

ABSTRACT OF THESIS

THE ORGANIZATION AND CONTENT
OF AN ADJUSTMENT SERVICE
FOR JUNIOR EMPLOYMENT IN THE SEMI-SKILLED
MECHANICAL OCCUPATIONS
FOR MONROE, MICHIGAN

Submitted by
Carl E. Frankson

In partial fulfillment of the requirements
for the Degree of Master of Science
Colorado State College
of
Agriculture and Mechanic Arts
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Monroe, Michigan, a beautiful city of twenty thousand inhabitants is located on the shores of Lake Erie in the south-eastern part of Michigan, and is considered to be an important manufacturing city.

The Chamber of Commerce of Monroe states that there are 4,000 employed in the local factories most of whom are employed in the semi-skilled occupations. The 1930 census shows that there were about 6,000,000 skilled and about 8,000,000 semi-skilled workers in the United States. (13)

If approximately one-half of the people who work in Monroe are engaged in the semi-skilled occupations, it appears that the youth who are about to enter these occupations should be assisted by the organization of an adjustment service for junior employment in the semi-skilled mechanical occupations. This service, it seems, would help the youth to become better trained to perform his work more efficiently, to become more adaptable, and more versatile. With this training it would be easier to secure and hold semi-skilled jobs in these occupations.

A study of the available research pertaining to semi-skilled jobs was made. It was found that a great need existed for training beginning workers in these occupations. Keopke, (13) who made a study of

manufacturing plants in Minnesota in 1934 found that factory workers should be trained in dexterity.

The Essex County Vocational School of New Jersey (20) found that semi-skilled workers did considerable moving from one type of work to another.

Research literature revealed that industry does practically nothing in developing semi-skilled workers to do more than one specialized job or process.

It was found that trips through industrial plants are recommended as a background for pupils so that they may have a better understanding of the duties of the semi-skilled worker.

A survey of the semi-skilled mechanical occupations of Monroe was planned. This survey was based upon the information revealed by the review of literature. The purpose of the survey was to determine what qualifications the industries of Monroe required of their semi-skilled workers.

A list of the firms employing workers in the mechanical occupations was secured through the Monroe Chamber of Commerce, the telephone directory, and the City directory.

The collection of data required specific methods, materials, and procedure. After careful consideration of the methods which could be used to collect the data, the personal information method was selected

as the most reliable.

Arrangements to meet the employers were made at least one day previous to visitations. These arrangements whenever possible were made through outside sources such as the Chamber of Commerce, or business men. The interview was usually conducted in the employer's office. The first step was to familiarize the employer with the purpose and need for the study. After the purpose and need for the study had been presented, he was shown a check sheet and "Should Know--Should Do" sheet. The check sheet consists of sixteen main topics with subdivisions under each. These divisions deal with physical, mental, and educational requirements, working conditions, and the like. Space was provided for the employer to check the items which he required to perform semi-skilled jobs. One check sheet was used for each semi-skilled job.

The "Should Know--Should Do" sheet was divided into two columns. In one was recorded the occupational information which the semi-skilled worker should have and in the other column was recorded the duties of the semi-skilled worker. These sheets were used to record the valuable information secured from the employer. This part of the interview completed, a tour of the premises was made with either the employer or a guide designated by him. Notes were taken as the employer

explained the various jobs. A second visit was made to each industry. The check sheet and "Should Know--Should Do" sheets were again placed in the hands of the employer. As each semi-skilled job was considered, he gave the answers and they were recorded. The data were then compiled.

The data revealed that the semi-skilled jobs found in one industry had about the same pattern of duties and responsibilities as the semi-skilled jobs found in another industry of the same nature. All industries which had jobs that followed the same semi-skilled patterns were grouped together into occupational clusters. The ten groupings or occupational clusters are: automotive; baking and flour milling; building and constructional; dairy, ice cream, and bottling; foundry; lumber, furniture, upholstering, pattern making, office equipment, and roofing; laundry; paper; printing; and utilities. A Master sheet was then compiled showing the different payroll jobs in each occupational cluster, and the names of the industries and the number of semi-skilled workers that each employed.

