necessary, should be valuable to industrial arts programs. Personnel programs have been used in industrial arts shops and a need has been found for them, especially with socialized instruction.

TABLE I

*TEACHER LOAD FOR VARIOUS NUMBER OF PERIODS

No. Classes Per Day in Industrial Arts	Average No. Pupils Per Period	No. Teachers
One	15.35	14
Two	13.93	15
Three	21.25	13
Four	19.53	24
Five	23.87	43
Six	26.73	30
Seven	22.00	2
For all teachers	22.74	141

*Taken from Pope Thesis (13,page 52)

The Need for a Change in Education. There has been much written about our democratic ideas of the United States. To look back over a period of years, or to look now at the countries at war, one wonders if our educational system does not need a change. Brubacker has said, ". . . . there has been an obvious and pronounced dissatisfaction with the social order that has hatched the most destructive war and the severest economic depression in history." (4, 761-768) A change has been suggested by many who are not content with leaving schools as they were.

There are several conflicting ideas regarding educational methods. Some think that schools should cling to the

status quo, that of individualism, and others hold the idea that socialized instruction should be practiced.

Individualized instruction has its advantages, points out Struck (19, page 283) but when social values are left out it has many weaknesses. He refers to two individual instruction plans, which are now adding provisions for socialized group activities.

Socialized instruction trends are evident now, according to Struck (19, page 283). Because of many problems, the main ones being specialization, urbanization, and transportation, from which have grown such measures as workmen's compensation, rehabilitation legislation, unemployment insurance, and old age pension provisions.

Personnel Organizations, Based on Socialized Instruction. Personnel organizations are such that socialized instruction is given. Its whole organization is based on democratic ideas that are teacher guided. The organization is in the hands of the pupils who have definite responsibilities and supervisory jobs similar to those they would perform in industry and in life situations.

Some have the opinion that individual instruction should predominate so that the slower individual can be accelerated and that the faster pupil might not be held back. Some say that conditions should be true to life and that socialized procedures should be used.

Both individual and group plans are carried out in shops using a personnel organization. This is especially true when the individual project method is used in conjunction with a personnel organization. Individual instruction is given to all as they work on their individual projects thus they can gain experience and information at the rate at which they can progress. Socialized instruction is the theme of the personnel organization as it is carried on through cooperation within the group.

THE DEVELOPMENT OF PERSONNEL ORGANIZATION IN INDUSTRIAL ARTS

Industrial arts under that name only dates back to about 1910 to 1916. This change was due to the "Manual Training" program failing to meet the training needs of industry. Prior to the time of this change there was a formal type of teacher-made, teacher-directed organization.

Teacher Dominated Class Procedure. Under this teacher dominated type of procedure, the teacher did all the planning, executing, and evaluation of the pupils work.

There was no flexibility in this plan. Plans were made by the teacher and were carried out according to his dictates. Whether his plan was sound and correct, was not doubted by his pupils. Set procedures were carried out, and set projects, or problems were made.

The evaluation of the pupils work was done entirely by the teacher and little or none was done by the pupil.

Learning situations, in most cases, were forced on the pupil. Such situations were artifical and not true to life.

Superintendent Plan of Procedure. As classes grew larger and routine duties increased, instructors started to follow some of the procedure of industry by appointing a helper or superintendent. The superintendent had two responsibilities: (1) aid the instructor in doing routine duties; and (2) help some of the slow sudents. As an aid to the teacher in doing routine tasks the superintendent performed such jobs as checking tools and equipment, and aiding in clean-up responsibilities.

The superintendent did not have time for much more than his clean-up jobs and consequently did not help the students much. Under this plan the instructor still dominated the shop by directing all the activity.

Foremanship Plan of Organizations. By observing procedures of industry, type of organization made up of several boys acting as formen was adopted by instructors of industrial arts.

This plan was the first which included the idea that the pupil was a human, that he had rights, that he should have a voice in the government of his class, and that the

students welfare should be considered.

This was carried out by the appointment of pupils, by the teacher, to do various jobs of directing the class activity, checking tools and equipment, clean-up duties, and looking after first-aid by individual students.

This movement was started about 1925 and gained much in importance after 1930. The reason for the change was accelerated because of large classes and the so-called "exploratory courses". The exploratory courses were on the junior ligh level, and consist of a variety of learning units being taught in one room under one teacher. These courses are more commonly known as the "general shop", and the laboratory of industries".

Individual instruction by the teacher was one of the main features of this program. The instructor was left free to work with, and to instruct the pupils.

The Group Plan of Organizations. Since the depression, labor conditions, economic conditions, problems of government, and problems in education have changed to a more socially conceived philosophy. (19, pages 1-2) Socialized instruction is the aim of the more progressive teachers.

To accomplish these aims the instructor must guide, rather than direct the activities. He must keep himself in the backfield in most all instances. The instructor must also learn to advise, assist, and to stimulate the pupils through

group activity. This activity must be based on life-centered instruction, according to Struck, (19, pages 2-3).-"This includes mental growth, physical growth, manipulative growth, emotional growth, and moral growth . . . . he is guided toward larger social, economic, and political growth."

Industry has had such organizations for the past several years which include this type of "social work" and which is based on group activity. Industrial Arts instructors have taken some of these ideas and have given group instruction with the teacher in the background. These programs stress pupil planning, pupil cooperation, and pupil evaluating and purposing.

Such organizations, in addition to having a group of foremen, have a group of officers or a staff which coordinate the functions. They generally include a general superintendent, shop secretary, publicity manager, safety manager, stock room foreman, maintenance foreman, lumber room foreman, finishing room foreman, and tool room foreman. Clean up jobs are usually directed by several of these officers, while others of these officials look after other affairs of the group.

EXAMPLES OF PERSONNEL ORGANIZATIONS IN INDUSTRIAL ARTS

Many varying kinds of personnel organizations, that are in use have been written up in the professional shop magazines and in other sources. A review of these will materially aid in

the study of personnel organizations, and in the study of shop procedure. The articles will be referred to by naming men who are responsible for the organizations.

Parks, Joseph C. One of the more interesting articles found by the writer was an article telling of the future of industrial education, written by Joseph Charles Park. (12,252-8) This article appeared in November, 1939. Park in this article indicated that future citizens of a great democracy are being "built", and, if they are to be citizens that we expect them to be, we should help them to know their "talents, tastes and aptitudes and how these may be best used in helping to do their work in the world." "A vital factor in a good shop course of today," said Park, "is proper shop organization and administration.

Parks idea of such an organization is to have a shop superintendent, three or four foremen, tool room manager, a pupil safety engineer, and a clean-up squad. These offices should rotate in the class, so that all pupils will participate in each activity. The foremen are appointed according to the number of activities going on in the shop. According to Park, full time jobs should be arranged in groups so as to deprive no boy of much time. Conferences were of vast importance and should be held in small groups. Foremen and superintendents should be given recognition. See Figure 4.

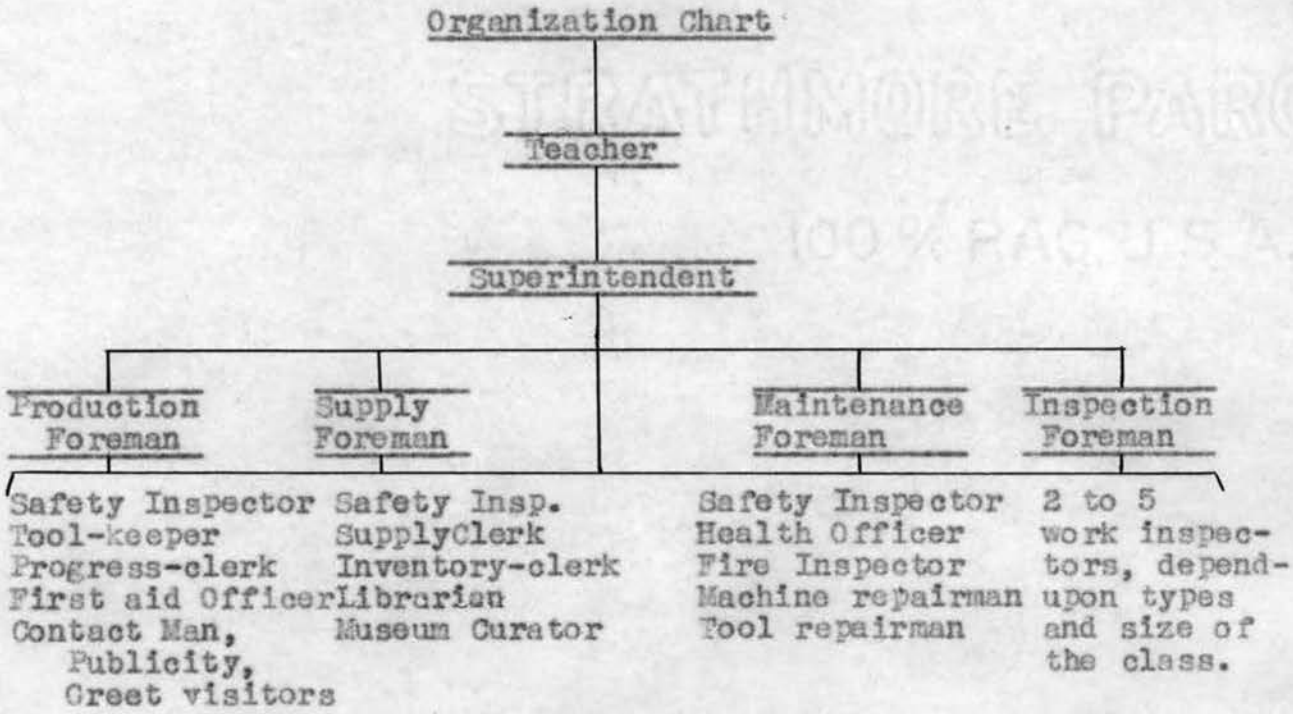


Figure 4. Park Organization.

Carlsen, F. A. In 1934 an article appeared in the Industrial Education Magazine (5, page 64-74) entitled "Pupil-Foreman Type of Organization as a Teaching Device in the General Shop." This article, written by F. A. Carlsen of Detroit, Michigan, has been the subject of many reports and is the basis of many present day personnel organizations. This plan assigns to groups of pupils, in rotation, a variety of managerial duties and responsibilities. The class is governed directly by a member of the class, the shop superintendent. He attends to the routine details of class management according to definite plans and instructions. He and all other officers serve for a term of one week. His service is graded by the

Instructor and is kept on a chart. The superintendent takes charge of the routine at the first of the class period and then calls on the instructor for the lesson for the day or other instruction that the instructor might have in mind. If a demonstration is in order the superintendent assists by having tools and supplies available. After the business for the day the superintendent makes a report to the instructor of any pupils who are not doing their duties. The instructor investigates and dismisses the delinquent officers and failing grades are entered on the chart. In this organization there are several "special assistants" to the instructor. These are the safety engineer, the pupil inspector, and the shop secretary, who are graded by the instructor.

Six minutes before the time for dismissal, the instructor turns off the main power switch which is a signal for the clean-up period. The shop superintendent holds the foremen in charge of various units or sections, responsible for the condition in which each department is left. The boy who refuses is reported to the instructor who deals with the problem as the case requires.

The grading system, as used by Carlsen, included two grades for each foreman. One was for "efficiency" and the other was for "cooperation". Efficiency is based on the ability of the foreman to get along with his group, willingness to leave his own job when necessary to help a boy in his

section, and willingness to follow the direction of the superintendent. The grading system is of major importance if the proper good is derived from a personnel system.