Data taken from the "Should Know--Should Do" sheet were compiled into master sheets for each occupational cluster. One master sheet contained the occupational information needed by the semi-skilled worker; the other master sheet contained the duties of the

semi-skilled worker.

All of the different payroll jobs were listed alphabetically. To the right of these jobs, columns were made in which were recorded the data taken from the check sheets.

The data taken from the "Should Know--Should Do" master sheets are used as a basis for a program to meet the needs of the pupils in preparing them for entry into the semi-skilled mechanical occupations.

The compilation of data taken from the "Should Know--Should Do" master sheets revealed that there were units of related instruction and occupational jobs which could not be taught in the classroom. These findings necessitated the plan for a cooperative training program for beginning workers in the semi-skilled mechanical occupations of Monroe. It is recommended that the city superintendent contact leaders of these mechanical occupations and inaugurate this training program.

Ten excursions are to be taken to industrial plants when school convenes in September. Each visit is to be followed by one day of discussion. The purpose of these excursions is to familiarize the pupils with the duties of the semi-skilled workers in order that they will be better prepared to choose the occupational cluster in which they desire training.

Each pupil is given a job analysis sheet and an exploratory sheet before going on a visit. The job analysis sheet contains items about working conditions and the qualifications required of a semi-skilled worker in the industry to be visited. The exploratory sheet contains the names of semi-skilled jobs which they can observe being performed. Under each job name is a list of questions pertaining to the job. The pupils are to obtain answers to these questions and are to mark the check sheets during the visit.

When these excursions have been taken and discussed, pupils are to fill in complete information on all items on the two sheets. The pupils' attention is to be directed toward the purpose of these excursions from time to time. This will emphasize for each boy the need of considering information that is gained in terms of possible vocational choices. As the period of visitation draws to a close every pupil is to make a first, second, and third choice of the occupational clusters in which he desires training. The pupils who choose the same occupational cluster proceed to elect a foreman as their leader. These foremen will assist the instructor in giving out tools, materials and supplies.

Instruction sheets are then distributed to the pupils. When they think that they understand these

instructions, they are to report to the instructor. The instructor then checks each pupil to make certain that he is ready to begin training in the duties and information of his chosen occupational cluster. If the pupils are found to be ready to begin work, they are given a related occupational information sheet and a list of the jobs to be performed.

The foreman of each group then proceeds to help these pupils to secure the necessary materials, tools and supplies needed to perform this job. They then begin their work. The instructor will give individual help passing from one occupational cluster to another. When the class procedure is well organized and the pupils of an occupational cluster have performed the first job or two, they are to be checked by the instructor. If it is found that the work has become distasteful to a pupil because he lacks sufficient ability, proper eyesight or because of some other reason over which he has no control, he is permitted to change to the occupational cluster of his second choice. If, however, his interest has grown in this occupational cluster he continues his work.

As soon as most of the pupils of an occupational cluster have been given the first exploratory check, they are to be called together by the instructor and informed about a film pertaining to their occupation-

al cluster. The foreman is placed in charge of his group. They then proceed to the projection room where the film is shown. After they have seen the film, they return to the classroom where they write a summary of the film. They now continue their work in the classroom.

Each pupil may progress as rapidly as he is able. When he has completed the work in the field of his choice, he notifies the foreman who in turn informs the instructor. The pupil is then given a final check. If he is found to have fulfilled his obligations satisfactorily, he is permitted to begin work in the occupational cluster of his second choice. The more occupational clusters a pupil can complete, the more versatile will he become.

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T H E S I S

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OF

AGRICULTURE AND MECHANIC ARTS

August 2, 1940

I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY
SUPERVISION BY CARL E. FRANKSON
ENTITLED ORGANIZATION OF ADJUSTMENT SERVICE FOR
SEMI-SKILLED MECHANICAL OCCUPATIONS

BE ACCEPTED AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE
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MAJORING IN INDUSTRIAL ARTS

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LIST OF TABLES

Table	Page
1. A JOB ANALYSIS OF MANUFACTURING PLANTS IN MINNESOTA BY KOEPKE	16
2. SEMI-SKILLED MECHANICAL OCCUPATIONS IN MONROE, MICHIGAN	30
3. OCCUPATIONAL CLUSTERS IN MONROE, MICHIGAN	31
4. SEMI-SKILLED PAYROLL JOBS IN MONROE, MICHIGAN	34
5. MASTER TABLE FOR AUTOMOTIVE INDUSTRIES OF MONROE, MICHIGAN	38
6. MASTER TABLE FOR BAKING AND FLOUR MILL- ING INDUSTRIES OF MONROE, MICHIGAN	39
7. MASTER TABLE FOR BUILDING AND CONSTRUC- TION INDUSTRIES OF MONROE, MICHIGAN	40
8. MASTER TABLE FOR DAIRY, ICE CREAM, AND BOTTLING INDUSTRIES OF MONROE, MICHIGAN	41
9. MASTER TABLE FOR FOUNDRY INDUSTRIES OF MONROE, MICHIGAN	42
10. MASTER TABLE FOR LUMBER, FURNITURE, UP- HOLSTERING, PATTERN MAKING, OFFICE EQUIPMENT AND ROOFING INDUSTRIES OF MONROE, MICHIGAN	43
11. MASTER TABLE FOR LAUNDRY INDUSTRIES OF MONROE, MICHIGAN	45
12. MASTER TABLE FOR PAPER INDUSTRIES OF MONROE, MICHIGAN	46
13. MASTER TABLE FOR PRINTING INDUSTRIES OF MONROE, MICHIGAN	47

Table	Page
14. MASTER JOBS FOR UTILITY INDUSTRIES OF MONROE, MICHIGAN	48
15. MENTAL QUALIFICATIONS OF SEMI-SKILLED WORKERS AND EMPLOYMENT CONDITIONS IN MONROE, MICHIGAN	61
16. WORKING CONDITIONS OF SEMI-SKILLED WORKERS IN MONROE, MICHIGAN	62
17. GRADE OF INTELLIGENCE AND TURNOVER OF SEMI-SKILLED WORKERS IN MONROE, MICHIGAN	63
18. TECHNICAL KNOWLEDGE REQUIRED OF SEMI- SKILLED WORKERS IN MONROE, MICHIGAN	64
19. PHYSICAL REQUIREMENTS OF SEMI-SKILLED WORKERS IN MONROE, MICHIGAN	65
20. VERSATILITY REQUIRED OF SEMI-SKILLED WORKERS IN MONROE, MICHIGAN	66
21. PERSONAL REQUIREMENTS OF SEMI-SKILLED WORKERS IN MONROE, MICHIGAN	67
22. EMOTIONAL REQUIREMENTS OF SEMI-SKILLED WORKERS IN MONROE, MICHIGAN	68
23. EDUCATIONAL REQUIREMENTS OF SEMI- SKILLED WORKERS IN MONROE, MICHIGAN	69
24. GROUP DEMONSTRATIONS TO BE GIVEN BY INSTRUCTORS	88
25. A LIST OF SUGGESTED FILMS TO BE SHOWN AS A SUPPLEMENT TO INSTRUCTION IN EACH OCCUPATIONAL CLUSTER	90

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION.	8
II. REVIEW OF LITERATURE.	13
III. MATERIALS AND METHODS.	22
IV. RESULTS OF FINDINGS.	29
The number and names of semi-skilled mechanical occupations in Monroe, Michigan.	29
The number of different kinds of pay- roll jobs and the number of employees in each.	34
The permanency or seasonality of these payroll jobs.	48
Wages now being paid semi-skilled workers.	50
Turn over in semi-skilled jobs.	52
Technical knowledge required of semi- skilled workers.	52
Physical requirements of semi-skilled workers.	54
Mental requirements of semi-skilled workers.	58
Extent of versatility of semi-skilled workers.	59
Emotional stability of semi-skilled workers.	60
V. A PROGRAM FOR THE PREPARATION OF BEGINNING SEMI-SKILLED WORKERS IN MONROE, MICHIGAN.	70

Arrangement of jobs into a learning sequence	70
A cooperative training program pro- posal for beginning semi-skilled workers.....	71
Industrial excursions.....	72
Plan of procedure for training begin- ning workers for semi-skilled mech- anical occupations.....	72
Directions for the teacher.....	74
Calendar of procedure.....	77
General procedure in beginning the unite.....	85
Visual aid.....	89
Supplementary films.....	93
APPENDIX AND BIBLIOGRAPHY..... (Bibliography begins on p. 304)	178

Chapter I
INTRODUCTION

The visitor who approaches the city of Monroe, Michigan, from any direction never fails to notice its two outstanding characteristics: on one side of the beautiful River Raisin its attractive residential district with huge elm trees forming a natural canopy over the wide-paved streets and the many beautiful stone gardens; on the other side of the river its industrial area with a variety of factories where most of the four thousand workmen are busily engaged in the semi-skilled mechanical occupations.