Other administrative jobs that were mentioned by Carlson, are the safety engineer and the pupil inspector. The "safety engineer" has his duties and responsibilities to see that safe practices are carried on in the shop. He supervises precautionary measures that are done in the shop, helps the instructor in administering first-aid, and prepares a written report of any accident to be signed by the injured boy. The "pupil inspector" is appointed by the instructor at times when performance tests are being given. He, in this way, aids the instructor in examining to tell if the pupils thoroughly understand methods of performance.

Other duties such as clean-up jobs are assigned by the superintendent and checked by foremen. These jobs include a number of assignments in each of the sections, in the tool room, in the finish room, in the lumber room, and other places in the shop.

Radford, Stanley. Later on during the year of Carlsen's article, another article appeared entitled "Drafting-Room Student-Personnel Organization and Management", written by Stanley S. Radford, Instructor of Drafting, The Arthur Hill Trade School, Saginaw, Michigan. (14, pages 137-9) In this article, Radford enumerated the objectives of his personnel

organization. In these objectives Radford suggests: (1) that students can be taught the value of organization, cooperation, and group effort; (2) students can be taught to assume responsibility, and have a definite part in the training program; (3) students can be taught to perform certain routine duties, and assist the instructor; (4) students trained by a program similar to this can fit into industrial organizations more readily; and (5) with a properly trained and functioning program the absence of the instructor would not hinder the class as it might if no personnel system was in effect. To carry out these objectives an organization is suggested.

An organization to accomplish these objectives includes seven officers. They are: (1) superintendent; (2) assistant superintendent; (3) foremen; (4) assistant foreman; and (5) three student checkers. The officers are carefully selected on the basis of: (1) scholarship; (2) dependability; (3) accuracy; and (4) personality traits. The instructor acts as a manager holding conferences with the staff when the need arises.

Advanced classes include a "designing division" and a "checking division". Beginning classes have a "drafting division" and a "checking division" also. The job of the designing division is to design jobs for use in the school shops. The designing division is made up of advanced students only. The drafting division is made up of beginning students

and includes the mastery of principles as its function. The checking division has the checking of all drawings before they are sent to the shop or graded by the instructor.

In conclusion of his article, S. S. Radford states that the success of a student organization depends on the instructor, the careful selection of the class officers, and the wisdom used in training and guiding these leaders in the performance of their duties. He adds that it is especially important to check all class officers to see that specific duties are properly performed in order to keep the organ- operating smoothly and officiently.

Such an organization would serve as an excellant core to build around. It is an excellent approach to practices as found in industry.

Jenkins, James E. An article entitled "General Shop Organization", appeared in the December, 1936, issue of a professional magazine, (10, pages 374-375), written by James E. Jenkins, which described an organization which he found to be helpful in his general shop classes.

There were approximately sixty boys enrolled in the five general-shop classes. Each class was organized on the six weeks basis. Each pupil spent six weeks each in wood- work, drawing, and electricity.

The success of the organization is made the responsib- ility of the class. The class nominated four members to fill

the offices of foreman and assistant foremen. A secret ballot is then held electing two. The rest of the positions are appointive by the teacher. These include: electrical clerk, and three librarians.

The foremen have the control of the manner the students perform their duties and in the care of the toolroom, while the clerks have charge of their respective units in checking the tools as they are brought to and from the toolroom, checking on the attendance, and to keep supplies distributed to the boys as they are needed. The term of office is six weeks.

According to Jenkins, ". . . . the opportunity for leadership, which the boys so eagerly assume and so wholeheartedly carry out, is in itself a most outstanding feature of this program." Other advantages of such an organization are that the instructor can check on individual performance better and can spend more time on real instruction.

The organization chart of Jenkin's general-shop plan is shown on Figure 5.

Orness, Carl J. An article appearing in the Industrial Arts and Vocational Education Magazine, Sept., 1931, (11, pages 309-314) entitled "Shop Class Management", by Orness, Carl J., seems to be the first organization of its kind to be used in an auto-mechanics shop.

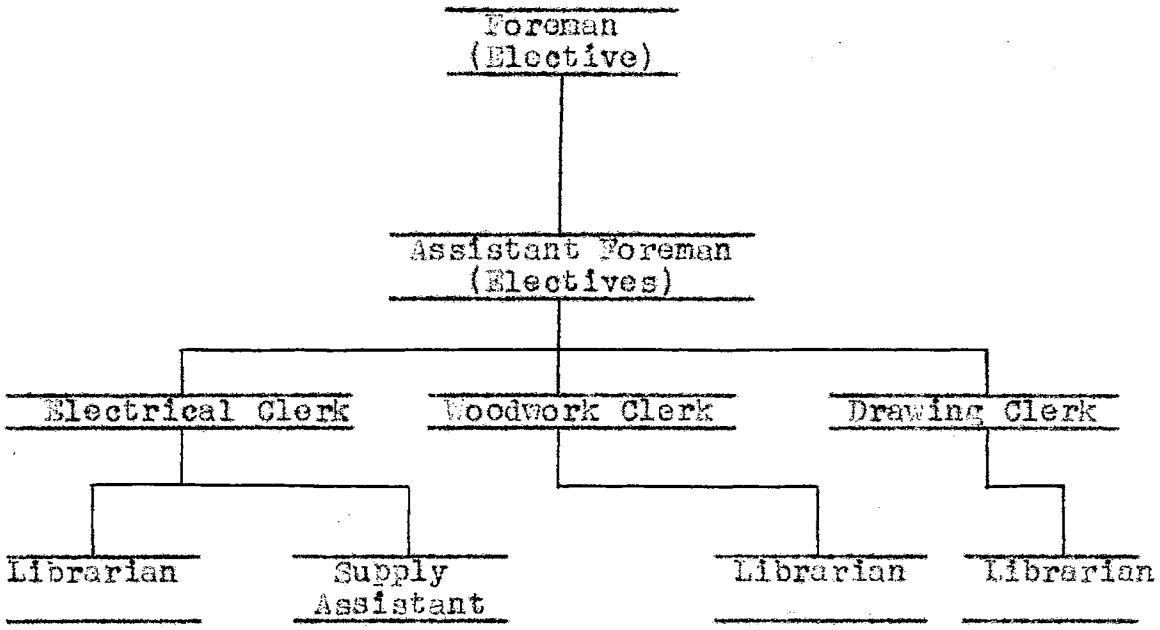


Figure 5. Jenkins Organization.

Orness divided the pupils into three groups. At the head of each group was a foreman who had the job of keeping his group together, checking out tools for his group, lock drawers at the end of the period, and to keep tools checked out within the hands of the group.

Two other officers included in this plan were the shop manager and the toolroom keeper. The shop manager had a number of duties to perform: take care of absence slips; O.K. and sign tool checks; see that every job had a job card; take care of parts-drawer chart; keep shop equipment in order; keep shop doors closed; see that operating engines were connected to exhaust connections; do special assigned jobs; check toolkeepers report for missing tools at the end of the

period, see that bench drawers were locked, clean-up jobs were finished, job card properly filled out, and that shop equipment is in its place, and hand in a report. The tool-keeper had routine toolroom duties that are customary tool-room jobs.

Included in this article are a number of record forms and report forms which would stimulate thought on the part of the student. Job cards similar to those used in industry are used in the organization plan used by Orness.

In addition to the advantages of shop personnel plans just given, Orness mentions the following: teaching methods of filing and record keeping; improves morale; through weekly rotation, the students are all put on the same level with his co-workers and is readily adapted to any class situation.

Carlsen, Richard M. It is generally believed that little or no organization is needed in the drafting room. This is true, only when the class size is very small. Accord-to Carlsen, Richard, M. (6, pages 180-182) to get best results it is absolutely necessary to have the drafting room very well organized. Carlsen wrote of a plan that had been in use for two years in his shop in Detroit, Michigan.

The classes in drafting averaged about forty pupils, with four rows of ten each. The plan calls for four row foremen, attendance clerk, envelope foreman, checker of special instruments, checker of instrument cabinet, recording

clerk, chief draftsmen, and class superintendent.

The class superintendent is in charge of the class and is the first officer to be elected. He has charge of the routine of the class. He supervises the orderly (by rows) clean-up period and calls the class together at the first of the class period. The recording clerk records the grades of the plates and of the tests.

The chief draftsman or draftsmen, as the number varies as there is need for them, check drawings once each week before they are turned in to the instructor to grade. The attendance clerk takes charge of the attendance of the class and records it in the record book. The envelope foreman, at the beginning of the class period distributes the envelopes to the foremen of each of the four rows, to be passed out, by the foremen. The envelopes are collected in the same manner.

The checker of the special instrument cabinet checks the tools out at the beginning of the hour and is responsible for their return. The checker of the instrument cabinet checks the forty individual instrument boxes at the first and the last of the period and is responsible for the looking after them and seeing that they are locked at the end of the period. The foremen have their row in charge, thus keeping down unnecessary disturbance.

All officers serve for a period of one semester except the checker, unless it was found necessary to change. The

only requirement found necessary for eligibility to the offices is, regularity in attendance, and not scholastic achievement. The organization chart of the plan used by Carlsen is shown in Figure 6.

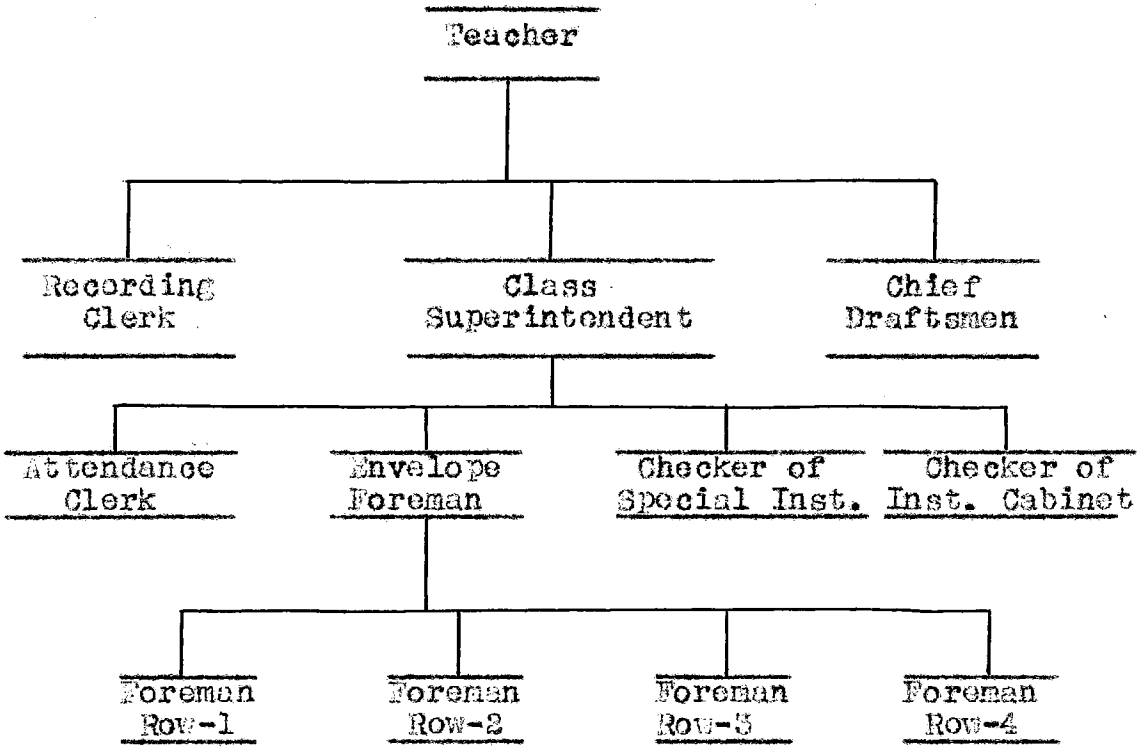


Figure 6. Carlsen, R. M. Organization.