The one public high school in this city of 20,000 is organized on a six year basis, grades seven through twelve, and has an enrollment of over sixteen hundred students.

Most of the students come from sturdy American families whose living is earned in the semi-skilled occupations.

At present the Industrial Arts Department in Monroe is divided into five units: Wood Shop, Metal Shop, Mechanical Drawing and Drafting, Auto Mechanics, and Printing. The training which the boys receive in these

shops is of some help in securing semi-skilled jobs but does not completely prepare them for entry into this field.

The 1930 census shows that there were about 6,000,000 skilled and about 8,000,000 semi-skilled workers in the United States.

Dorr (5) through the use of a questionnaire covering 91 different firms in Fond du Lac, Wisconsin in 1930 found 39.8% of all the employed people in that city doing semi-skilled work.

Fryklund (6) in a study of the selection and training of modern factory workers comments on versatility:

Because of constant shift within factories and frequent layoffs it is necessary for men to be so trained that they can make adjustments readily to small work units whenever they are assigned to new work.

Koepke (13) in his study of manufacturing plants in Minnesota in 1934 found that "men move from metal working plants to bakeries, from woodworking plants to shoe factories, from ushering in theaters to bakeries, ad infinitum."

The Monroe, Michigan, Chamber of Commerce states that there were 4,000 employed in the local factories, most of whom were in the semi-skilled occupations, and 2,000 employed in work other than in the factories.

If approximately one-half of the people who work in Monroe, Michigan, are engaged in the semi-skilled occu-

pations, it appears that the young people who are about to enter these occupations should be assisted by the organization of an adjustment service for junior employment in the semi-skilled mechanical occupations. This service should help them to become better trained to perform their work more efficiently, to become more adaptable and more versatile, and as a result to be better able to secure and hold semi-skilled jobs in these occupations.

The term semi-skilled job is defined as involving some trade skill but requiring less than that acquired by one who has served an apprenticeship and become a journeyman.

By adjustment service is meant the development of a background of understanding with reference to production skills, hours, wages, and working conditions such as are required by semi-skilled mechanical occupations.

Junior employment is defined as a form of occupation or job that is lower in rank than that held by skilled workers or those who have obtained permanent status.

Mechanical occupation is defined as any type of work which requires the use of tools or machines. In this study only jobs the requirements of which can be filled by semi-skilled workers have been considered.

This study is limited to the semi-skilled mechanical occupations of Monroe, Michigan.

This problem stated in question form is: What should be the organization and content of an adjustment service for junior employment in the semi-skilled mechanical occupations for Monroe, Michigan?

Subordinate questions which arise from this main problem are these:

1. What semi-skilled mechanical occupations are found in Monroe, Michigan?
2. How many different kinds of pay-roll jobs are found in the semi-skilled mechanical occupations?
3. How many people are engaged in each pay-roll job?
4. Are these pay-roll jobs permanent or seasonal?
5. What wages are now being paid for these jobs?
6. Is the turn-over rapid in these jobs?
7. What are the duties of the workers in the semi-skilled mechanical occupations?
8. What technical knowledge is required for these jobs?
9. What are the physical, mental, and educational requirements in the semi-skilled mechanical occupations?
10. How versatile does the worker have to be?

11. What degree of emotional stability is required for these jobs?
12. What construction activities can be offered in Industrial Arts shops that will give the boy a better understanding of the semi-skilled jobs in that community.
13. What first-hand studies should be made by boys to gain a better understanding of semi-skilled mechanical occupations of Monroe?
14. What content should be studied in order to give him more insight of the semi-skilled jobs in Monroe?
15. What part can visual aid play in developing an understanding of these semi-skilled mechanical occupations?
16. What should be the content and procedure in operating a junior adjustment service for the semi-skilled mechanical occupations?