Warner, William E. A symposium was edited by members of the 1930 Summer Session, Class in Course 400, in the Practical Arts and Vocational Education Dept., Ohio State University, Columbus, Ohio. It was entitled Organizing Pupil Personnel in the Laboratory of Industries. William E. Warner was the instructor in charge. (22, pages 1-58)

The purpose of this report was the felt need for the development of social growth, and that individuality should not be stifled. It was thought that the organization problem was one that confronted every teacher who attempted to teach a progressive type of diversified work with classes of from fifteen to sixty pupils.

Subjects taken up in this report include the following: problems and types of organizations; the laboratory of industries; the functions of the personnel organization in school and industry; the organization chart; starting and developing the organization; and an objective basis for selecting personnel; writing the essay specifications; the place of the instructor; the staff positions and their duties and line positions and their duties.

The organization includes a superintendent who is either elected or appointed for a period of one semester, and has the central control of the class. He is immediately in charge of two assistant superintendents. One of the assistant superintendents has charge of a "line organization", and the other has charge of a "staff organization". The staff organization members have advisory duties over the pupils in groups that they are foremen of. These assistants hold office for one semester each.

The staff members have such positions as: Chief clerk; emergency job foreman; director of personnel; designing

engineer; purchasing agent; efficiency engineer; safety director; director of exhibits and displays and librarian. The term of office for all staff members is from two weeks to one semester, depending on responsibilities.

The line members are in charge of various units of special functions such as: art metal; printing; experimental bench; sheet metal; tool room and assistants; blue printing; automotives; kiln operator; and other similar positions positions. Their term of office is for two or more weeks.

Hiekkila, John F. Wide recognition was given to a personnel organization plan by the Canvas Products Corporation, Fond Du Lac, Wisconsin, in 1956 in a book entitled Shop Organization for Industrial Arts Classes, written by John F. Heikkila of Babylon, Long Island, New York, who had used a similar plan in his high school shop. (9, page 55)

The plan calls for a general superintendent; a shop secretary, a publicity manager, a safety engineer, a stock room clerk, a maintenance foreman, a lumber room foreman, and a room foreman. The term of office is four weeks. They are all elected during a regular class meeting.

The general supervisor has supervision over all foremen and members of the class and is responsible for the grading of them. The other officers are responsible to the instructor. The grading is done on the basis of efficiency and cooperation. Various record cards are described in full

in this book by Heikkila.

The Canvas Products Company manufactures aprons for shop pupil- personnel purposes, with visible celluloid pockets into which will fit interchangeable printed identification cards. Upon being elected to an office, the boy is given recognition by being labeled as "Superintendent", or some other official. It is for the purpose of promoting incentives for better work.

Badger, O. B. In 1935, under the direction of O. B. Badger of Tulsa, a summer school class of teachers, wrote up reports of various subjects (in mimeograph form) dealing with the subject, Personnel Organization in Industrial Arts Classes. (2, pages 1-51)

Subjects discussed were as follows: topics for discussion with student foremen; a personnel organization for the unit wood workshop; a plan for a general woodwork shop; a personnel plan for a junior high school general shop; a proposed personnel organization; a general metal shop; and a plan for a junior high general metal shop.

All the shop organizations suggested had a staff type of organization with the general superintendent or the safety director in charge of line foreman (clean-up jobs).

Staff position generally included officers in charge of such jobs as: tool room; lumber room; general foreman; safety director; student records and librarian. The term of

office is generally six weeks in duration with the exception of the general superintendent who might hold office for a semester. These officers are all responsible to the instructor and have a number of detailed jobs to perform. Line positions, under the charge of the general superintendent are mainly over routine clean-up work.

With examples of personnel organizations in mind, implications for further study of conditions need be discussed.

IMPLICATIONS FOR THE NEED OF A STUDY OF PERSONNEL ORGANIZATIONS IN OKLAHOMA SCHOOLS

Implications seem to show the need of a study of conditions in Oklahoma. In order to make recommendations one should be better acquainted with: (1) what has been written of personnel organizations in Oklahoma? and (2) the value of a survey or study.

Written Material Regarding Personnel Organizations in Oklahoma. Little has been written in Oklahoma regarding the use of personnel organizations. A report entitled Personnel Organizations in Industrial Arts Classes was written by O. B. Badger and others, as a result of a study in a Minor Problems Class at Oklahoma A&M College, Stillwater, Oklahoma. Outside of this report very little information has been advanced in writing regarding personnel organizations.

No study as to how numerous the organizations are, what the purposes of the organizations are, what types of organizations are in use, or the number participating in such organizations or even whether such organizations exist, has before now been made. A study, then should be made regarding such conditions in Oklahoma in order to acquaint interested persons in the development of the industrial arts program through the use of pupil-personnel organizations which are used extensively by industrial plants and industrial arts classes in other states.

Value of a Comparative Study of Personnel Organizations in Industrial Arts Classes in Oklahoma. Since little has been written in Oklahoma on personnel work and organization, it is well that a survey and study be made concerning such work.

Oklahoma has many industrial concerns which pupils of today will enter tomorrow. Surely, habits of work and appreciation of conditions peculiar to industry, that are taught in industrial art classes should be investigated.

A definite personnel program, similar to that of industry, if needed, should be established.

CHAPTER IV

A STUDY OF PERSONNEL ORGANIZATIONS OF VARIOUS SHOPS IN OKLAHOMA AND PURPOSES FOR WHICH EACH ARE USED

In order to understand more clearly the extent to which personnel organizations are operating in Oklahoma, it would not be necessary to make a survey of every shop involved. It would, however, be necessary to get a good cross-section of what is being done in many cases. It was assumed by the writer, through observation of more than thirty shops in Oklahoma, that personnel organizations are used in larger schools more than they are in the smaller schools. This is largely due to several reasons previously mentioned. (Chapter III) On this assumption the writer made the survey of many of the larger school systems by the following methods: (1) by visiting over thirty schools and observing methods employed; (2) by personal interviews with many industrial arts teachers on methods used; and (3) by sending an inquiry letter to many of the larger schools asking for definite information regarding such an organization.

A copy of the form letters and the inquiry form appears in Appendix B. Thirty-eight of the eighty inquiry forms mailed were returned, or forty-five percent. Most of the survey is based on the findings of this inquiry and personal interviews.

In the writing of this survey, the material will be presented under the following topics: (1) the extent to which personnel organizations are used; (2) the purposes for which a personnel organization are used; (3) the election and qualifications of personnel organization officers; (4) duties and dispensation of duties; and (5) the findings.

THE EXTENT TO WHICH PERSONNEL ORGANIZATIONS ARE USED

In reading this survey, it must be remembered that the entire state was not covered. Only larger schools were contacted, along with smaller schools known to have personnel organization in operation.

Under this topic number and types of organizations will be compared.

Number of Personnel Organizations Used. Of the thirty-eight informants answering the inquiry form, thirty-two used a personnel organization of some kind, six informants reported no organization, and one failed to answer the question. (See TABLE II)

TABLE II

NUMBER USING PERSONNEL ORGANIZATIONS AS COVERED BY THE SURVEY

No. schools surveyed	Number using Per. Organization	Number not using Per. Organization	No. not Reporting
38	32	5	1

Percentage of Boys Holding Office. The kinds of organization used seem to be one of two extremes. Either just one boy to twenty percent of the members hold offices in the organization, or nearly all of the boys are used. (See TABLE III)

TABLE III

PERCENTAGE OF PUPILS HOLDING PERSONNEL OFFICES

Percentage of students holding personnel offices	Number of instructors reporting each
1 - 10	7
11 - 20	6
21 - 30	1
31 - 40	2
41 - 50	1
51 - 60	1
61 - 70	0
71 - 80	3
81 - 90	1
91 - 100	10

The reason for this variance is the type of organization plan used. Types varied from a strict line organization to a broad functional organization.

Types of Personnel Organizations. Some instructors wish to have all members of the shop organization on the same level in authority, while others prefer to have the line organization, placing some one to ten percent of the members in authoritative offices. Which type furnishes the most in educational training is debatable, however, those using the combination line and staff organization are in the majority.

The common type of line and staff organization is generally organized with the instructor as the general manager. A staff of some six or eight officers in charge of various functions, several foremen in charge of various departments and all responsible to one member of the staff.

THE PURPOSES FOR WHICH PERSONNEL ORGANIZATION ARE USED

During interviews and talks with shop teachers, many purposes for having personnel organizations were discussed. Most of the purposes can be classified into the following four groups: (1) teacher aid; (2) care of the shop and equipment; (3) shop organization; and (4) educational values.

As an aid in tabulating the purposes of personnel organizations, as listed from returned copies of the inquiry, the four classifications listed in previous paragraphs were used. (See TABLE IV)

Teacher Aid. As an aid to the teacher the personnel organizations give; (1) increased time for instruction;

TABLE IV

PURPOSES OF PERSONNEL ORGANIZATIONS

Chief Purposes		Number times occuring
Experience in industrial procedures		5
Develops acceptances of responsibilities		8
Develops leadership		6
Develops cooperation		9
Develops consumer knowledge		1
Develops citizenship		1
Develops followership		1
Develops pupil-planning		1
Develops methodical procedure		2
Develops safety practices		1
Educational purposes	Total	35
Familiarize students with class organization		3
Efficiency of shop operation		7
Distributes or provides responsibilities		9
"Dictatorship" is lessened		2
Necessary functions taken care of		1
Check on fulfillment of duties		1
Increases interest		
Shop organization	Total	23
Check tools and lumber		2
Decreases tool "disappearance"		1
Care of shop equipment		3
Orderly, neat shop		4
Care of shop projects		1
Care of shop and equipment	Total	11
Increases time for instructions		7
Relieve teachers of routine jobs		7
Assist in instruction		2
Teacher aid	Total	16

(2) relief from the routine jobs; and (3) assistance in instruction.

The survey shows that most teachers prefer to do their own instruction work with little assistance, while with few exceptions teachers report that they are given more time for individual instruction as a result of being relieved of routine tasks.

Care of Shop and Equipment. The care of the shop and the equipment was not mentioned as a purpose of the personnel organization but a few times on the inquiry filled in by the instructors. However, in observation of type of jobs given pupils in many schools visited, the majority of jobs used were clean-up jobs. It is assumed that the instructors have the "education of the pupil" as one of the chief purposes, rather than the "care of the shop".

Purposes given on the inquiry form which were classified as care of shop and equipment were: (1) check tools and lumber; (2) decreases tool disappearance; (3) care of shop equipment; (4) orderly, neat appearance of shop; and (5) care of shop projects.

Shop Organization. Many teachers realize the value of having a definite shop organization. It is of benefit to both the pupil and the instructor. Several purposes for a personnel organization were mentioned under the classification of organization, they are as follows: (1) familiarizes students

with the class organizations; (2) increases the efficiency of the shop operation; (3) distributes responsibilities; (4) decreases dictatorial qualities in the teachers; (5) Necessary functions are taken care of; and (6) serves as a check on fulfillment of duties.

In any organization there must be some method of distributing the responsibilities. The organiztion will not keep the interest of the members unless this function is performed. Instructors using the personnel organization realize this and as a result have mentioned this most as the chief purpose along with "develops cooperation" which falls under the classification of "Education". "Efficiency of shop operation" appeared frequently as a purpose due to the value to the student of a definite order of procedure carried out by the students themselves.

Educational Values. Industrial Arts teachers, as a whole, have the education of the pupil in view rather than one of the other three classifications. Out of the eighty-five purposes given on the inquiry as chief purposes of personnel organizations, thirty-five come under the classification of "educational".

The educational purposes listed by the informants are: (1) experience in industrial procedures; (2) develops acceptance of responsibilities; (3) develops leadership; (4) develops cooperation; (5) develops consumers knowledge;

(6) develops citizenship; (7) develops followership; (8) develops pupil-planning; (9) develops methodical procedure; and (10) develops safety practices.

Educational purposes are of more importance to the instructors for they realize, from their own experiences, that training for "life" is of great importance. If a boy is to work in industry he should gain experiences peculiar to those of industry. If any boy learns to accept responsibility, to accept leadership, or to cooperate he will be ready for society. Willingness to learn is the quality that many employers want in an individual.

THE ELECTION AND QUALIFICATIONS OF PERSONNEL ORGANIZATION OFFICERS

The methods of becoming officers of personnel organizations varied from the appointment of all officers by the teacher to the election of all officers by the class members. The variance is due primarily to the amount of authority each instructor wishes the pupils to assume. See TABLE V for methods of appointment of officers.

Appointment by the Instructor. The appointment of officers by the instructor is a common practice in Oklahoma. Instructors prefer to make some of the appointments to the more responsible positions, especially when accuracy in keeping records is so necessary. Due to strict laws on correct

TABLE V

APPOINTMENT OF PERSONNEL OFFICERS

Methods of appointment	Times checked
1. All members are appointed by the teachers.	11
2. All members are elected by the class.	1
3. Some elected and some appointed.	14
4. Rotation according to ability of accomplishment.	3
5. Rotation according to ability in handling people.	1
6. Rotation according to alphabetical or other order.	24

Note: Thirty-two instructors checked 54 times. Some checked two methods, indicating combinations.

attendance records, many instructors appoint the attendance clerks. More common appointments include one or two of the following officers: (1) supply clerks; (2) class secretary; (3) general superintendent; (4) tool room attendant; and (5) inspectors.

Common practice, also, is for the teacher to appoint necessary officials at the beginning of the school year until the members of the class are familiar with duties and then some other means of dispensing with duties is used.

In the larger schools it is customary for industrial arts instructors to have N. Y. A. Students or student assist- who are given special credit or compensation for work they do, usually the keeping of records. These individuals are usually chosen by the instructor from several individuals wanting such work.

Election by Members of the Class. The number of officials elected depends again on the instructors ideas on authority and type of organization. In some classes surveyed, a superintendent or a foreman is elected by the class to supervise activities. In other cases a staff is elected by the members of the class, which direct activities, either directly to the class, or indirectly, through the general superintendent. The general opinion held by many instructors is to delegate much authority to one elective individual and make all jobs responsible to him, except staff jobs.

Another way is the election of a staff of six to ten offices who are all on the same level with the general superintendent. They direct all clean-up and routine activities of the class and are directly responsible to the instructor.

The election of officials who in turn, appoint other members of the organization through rotation by alphabetical or other order is used in a majority of cases. The main advantage is that all of the students will have an opportunity

of doing all the jobs and thus benefit by experiencing many activities.

Qualifications of Class Officers. Instructors have varying opinions regarding the qualifications of pupils holding major offices, but most all seem to agree that many jobs are available which all, or nearly all, should gain experiences from.

For elective offices, the qualifications sometimes include some show of merit. (See TABLE V, Methods four and five) This is either by class grades, or the evidence of responsibility, at some previous time. "Foremen" says Fales, (7, pages 7-9) "should have extended experience before being promoted to the superintendency. Not only should they be rotated through several detail jobs, but they should be rotated through all the foremanship positions." The main qualification that instructors indicated that they insist upon was that of regularity in attendance.

Most instructors hold the idea that class choices are generally for the best, that no particular evidence of merit is necessary. (See TABLE V, Methods one, two, three, and six) In such cases the boy who is a problem child will become an aid to the instructor, rather than a hindrance to him.

The other extreme is to have all nominations, or appointments to offices approved by the instructor. In some cases the instructor nominates several members, one to be

elected by the class. (See TABLE V, Methods four and five)

Terms of Office for Members of Personnel Organizations. The terms of office for personnel organization members according to the inquiry, differed from one week to one semester. The variations given were as follows: (1) one to four weeks; (2) when the instructor sees it fit; (3) time divided according to the number of pupils enrolled; (4) one week; (5) two weeks; (6) three weeks; (7) six weeks; (8) nine weeks; (9) one semester; and (10) until the pupil tires.

Sixteen terms and combination of terms were found to be used in schools covered by the survey. The combination of terms are shown in TABLE VI.

The combination of having all clean-up jobs for the members for one week and the officer or officers for one semester occured the most times in the survey. The next combination of importance was to have one week for all officers and members of the organization. The third in importance was the use of several officers for a term of one semester with no term for the members of the class.

The reason for having the officers serve for a semester is for efficiency in operation. When giving pupils offices of responsibility a week or two does not give them enough time to become acquainted with all of their duties. There is always some doubt of who has authority. Clean-up jobs or routine jobs are generally understood by everyone, no authority

TABLE VI

TERMS OF OFFICE

Length of Terms		*Frequency
Clean-up jobs	Staff and Officers	Times Occuring
One week	One semester	8
Two weeks	One semester	1
Three weeks		1
One week		1
Until he tires	One semester	1
One week	One week	6
One semester	None	1
One week	Four weeks	1
One week	Six weeks	1
None	One semester	4
One and two weeks	One semester	1
Divided according to manner of pupils	None	1
No report	No report	7
One and two weeks	One and two weeks	1
Three weeks	Nine weeks	1
None	Six weeks	1
One week	None	1

* 38 instructors reporting

is needed. An occasional reminder is all that is necessary. Therefore the duration of clean-up jobs are generally only for a period of one week. Another reason instructors give for one-week clean-up jobs is so that all the members of the class may have an opportunity to gain experience in all the jobs.

In general shop classes, officers in a certain unit are generally appointed for the duration of that unit, with

clean-up positions rotating among the members, while a superintendent is generally in charge of all the shop units. The superintendent is appointed for a longer period of time, usually the duration of several of the units.

Standing Committees. Seven committees were suggested by the informants. A committee on safety was used in four of the shops. Other standing committees each used by one instructor are the following: (1) "social"; (2) "shop foremen" serve as a planning board; (3)"Field trips"; (4) "Ventilation, heat and light committee"; (5) "committee for collection of new plans; and (6) "committee for the collection of discarded magazines".

With few exceptions in interviews, instructor believed that safety education is one of the most important features taught in the shop. In order to accomplish this aim committees on safety are appointed, therefore more emphasis is placed on safe practices, use of guards, first aid instruction, and the knowledge of safety rules.

Other committees were only mentioned once, therefore no discussion will be made of them. (See TABLE VII) They all are of importance and should be considered when making out a personnel program.

Temporary Committees. Temporary committees were appointed for the purpose of working on various special

TABLE VII

COMMITTEES

Standing Committees	Frequency
Social	1
Shop foremen serve as a planning board. Shop problems taken up.	1
Safety	4
Field trips (suggested)	1
Ventilation, light, heat.	1
Collection of new plans.	1
Collection of discarded magazines.	1

Temporary Committees	Frequency
Open house	2
Citizenship, discipline measures adopted by them.	1
Shop policies and rules	1
Program Committees	2
Assembly programs	1
Publicity stunts	1
Special functions	4

Note: Thirty-two instructors reported only seven standing committees. Ten instructors use standing committees. Eleven instructors reported use of temporary committees.

activities or problems that arise during a school term. Several committees were reported as working on "shop policies and rules". Others included: (1) "assembly programs; (2) "publicity stunts"; (3) "open house nights" and (4)"special functions". (TABLE VII)

The more democratic way of organizing shop classes would be to have shop rules and policies worked out by a representative group or committee from the shop classes. Instructors feel the need for this situation, but feel that it would make the organization too complex, while others feel that they are not qualified to carry on such a program. Industry has similar programs. (20, pages 439-443)

Temporary committees offer means of dealing with special jobs, programs, or publicity stunts that always make their appearance at various times during the school year.

DUTIES AND MEANS OF DISPENSATION

In order that the reasons for a personnel organization might be stated the type of jobs or duties were surveyed. Type of jobs suggest much toward the analyzing of organization. Each job offers a field for instruction. As the class proceeds with its work, various officers, duties and jobs are "passed on". This calls for a means of dispensation. This, also will be discussed.

Type of Jobs for Which Personnel Organizations Are Used. Type of jobs used in the personnel organizations were numerous. In finding out the jobs which were used more, the inquiry was used. A list of jobs were given on the form with instructions for the checking of the grade level and the type of shop in which each job was used.

The twelve jobs appearing in order of importance were: (1) issuing and checking tools; (2) maintenance of the benches; (3) checking the tool board; (4) care of the shop library; (5) care for ventilation; (6) keep time (notify students to clean up; (7) shop superintendent; (8) foreman of shop areas; (9) storage of clamps; (10) care for locker storage; (11) check the class roll; and (12) care for the glue-pot. Other jobs are given in TABLE VIII, which gives the list of the jobs with the number of times each was used by the thirty-eight instructors in the various type shops.

Of the thirty-eight instructors answering the inquiry, the number and the types of shop which was indicated they taught is shown in TABLE IX.

DISPENSING THE DUTIES OF THE PERSONNEL ORGANIZATION. With personnel jobs changing so many times during the semester, it is necessary for the instructor to use some method of dispensing the various duties. As a result some "kink" or board is in use by many of the instructors. Drawings of various systems used in classes visited are shown in Appendix C.

TABLE VIII

TYPE OF JOBS

Type jobs for which personnel organizations are used.	Type Shop						Total times used
	WW	M	Pr	MD	GS	E	
Check class roll	12	3		2	4		21*
Issue hardware	11	2			2		15
Issue lumber	9				2		11
Issue finishes	12	2			3		17
Issue and check tools	20	5		3	6	2	36*
Care for ventilation	13	4		3	4	2	26*
Check tool boards	20	6		1	6	1	34*
Maintenance of benches	14	6		3	6	2	35*
Maintenance of floors	8	2			2	1	13
Maintenance of tools	16	5		2	4	2	19
Administer first-aid	7	1			3		11
Keep all class records	1	2		1	1		5
To keep time	11	4		3	5	3	25*
Read notices from principal's office	3	2		1	2		8
Take care of publicity in school paper	5	2		3	2	1	13
Prepare and display bulletin board material	9	3		1	5	1	19
Guides to show visitors about the shop	7	2		1	2	2	14
Orient new students	6	2		3	4	1	16
Report 'Horse-play' to the instructor	2	1		1	1		5
Take care of shop library	21	2		1	6	2	32*
Storage of clamps	15	2			5	1	23*
Care for the glue-pot	15	2			3		20*
Care for locker storage	15	3		1	3	1	22*
Wash sinks and drinking fountains	8	2			3		13
Custodians of keys	6	2		1	1	2	12
Assist in demostrations	6	2		2	4		14
Give demostrations	6	2		2	4		17
Care for unfinished projects	9	2			4	1	16
Foreman of shop areas	10	3		4	4	2	23*
Safety education	8	3		2	4	2	19
Health education	4	2		1	2		9
Care of exhibitions	6	2		3			11
Shop superintendent	12	3		2	4	2	23*
Maintenance of machines	6				2		9

* The twelve jobs used more frequently.
Type shops are abbreviated as follows: Woodwork-WW; Metal-M Printing-Pr; Mechanical Drawing-MD; General Shop-GS; Electricity -E

TABLE IX

NUMBER OF EACH TYPE OF SHOP TAUGHT

Type of shops taught (38 Instructors)	Number of shops of each type
Woodwork	26
Metal	7
Industrial Drawing	9
General Shop	10
Electricity	3

Note: Fifty-five shops are represented. They are taught by thirty-eight instructors.