A study was made of previous research to determine what answers or partial answers had been found to the subordinate questions. A summary of the findings will appear in Chapter II.

Chapter II

REVIEW OF RESEARCH

Adam probably was confronted with problems not unlike those which man is still trying to solve. His needs were simple; his wants were few. His struggle for existence centered around adequate provision of food, shelter, and clothing. The necessity arose for protection against the elements. He solved the problem through his own ingenuity without cooperation and without tools. Those who followed him learned through him in so far as he was able to teach them what he had already learned. This process of learning continued with individuals contributing ideas until a new system had been developed. We refer to this system as cooperative manufacturing. History would indicate that during the medieval period the man who was proficient in making one particular product that met the needs of his community became the nucleus around which a factory evolved. His neighbors came to his home and were taught the fundamentals of this trade. For the first time in history men were working cooperatively in producing needs for their communities.

The apprenticeship system probably began

through some such cooperative activity. After having served his appointed time, the apprentice became a master craftsman. With slight modifications this craft system prevailed until the advent of modern machinery.

Technology has necessitated a change in production methods. Now instead of serving as an apprentice in order to acquire the skills necessary to make a complete pair of shoes, the worker becomes a specialist in making one part of the shoe. He is a unit in the production line of manufacture.

In reviewing the research literature partial answers were found to subordinate questions 5, 8, 9, 10, 13, and 14.

Research findings that have a bearing on subordinate question 5, "What wages are now being paid for semi-skilled jobs?" are given by Dorr (5) who through a questionnaire covering ninety-one different firms in Fond du Lac, Wisconsin, in 1930 found 39.8 per cent of all the employed people in that city working at semi-skilled jobs. The educational requirement of this class ranged from sixth grade through twelfth. Wages ranged from sixteen cents to one dollar per hour.

It will be interesting to note how this range of pay compares with the of Monroe, Michigan.

Koepke (13) through a job analysis of manufacturing plants in Minnesota in 1934 partially answers

subordinate question 8 which refers to the technical knowledge required for semi-skilled jobs. He found that 72 percent of all the jobs in 85 manufacturing plants in Minnesota, representing 31 different industries, required a training period of less than 9 months. Of these occupations 22 percent required less than half a month of training for satisfactory labor and 33 percent required from half a month to two months. This job analysis table of manufacturing plants in Minnesota follows.

Table I. --A JOB ANALYSIS OF MANUFACTURING PLANTS
IN MINNESOTA BY KOEPKE

Industry	Less than $\frac{1}{2}$ mo.	From $\frac{1}{2}$ to 2 mo.	From 3 to 9 mo.	From 10 mo. to 2 yrs.	From over 2 to 4 yrs.	Over four yrs.
Bag.....	46	17	14	17	6	0
Baking.....						
Hand-operated..	8	15	15	30	32	0
Mechanized.....	53	27	6	14	0	0
Bottling.....	50	10	0	0	0	40
Candy.....						
General.....	0	9	17	41	33	0
Specialized....	0	31	24	45	0	0
Canning.....	87	13	0	0	0	0
Carpet.....	15	31	39	15	0	0
Chemical.....	57	43	0	0	0	0
Cigar.....	41	8	11	0	26	14
Clothing.....	80	4	8	8	0	0
Coat.....	0	38	14	44	4	0
Coke.....	0	23	0	74	3	0
Creamery.....	44	13	0	37	4	2
Dry Cleaning.....	16	31	18	35	0	0
Flour.....	0	10	13	25	4	48
Food.....	41	18	18	12	8	3
Furniture.....	2	38	33	24	3	0
Knitting.....	0	75	25	0	0	0
Laundry.....	20	38	32	9	1	0
Metal working....	4	22	11	20	42	1
Miscellaneous....	4	55	21	18	2	0
Packing.....	28	56	13	2	1	0
Paint.....	18	18	18	46	0	0
Paper box.....	3	29	22	30	13	3
Pottery.....	77	20	3	0	0	0
Printing.....						
Engraving, high- class printing, and newspaper printing.....	6	2	6	9	32	45
Simple.....	0	48	20	8	20	4
Quarry.....	100	0	0	0	0	0
Shoe.....	33	39	11	15	2	0
Stone and marble.	3	16	59	14	6	2
Woodworking.....						
Production type.	45	39	10	6	0	0
Sash and door...	5	25	27	28	15	0
Woolen.....	36	24	6	32	2	0
All industries..	22	33	17	16	8	4

Keopke (13) also partially answers subordinate question 14 which deals with the content to be studied to give more insight into semi-skilled mechanical occupations. He is of the opinion that the public school cannot adequately offer extensive training in these semi-skilled occupations. He states:

Today factory workers should be taught not one trade but the basic operations of industrial production as a whole. Detailed knowledge of the handling of a particular machine or of the working of a particular material is less important now than it was formerly, when jobs were less rigidly defined and less quickly learned. A production worker would benefit more from training in dexterity and bimanuifiability than from detailed mechanical knowledge. If in addition he were trained to eliminate waste of materials, time, and motions or energy, he would be invaluable to industry. Another important part of vocational education may consist in preparing the workman to enjoy the increased leisure that is very likely to become a regular feature in his life.

The results or findings of the above data should be of great help in setting up a program that will be of benefit to our high school pupils.

Research findings that have a bearing of subordinate question number 9, "What are the physical, mental and educational requirements in the semi-skilled mechanical occupations?" are given by House (11) in a study concerning occupational information needed in vocational guidance of the youth of Kansas City, Kansas, in 1936. With the use of a questionnaire, he found that the tendency of production departments is

not to hire any workmen who are under 21 years of age because of the physical stamina required and other barriers such as insurance regulations and labor laws. He found that industry stressed the physical qualifications; weight, height, and strength seemed to be outstanding. Although age is not a physical requirement, it could be considered as such because it was found that many firms will not hire anyone under 21 years of age. The tendency was to hire only boys and girls who had completed the eighth grade. Industry also demanded that the average workman have at least average intelligence.

House found that semi-skilled jobs are not offered to workers in the meat packing industry until they are 21 years of age or older and that youth was usually started on six jobs in the public utilities. Most of these jobs offered to beginners were of a semi-skilled nature.

Analysis sheets were used by House to get information about the qualifications and specifications required for 25 typical jobs open to young workers in Kansas City, Kansas. All of the duties listed in the 25 various jobs were arranged under the following six heads for the purpose of distinguishing an individual duty or duties from the other duty or duties.

1. Assigned duties and responsibilities.
2. Distribution and collection duties.
3. Relief duties.
4. Manipulation duties.
5. Assisting duties.
6. Varied tasks or miscellaneous duties.

His compilations showed that the ability to perform assigned duties headed the list with an average frequency rating of 20.5, physical qualifications required of youth with an average frequency rating of 19.4 were second, and mental qualifications were third with a frequency of 17.7.

Maxon (16) through the use of a questionnaire in 1936 in Fort Madison, Iowa, found that high school graduation is generally required for employment in an occupation with additional training necessary in some cases.

Subordinate question 10, "How versatile does the worker have to be?" is answered in part by the National Industrial Conference (19:18-19) which states that the investigation by the Essex County Vocational School of Newark, New Jersey, to find out what would be required of semi-skilled workers, showed that there is a high employment below the skilled level; that there is considerable moving from one type of work to another. For example, a person may move

from a semi-skilled job in industry to one in personal service work.

Industry does practically nothing in developing semi-skilled workers to do more than one specialized job or process. The New Jersey School also found that some types of semi-skilled work appear to make people easily adaptable to a number of semi-skilled jobs. An example was given with reference to the employers who use the Junior Employment Service. These employers call for boys and girls with some mechanical experience for several types of semi-skilled jobs.

The National Industrial Board (19) found that of 473 companies (of which 305 were in the metal products and machine and machine tool industries) 47 percent had no definite policies for training employees for more than one task.

Frylund (6) in a study of the selection and training of modern factory workers, states this regarding versatility:

Because of constant shift within factories and frequent layoffs it is necessary for men to be so trained that they can make adjustments readily to small work units whenever they are assigned to new work.