Responses to the inquiry on the methods used in dispensing the duties of a personnel organization brought a variety of answers. Seventeen of the thirty-eight instructors reported that they used no board or failed to give any other method used. Eight used the sliding panel method, where names and jobs are placed on sliding panels, the lower one, when removed, changes the jobs for all. Three instructors used the rotating disc method with names and jobs on concentric discs which are moved to change personnel duties. Five informants indicated that they used the bulletin board as a means of dispensing with duties. Two used a card system so that a permanent record was kept, and two indicated that the instructor did the assigning of duties personnally. See TABLE X.

TABLE X

TYPE OF BOARD OR METHOD OF DISPENSING DUTIES

Type Used or Not Used	Frequency
None used	17
Duties placed on Bulletin Board	6
Filing Box with card Organization Chart	1
Rotating Discs	3
Jobs on one sheet, names on another, sheet moved	1
Names on sliding panels	8
Cards -- show satisfactory work	1

FINDINGS OF THE SURVEY

Summary. This survey was carried on, in most cases, with the writer getting information by using a combination of two methods. Either the inquiry form and the interviews method, or the inquiry form and visitation method. In a dozen instances the combination of the inquiry, the interview and visitation were used.

While making the survey many trends and conditions were observed, which will be given briefly in the following statements:

1. Personnel organizations are found more frequently in larger schools.

2. Personnel organizations are used more in woodwork

and general shop classes.

3. Percentage of pupils benefiting from personnel organizations vary from the extreme of having from one person to twenty percent participation, to seventy-five to one hundred percent participation.

4. In the majority of cases the instructor dominates, appoints, or approves election of personnel officers.

5. The purposes of personnel organization tend to be classified under four main divisions: (1) educational values; (2) shop organization; (3) teacher aid; and (4) care of the shop and equipment.

6. The majority of instructors gave "educational values" and "shop organization" purposes as chief aims of personnel organization.

7. Clean-up assignments and jobs were used more times in personnel organizations than were supervisory and foreman-ship assignments.

8. The show of some "merit" as a qualification of officers is sometimes used. The majority of cases show that no "merit" is necessary as a qualification.

9. Preference for one week term of office, one semester term of office, and the combination of the two, was evident. Generally, one semester for officials and one week for members doing clean-up work.

10. A standing committee on "safety" was the main

evidence of group work.

11. A few shop instructors supervised special functions and programs by appointing "temporary committees".

12. Seventeen of thirty-eight instructors, either indicated that they did not use a board for dispensing with personnel duties, or failed to report of such a system.

13. The "sliding-panel" board and the bulletin board were used more than other methods of dispensation of duties.

Recommendations. From the trends that were made evident through the survey a more definite program is needed in Oklahoma. The author has set up a program of the functions which should be carried out in industrial arts with personnel organizations.

The survey also showed that personnel organizations in the schools are in need of a more definite plan. The author recommends a pupil personnel plan which can be made to fit most situations and still carry out the functions necessary in a personnel organization similar to those used in industry.

CHAPTER V

SUMMARY AND RECOMMENDATIONS

It is desirable and proper after a study has been made to summarize the results and make recommendations. This has been done, (1) by giving a brief summary of industry and of industrial arts, (2) by recommending a program for industrial arts and a personnel organization for an industrial arts class, and (3) by recommending further studies.

SUMMARY

The summary will be brief. Statements of the general trends having direct effect upon personnel organizations in industrial arts will be reviewed.

Summary of Industry. In studying the development of labor in industry, from the middle ages to the present time, conditions, disputes, theories, and types of organizations were reviewed. All led to a definite program of personnel relations. This program had as its purpose, the creating of a better relationship between the employee and the employer. This condition has an effect on efficiency. The program is based on democratic ideas, with the workers having a voice in their government helping to formulate shop rules, discuss conditions, and by recommending improvements.

The functions of a personnel program in industry are

are generally divided into the following main divisions: employment; health and safety; education; research; service; and joint relations. In brief, everything is included that is not directly connected with the supervision of the man on the job.

Industrial Arts. In reviewing and surveying conditions in industrial arts, there seems to be a tendency for instructors to follow the same procedures and practices of industry. Industrial arts instructors are slow to make changes, as they generally go to books for their information. At the present time all industrial arts instructors seem to think of pupils as individuals, but do not give much consideration to them in a social sense.

Pupils have little or no voice in how their class organization is to be run. More committee work should be evident in the form of personnel organizations. A definite pupil personnel program should be formulated. Such a program could be taken from a similar program of industry and revised to fit an industrial arts situation.

RECOMMENDATIONS

By way of recommendation the writer has developed a plan of a personnel program and of a personnel organization for industrial arts that he believes will meet the qualifications expected by industry and by industrial arts.

A. A PERSONNEL PROGRAM FOR INDUSTRIAL ARTS

This personnel program, suggested by the writer, has been modified from a similar program in industry to fit the industrial arts situation, as revealed in this study. Such a program in the industrial arts classes must be, to some degree, simple and workable. The program includes the following main divisions: (1) Orientation of students; (2) Class records; (3) training and education; (4) health; (5) safety; (6) service work; and (7) maintenance of equipment and supplies.

Orientation of Students. The term "orientation" refers to the act of acquainting one with the existing situations. When the pupil enters the shop for the first time, he is naturally curious about the equipment, materials, and supplies. The change from the classroom to the shop makes him somewhat emotional. He does not know the principle on which the shop is operated, or what is expected of him. The pupil will probably ask himself the question--"How am I to fit into this program?"

Through a personnel program, orientation could be the job of one or more persons as well as the job of the instructor to see that the new pupil was properly enlightened about shop rules and procedures. The teacher must also take particular care, especially at the beginning of a semester, take care to

acquaint all with the shop practices, and proper instructions are given on uses of machines and tools, so that no accident will occur.

Class Records. Class records probably will include the following subdivisions: (1) class roll; (2) personnel records; (3) ratings; and (4) rewards.

The keeping of the "class roll" is very important to the school system. Accuracy on the part of the pupil who probably acts as the secretary of the class is very important. Pupils can be taught to understand what responsibility is and can receive very valuable experience while obtaining this instruction.

Personnel records are important to a personnel organization as it offers a check on those cooperating with their fellow classmates, the offices held, and other data.

"Ratings" of every student should be made in order to have a basis for the selection of staff foremen who should be elected on their merits. Ratings would also form a basis for the offering of rewards.

"Rewards" are incentives offered for good attendance and cooperation. This can be carried out through the publishing of names in school publications, on bulletin boards, and by granting special privileges.

Training and Education. Under training and education

would come such jobs as: (1) job instruction; (2) foreman training; and (3) general industrial information.

The advisability of having students act as instructors is doubtful. However, some few pupils might be found that could act in that capacity. Generally, these jobs will have to be done by the instructor, with the pupils supplementing by acting as inspectors, assisting in routine instruction, giving reports, and by offering constructive criticism.

Health. The problem of health can satisfactorily be taken care of, by a personnel organization, by dividing the duties among several members. The duties would probably be classified under two headings: (1) sanitation, ventilation and light; and (2) first aid and instruction.

Sanitation, light and ventilation requirements, can be accomplished by the appointment of inspectors having definite duties to perform regarding health. See Chapter V (19, pages 95-123) and read Struck's views on shop organization of routine duties. Health standards should be adopted.

First-aid instruction should be given, and definite pupils should be held responsible for aiding the instructor in administering first-aid, and records kept of accidents in the shop.

Safety. Safety as a factor in a personnel program is one of most importance. Safety as a function in the shop can

be accomplished by the following three methods: (1) safety education; (2) safety inspection; and (3) posters.

Safety work can be carried out very forcefully, by having safety engineers and safety committees, who should make daily inspections. Training in safety education while in school tends to make for fewer accidents in industry.

Service Work. Service work can be made a very helpful division of the personnel program, as it has no limit. The following are service features which may be used in industrial arts shops: (1) guides to show visitors about the shop; (2) orientation of new students; (3) care for exhibits and displays; (4) publicity in school paper; (5) read notices from the principal's office; (6) secure material for the bulletin boards; (7) bring in magazines and drawings; (8) secure subscriptions for 'special' magazine offers; and (9) report to the instructor on any entertainment, motion picture, or similar aid which will help in the instruction of the class.

Such work adds much to the success of the class. More initiative and contentment exists when service work prevails.

Maintenance of Equipment and Supplies. Maintenance of equipment and supplies offers rich ground for the training that each pupil should have. Acquaintance with this division

of personnel work offers training in: (1) the issuance of hardware; (2) the issuance of lumber or other materials; (3) the issueing and checking of tools; (4) maintenance of benches or tables and (5) the maintenance and care of tools and machines.

The real importance lies in the fact that many individuals, after they have purchased an article can not take care of it. An acquaintance with this department will at least offer help and stimulate some thought toward the maintaining of the equipment that pupils will have later on, as well as taking care of school property. Personnel department officers can aid the instructor much in caring for such equipment that he is supervising.

To perform these functions a definite personnel organization is needed. Without a definite system of organization, management, records, and democratic control the training offered will be narrow and routine.

B. ASSOCIATED PERSONNEL ORGANIZATION FOR INDUSTRIAL ARTS CLASSES

In suggesting a personnel organization for industrial arts, the merits of a number of organizations, and programs were considered. The writers interpretation of this study will be given in the following paragraphs in the form of a personnel organization for industrial arts classes.

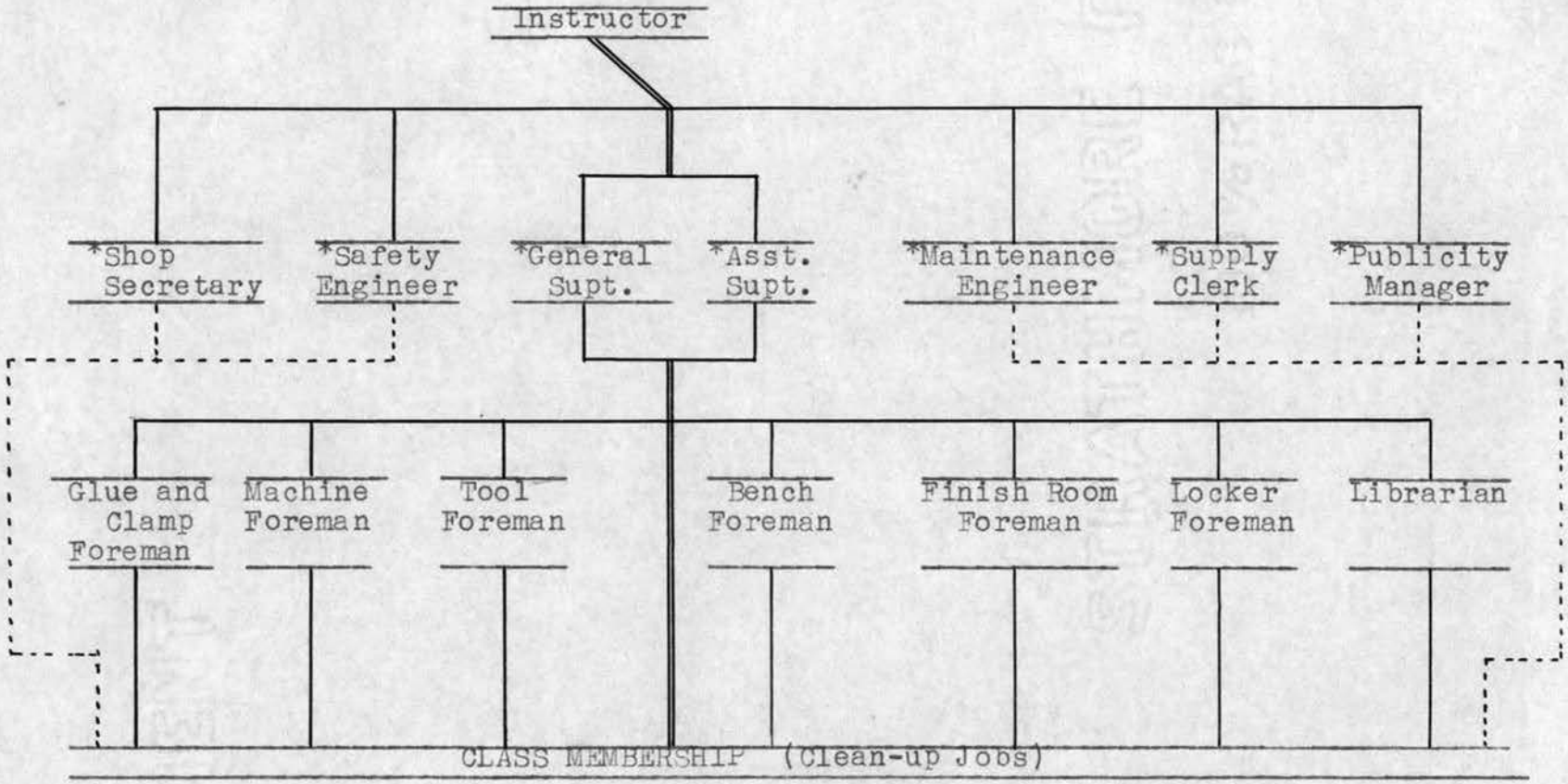
The proposed organization is designed for a woodwork shop, but can be adapted to other shop programs. Woodwork classes are similar to general-shops due to the units used in a general woodwork shop.

Organization Chart. In order that the reader can understand more clearly where the responsibility rests, and the line of authority, an organization chart is necessary.

The Organization chart, Figure 7, shows the instructor as the general manager. In authority, under the instructor, is a staff, who have charge of various functions. Their authority reaches to the class, generally through the superintendent. Next in authority are the foremen of departments, or units of the shop, who have authority over the rest of the class in supervising clean-up duties. They are responsible to the superintendent.

Staff Officers. The following staff officers are appointed by the instructor the first week of school each semester, to serve and hold office for a period of six weeks:

1. General Superintendent
2. Assistant Superintendent
3. Shop Secretary
4. Safety Engineer
5. Maintenance Engineer
6. Supply Clerk
7. Publicity Manager



* Staff Members

Figure 7. Organization Chart for Proposed Personnel Organization.

After the first six weeks an election is held and the staff members will be elected by the students. The general superintendent will be elected for the remainder of the semester. The election is held in an open meeting of the class. A majority vote will be the deciding factor. (See qualifications)

The staff, with the assistance of the instructor will discuss matters pertaining to shop rules, personnel grade point record system, industrial information assignments, and class operation assignments.

General supervision of the class is carried on by the general superintendent and the assistant superintendent. Working under the direction of the staff and the instructor they attend to the routine details ofclass management. They also supervise the clean-up period through the various foremen appointed by them, or by some means of rotation or by appointment. It is necessary that the superintendent have an assistant so that he will not have to spend the whole class period doing personnel work.

The shop secretary spends one period a week in keeping class records up to date. During the other periods he may resume his regular class work. (If the instructor has a student helper, this is the logical office to place him in.)

The safety engineer works under direct supervision of the instructor. He is responsible for the observance of the

health and safety rules of the shop by all members.

The maintenance engineer is responsible to the instructor for the maintenance of tools and equipment of the shop. He will have the supervision of the maintenance of said equipment.

The supply clerk will have supervision of the issuance of all materials and supplies. He shall see that correct records are kept of everything issued, according to shop regulations. (This is an office which could be given to a second student helper.)

The publicity manager will carry out the duties of bring the activities of the class to the attention of the student body of the school. He reports directly to the instructor.

Detailed Duties of Staff Officers.

1. General Superintendent:
    a. General supervision over all foremen and workers in the class.
    b. Make out or rotate a new clean-up schedule each week.
    c. Supervise the clean-up period through the foremen.
    d. Appoint temporary foremen in place of foremen who are absent.
    e. Hold regular and special meetings, with

consent of instructor, for the purpose of dispensing with class business.

f. Act as chairman at staff meetings.

g. Confer with the instructor on matters pertaining to the welfare of the class.

h. Inspect work of, and issue grades for foremen and class-membership.

i. Dismiss class on approval from the instructor.

2. Assistant Superintendent:

a. Assist the general superintendent during the clean-up period and during times when needed.

b. Assist the instructor in preparing for demonstrations.

c. Take over the duties of the general superintendent when he is absent.

3. Shop Secretary:

a. Keep class records. (See instructor) File in proper files.

b. Take account of the attendance, report each day to the instructor, before recording final record in books.

c. Keep clean-up records, staff and foremenship records, and other records filed up to date.

d. Collect notebooks, reports, drawings, and other materials as they come due.

4. Safety Engineer:

a. See that the shop is properly lighted, with shades adjusted, and windows regulated properly.

b. See that all pupils have a work-station or bench assigned to them each day.

c. Learn fire-drill regulations and organize fire-drill routine.

d. Instruct and demonstrate proper methods of treatment for cuts, bruises, burns, scratches, and splinters.

e. Assist in first-aid treatment.

f. Explain safety rules to new students.

g. Be on the alert for dangerous work habits or careless workers.

h. Report "horseplay" to the instructor.

i. Report all accidents to the instructor, immediately. See that all accident reports are made properly.

j. Investigate all accidents to determine cause.

k. Inspect all first-aid supplies and report needs to the instructor.

l. See that pupils do not lift heavy objects unassisted.

m. See that all pupils wear aprons, have sleeves rolled up, and have neckties tucked in when necessary.

n. See that new safety posters are handed to the publicity manager to be posted by him.

o. Inspect tools weekly to see that no defective tools are used. Report to maintenance engineer.

p. Inspect rooms and lockers for discarded rags and waste, which might cause a fire.

q. Check to see that the metal waste can is emptied once a day. Report to the finish-room foreman, if not.

r. Confer with the instructor often.

5. Maintenance Engineer:

a. Inspect all "individual tools" and report all that need sharpening to the instructor. He will see that the individuals responsible, will take care of them.

b. Supervise the sharpening of all shop tools, used by all. Report the need for sharpening of tools used by all students to the instructor, who will give approval and assign students to help sharpen them.

c. Assist instructor with the adjustment of machines and equipment.

d. Notify instructor of any broken equipment.

6. Publicity Manager:
   a. Read notices from the office of the principal.
   b. Prepare and display on the bulletin board any material of interest to the class.
   c. Confer with the instructor and write a short article to be published in each issue of the school publication.
   d. Maintain a live exhibit of class work in show-case or on the bulletin boards.
   e. Act as a reception committee to greet any visitors at any time the class is in the shop.
   f. Select and train guides to show visitors through the shop on special occasions.

7. Supply Clerk:
   a. Supervise the issuance of all materials, lumber, hardware, finishes, and other material to the pupils. (See instructor)
   b. Provide the instructor with a list of materials and supplies needed, weekly.
   c. See that the stock rooms are kept as orderly as possible.

d. Keep record of materials and supplies as issued. Turn in same to the instructor, daily.

e. Assist the instructor in taking the inventory.

f. See that waste of supplies is kept at a minimum.

Detailed Duties of Clean-up Foremen:

1. Machine Foreman:

   a. See that each machine is cleaned and accessories are stored in proper places, during clean-up period.

   b. Help the general superintendent grade the class members by reporting unsatisfactory clean-up men under your supervision to him.

   c. Report misuse of machines to the instructor.

2. Glue and Clamp Foreman:

   a. See that glue is heated whenever necessary. Keep gas flame or electric pot adjusted properly.

   b. See that sufficient water is in the double boiler at all times.

   c. See that clean-up men do satisfactory jobs. If not, report them to the general superintendent.

d. Check to see if the fire is turned out at the end of the period, or when not in use.

e. Issue clamps. If there are not sufficient clamps, confer with the instructor before removing clamps from any projects.

3. Bench Foremen:

a. Supervise the clearance of all benches in the shop.

b. Report all members failing to cooperate to the general superintendent.

c. See that all pieces of large scrap material are put into the scrap box.

d. See that all drawers are shut and that vises are closed.

4. Finish Room Foreman:

a. Supervise all locker storage.

b. See that projects are stored properly.

c. See that all storing is done in a neat manner.

d. Report all untidiness to the general superintendent.

5. Librarian:

a. Check out books, blueprints, and informational material, according to shop rules.

b. See that all books, and materials are

returned during the clean-up period.

c. Report any irregularities to the general superintendent.

Other Shop Duties: Clean-up duties should be given to the remainder of the class who are not staff officials or foremen.

Each member is responsible to one of the foremen, depending on the job he has.

Jobs which might be included could be the checking or cleaning of the following equipment or part of the shop: (1) shaper; (2) surfacer; (3) jointer; (4) circular saw; (5) sanding machine; (6) band saw; (7) drill press; (8) grinders; (9) lathes; (10) various duties in the finish room; (11) various tool cabinets; (12) clamp racks; (13) special benches; (14) window ledges; (15) help in lumber room; and (16) special jobs.

General Superintendent Record Chart. One of the duties of the general superintendent is to grade the foremen and clean-up members of the class. This should be done daily at the latter part of the period.

The grading of an individual is not difficult as only two grades are given, the (U) and the (S). The (U) is given when the superintendent thinks the work of a foreman or any member of the class is unsatisfactory in clean-up jobs.

Failure to perform a detailed duty, after once being corrected, shall be considered unsatisfactory in efficiency. Cooperation can be graded in the same manner an may be recommended by the Staff Committee.

To simplify the grading the superintendent may keep records of the (U's) and consider the others as satisfactory, (S).

TABLE XI is an example of the Superintendent Record Chart. This chart may be used as a basis for offering special privileges, rewards, and special mention. Absenses, tardiness, and misdemeanors, when inexcusable, could be counted as a (U) in cooperation. This chart may be the base for a pupil qualifying for a personnel office (TABLE XI)

The Instructor's Record Chart. In order that the record may be kept permanently by the instructor a record chart, similar to the general superintendent's record, is used. The instructor grades the staff daily for efficiency and also for cooperation. The basis can be made simple with the (U) and (S) system, or may be more inclusive with some other system. Such a chart seems to stimulate students toward being better officials.

Advantages of this Program. This plan of pupil-personnel organization is suggested to help solve the problem of managing large classes by reducing the amount of personal

TABLE XI

GENERAL SUPERINTENDENT'S RECORD CHART

Woodwork_____ Time Period_____to_____
Class

General Superintendent_____
Name

Clean-up Jobs		Mon.	Tues.	Wed.	Thur.	Fri.	Ave.
Machine Foreman	Coop.						
Name_____	Effi.						
Tool Foreman	Coop.						
Name_____	Effi.						
Bench Foreman	Coop.						
Name_____	Effi.						
Etc.	Etc.						

All foremen and Clean-up jobs are listed on this chart. Graded by the superintendent with a (U) or an (S). For ease in grading the (S's) may be omitted.

attention of the part of the instructor to shop routine details and thus allows him to devote more time to instruction, which is his job.

It is to help increase the value of industrial arts, educationally, developing individuals through group activity. It provides for practice in directing, supervising, and aiding in the supervision of others. It acquaints the pupil with

the type of organization familiar to industrial plant management.

It tends to develop leadership, followership, and cooperation in the pupil. The boys learn to respect authority and understanding of the problems of the employee and the employer through activity in a life-like situation. Surely this plan is of more value than the teacher dominated situation.

Suggested Principles of Control for a Personnel Organization. In organizing and operating a personnel organization there are various principles of control to keep in mind. They will be discussed under the topics of: Educational principles; organization principles; principles regarding the care of the shop; and principles of control regarding teacher aid.

1. Educational:
    a. Always, as a teacher, keep in mind that the boy is being taught and guided, not the subject matter.
    b. Educational goals are toward a social-economic goal that teaches for life, through experiences in life-like situations in the school shop.
2. Organization:

a. Make the organization more efficient by the checking of jobs being done. Check each day.

b. See that the organization familiarizes the students with industrial conditions.

c. See that the officials are qualified, at least by being punctual.

3. Care of Shop and Equipment:

a. Use orderly methods of dispensing, checking, maintenance, and storing shop equipment and projects.

b. Keep a permanent record of all work done.

c. See that jobs are not "rotated" too frequently.

4. Teacher Aid:

a. Approve all keeper of records.

b. Use assistance in teaching instruction, sparingly.

c. Make the student's jobs, routine in nature, if grades depend on them.

PROBLEMS SUGGESTED FOR FURTHER STUDY

It was realized at the beginning of the study that all problems concerning the personnel administration work could not be covered in a single study. The writer regrets that he could not cover the subject more thoroughly. As the study

proceded many problems suggested themselves. The more important problems are suggested in the following paragraphs.

Personnel Records and Forms. All persons realize the importance of records. Without records there would not be large successful business corporations that we have today. Without records the world would not progress.

Personnel organizations in industry need and use extensive personnel records and forms. Forms and records are needed for all the functions of personnel programs; i.e., (1) employment, (2) health and safety, (3) education, (4) research, (5) service features, and (6) joint relations.

If industrial arts is to carry out the personnel program in an efficient manner, then a similar set of functions with adequate records and forms should be developed. This would make an excellent study.

Experimental Basis for Determining the Value of Personnel Organizations. This would make a desirable thesis topic because of its need at the present time. With personnel organizations in their formative stage it is of much importance that the value of personnel organizations be determined.

Experimentation offers a basis for determining the values by personal investigation. Such an investigation would be of use to every shop in orienting new shop programs.

Methods of Evaluating Desirable Outcomes of a Personnel Organization. The writer has suggested some functions of personnel organizations in industrial arts classes which he modified from a similar program in industry. Whether these functions would create desirable outcomes could not be determined until some method or scale is established.

A study directed toward such an aim would give credit to the person undertaking it. The study would offer the writer an opportunity to "explore" in the field of sicialized instruction, of which F. Theodore Struck has used as the basic philosophy in his book, Creative Teaching.

These problems just mentioned for possible thesis topics are only few in number in comparison to other analyses which could be made in the field of personnel administration in industrial arts. Continued improvements are both desirable and inevitable.

Contained in this study are current ideas on personnel organizations in industrial arts as they appear and should be of value within itself. It is only hoped that this thesis will not be final, but that it will stimulate others to attempt further studies.

APPENDIX A

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APPENDIX B

May 23, 1940

Dear Fellow Teacher:

I have chosen your shop as one of the few to aid me in my study on Personnel Organizations in Industrial Arts Classes.

The purposes of the study are: (1) to review the historical development of personnel programs in industry; (2) to review the historical development of personnel organizations in industry and in industrial arts; (3) to study and compare organizations used in various shops in Oklahoma and purposes for which each are used, and (4) to suggest personnel organizations for the more common industrial arts courses.

The results of this study should be of great value to teachers of industrial arts classes. Your cooperation in supplying the information requested will be greatly appreciated. Please return the inquiry form in the enclosed, self-addressed, stamped envelope as soon as possible.

Sincerely yours,

Leon W. Ames

PERSONNEL ORGANIZATIONS IN INDUSTRIAL ARTS CLASSES

By Leon W. Ames
Cushing, Oklahoma

Please fill in the following blanks:
Do you use a personnel organization in your shopwork or drawing classes? _____ If so, what percentage of pupils in each class hold personnel offices? _____

What is the chief purpose of having a personnel organization? (Please explain fully.)

_____

_____

_____

_____

How are staff members of the personnel organization chosen? (Check one or more answers.)

All members are appointed by the teacher _____
All are elected by the class _____
Some are elected by the class, some appointed _____
Rotation according to alphabetical or other order _____
Rotation according to accomplishment and ability in performing classwork _____
Rotation according to ability in handling people _____
Other methods used:

_____

_____

What is the term of office of members of your personnel? _____

_____

_____

Do you have any standing committees? _____ If so, what are their aims and purposes? _____

_____

_____

Do you have any temporary committees? _____ If so, what are their aims and purposes? _____

_____

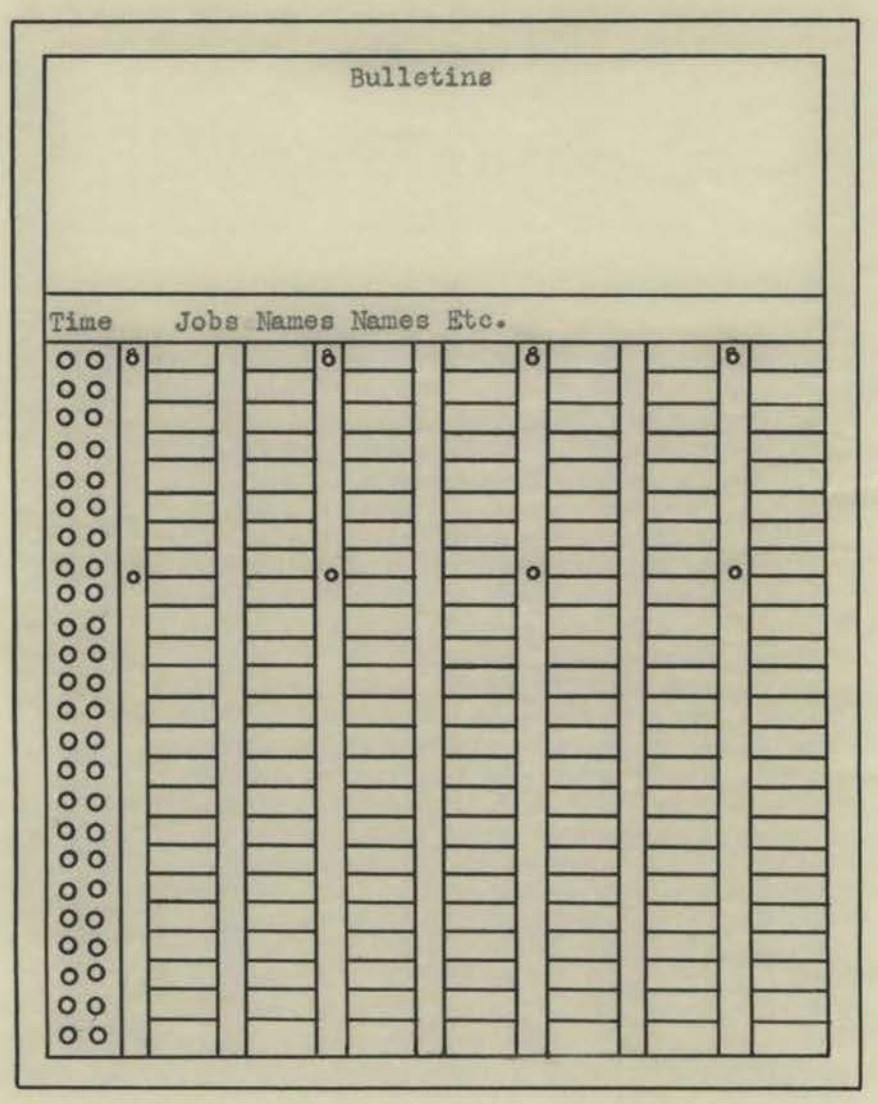
_____

If you use a personnel system, what type board do you use? _____
(Please use the space below for a sketch or diagram of board used with instructions for use.)

INQUIRY FORM

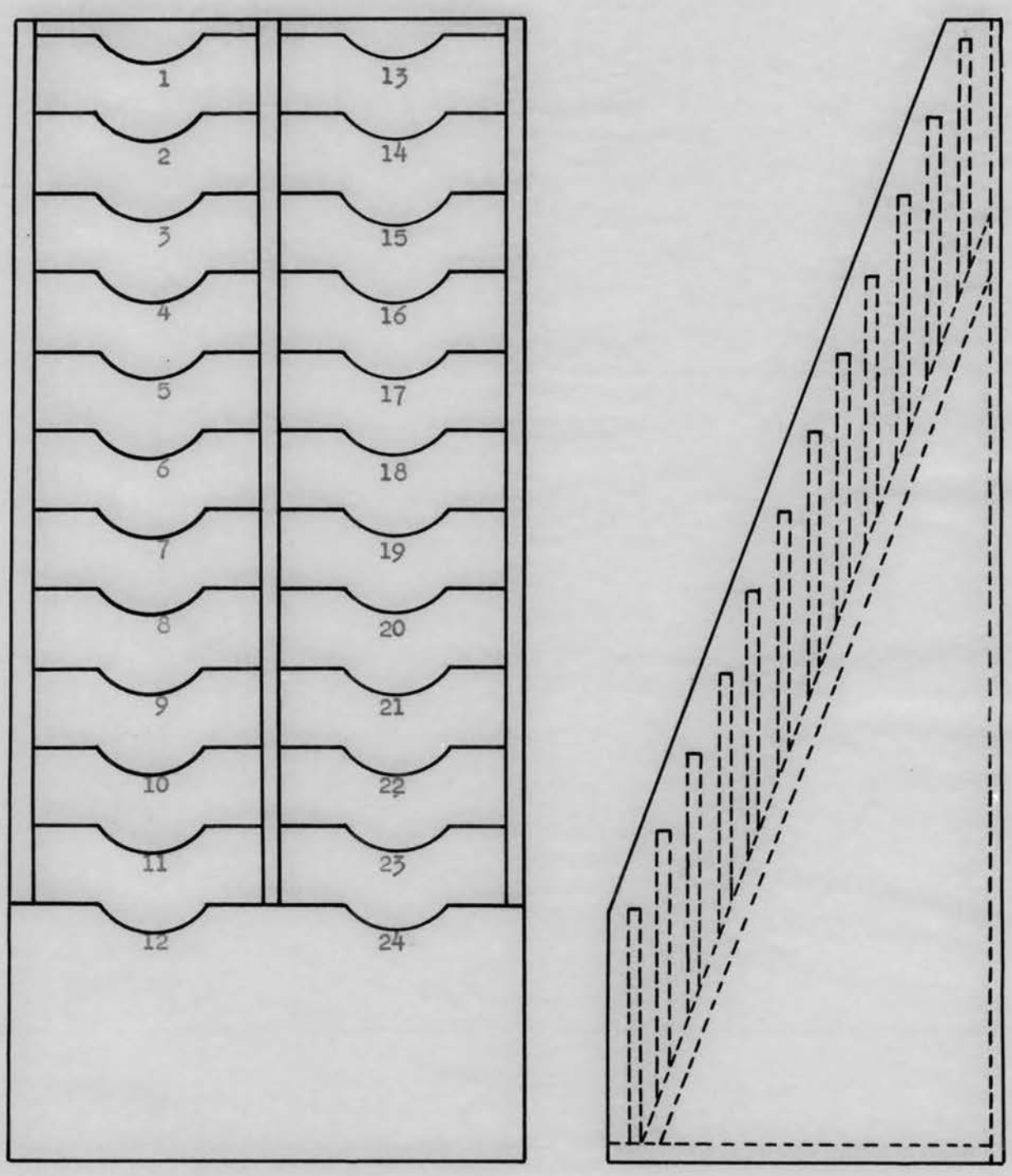
Please check the grade level and the shop opposite each job in which students participate. The grade levels are indicated as follows: 7th grade-7; 8th grade-8; 9th grade-9; etc. Type shops are abbreviated as follows: Woodwork-WW; Metal-M; Printing-Pr; Mechanical Drawing-MD; General Shop-GS; Electricity-E. Add other personal assignments in blank spaces.

Type jobs for which personnel organizations are used.	Grade Levels						Type Shop					
	7	8	9	10	11	12	WW	M	Pr	MD	GS	E
Check class roll												
Issue hardware												
Issue lumber												
Issue finishes												
Issue and check tools												
Care for ventilation												
Check tool boards												
Maintenance of benches												
Maintenance of floors												
Maintenance of tools												
Administer first-aid												
Keep all class records												
To keep time (Notify student to clean up)												
Read notices from principal's office												
Take care of publicity in school paper												
Prepare and display on bulletin board material of interest												
Guides to show visitors about the shop												
Orient new students												
Report 'horse-play' to the instructor												
Take care of shop library												
Storage of clamps												
Care for the glue-pot												
Care for locker storage												
Wash sinks and drinking fountains												
Superintendents of classes												
Custodians of keys												
Assist in demonstrations												
Give demonstrations												
Care for unfinished projects												
Foreman of shop areas												
Safety education												
Health education												
Care of exhibits and displays												
Shop superintendent												



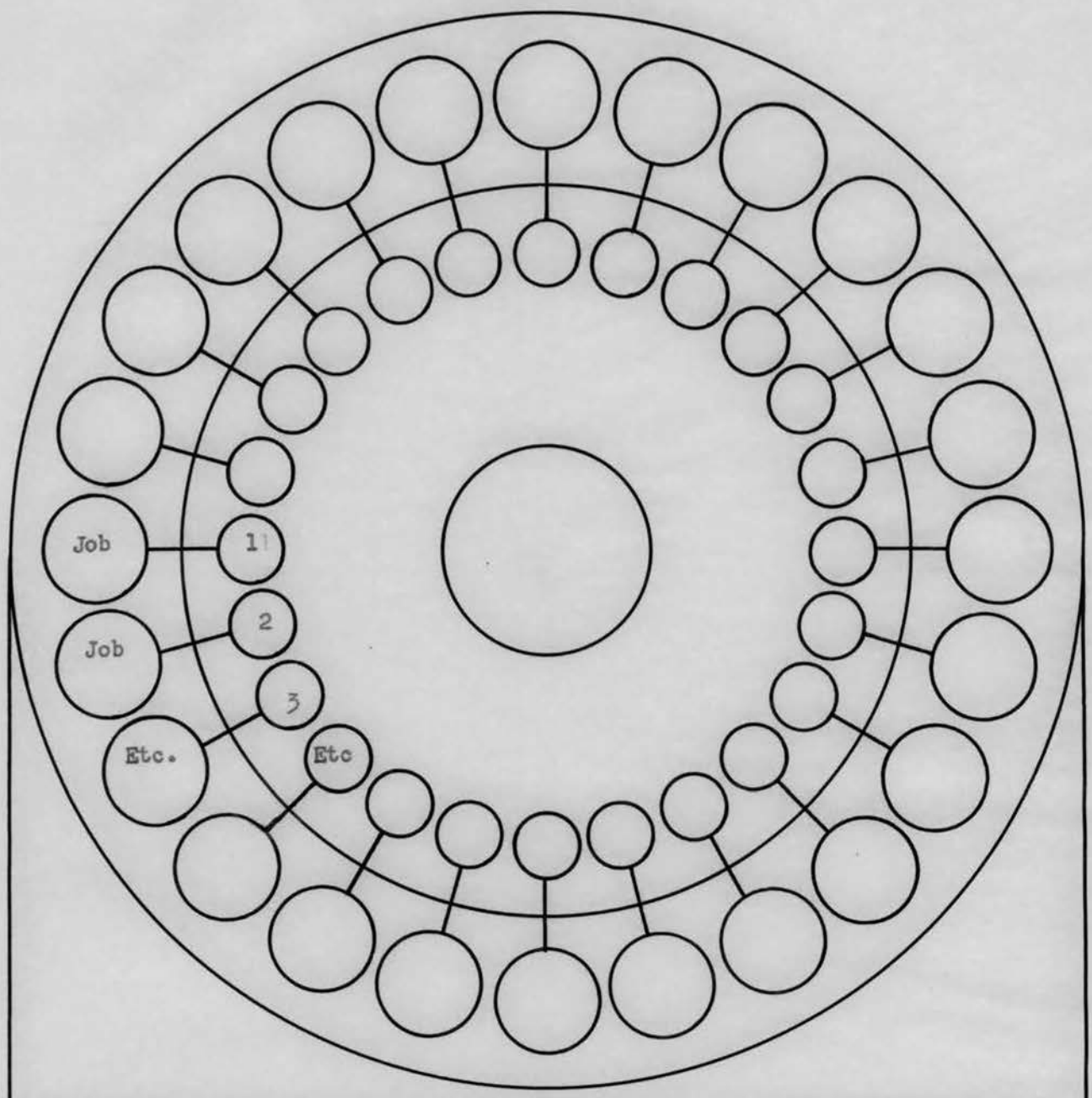
Sliding Panel

(Remove bottom panel and change all jobs.)



Filing Box

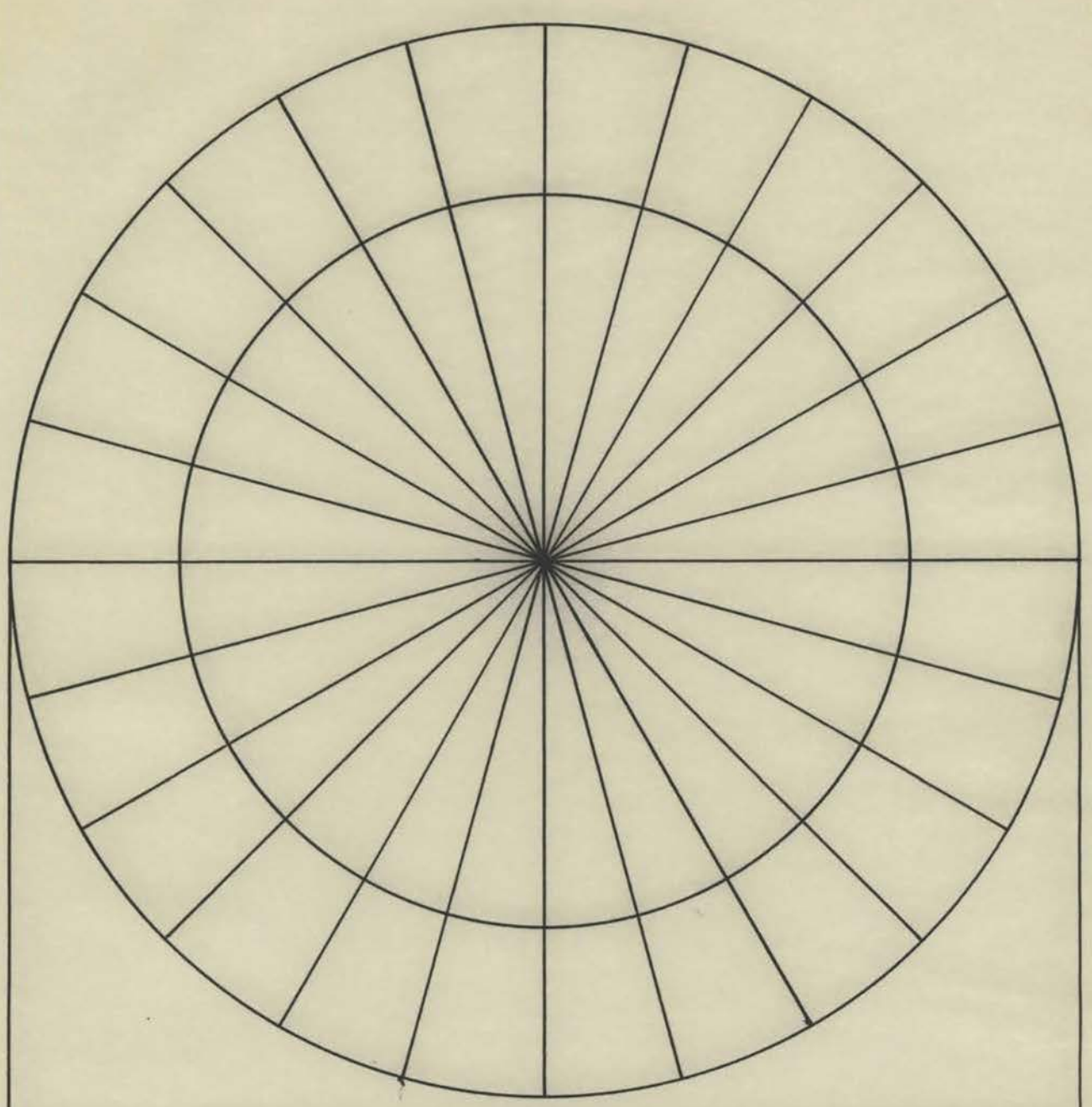
(Used with a card. Information on bulletin board.)



Rotating Disc

(Jobs in outside circles. Numbers of students on inside circles.)

1	Adames, Joe	7			
2	Blair, Eugene	8			
3.	Carter, Gene				
4					
5					
6					



Rotating Discs
(Names on one disc. Jobs on the other. Rotate and change.)

Typist:

Lorelei Childers

Stillwater, Oklahoma