From these studies a person is inclined to draw the conclusion that emphasis should be placed on versatility in a training program.

Subordinate question number 13, "What first-hand studies should be made by boys to gain a better understanding of semi-skilled mechanical occupations of Monroe?" was practically answered by Maxon (16) who made a survey in Fort Madison, Iowa, in 1937.

After having made this study, he recommended that trips be organized for students so that they could see industrial shops or manufacturing plants in operation. In this way pupils could acquire additional information from observing workers on the job and noting the industrial organization of the plant, and they would learn how workers fit into a definitely planned system.

If trips through industry are recommended as a background for better understanding of what the semi-skilled worker does, then it will be interesting to know what other activities of this type will be of value to students taking Industrial Arts.

A discussion of the materials and methods used in obtaining the data for answering other questions proposed in this thesis will be given in Chapter III.

Chapter III

METHODS AND MATERIALS

Before beginning to gather data for the organization and content of an adjustment service for junior employment in Monroe, Michigan, it was necessary to decide upon methods and procedures of collecting the data; which occupations were classified as "mechanical", and how these data were to be recorded and organized into useable form.

Mechanical occupations is defined as any work which requires the use of tools or machines. In this study only jobs, the requirements of which can be filled by semi-skilled workers, have been considered. This definition was used in determining which occupations were to be included in the study.

SOURCES

In order to secure the most accurate information about the industry to be visited, arrangements were made to meet with the employer and to discuss with him the data pertaining to the semi-skilled jobs performed in his factory. These arrangements were made at least one day previous to the visitation. This arrangement whenever possible was made through an outside source such as the Chamber of

Commerce, the school, or business men. It was found that this contact usually helped in securing a competent guide. Often the employer personally acted in this capacity.

Information necessary for the data sheets was secured from the employer whenever possible. If he was busy, he designated another official or some reliable member of his staff to give the necessary information. At no time was an employee consulted regarding the complete data. Sometimes it was impossible to secure all of the necessary data at one time. This necessitated a revisit. In a few cases, as many as three visits were necessary.

There were sixty-six industries in Monroe which offered jobs which could be classified as a "mechanical occupations." Included in these industries were seventeen service stations which had facilities for doing more than selling gasoline and oil. Most of these stations are owned and controlled by the larger oil companies and were very similar with respect to the semi-skilled jobs performed there. Four were considered as a sufficient sampling of this group. There were also four garages which employed semi-skilled workers. Two were considered as a representative sampling.

Six business establishments were omitted from this study because satisfactory arrangements could not be made with the employer.

Every semi-skilled occupation in Monroe, Michigan, is represented by at least one firm.

METHODS

The personal interview method was used to obtain the necessary data from the forty-six business establishments which were studied.

The interview was usually conducted in the employer's office. The first procedure was to familiarize the employer with the purpose and need for the study. It was found that the executive was more willing to cooperate after it had been pointed out to him that the school hoped to prepare boys for entrance into the semi-skilled occupations and in this way train better workers for him.

After the purpose and need for the study had been established, the employer was shown a check sheet and a "Should Know--Should Do" sheet covering the duties and responsibilities of beginning semi-skilled workers. These devices were necessary to record the valuable information in a systematic and precise manner. Any items which he did not understand were explained and discussed. This part of the interview completed, a tour of the premises was made with either the employer or a guide designated by him. Notes were taken as the employer explained the various jobs. A revisit was then made to the employer's office. The check sheet and "Should Know--Should Do" sheet were again placed in the hands of the employer. As each semi-skilled job was considered, he gave the answers and

they were duly recorded.

PROCEDURE

The names of the semi-skilled mechanical occupations in Monroe, Michigan were obtained with the cooperation of the Chamber of Commerce, and by consulting the telephone directory and the city directory. After the names of these firms had been recorded in alphabetical order, they were again submitted to the Chamber of Commerce for final checking. A list of these occupations is found in the appendix.

The various methods of obtaining data were studied and discussed with professors of Industrial Education on the Colorado State College Campus and with persons who had had experience in obtaining data for previous theses. After very careful consideration of the facts obtained in these discussions, the personal interview method was chosen as the one that probably would be the most reliable.

The contents of the thesis outline was perused to determine what specific information was necessary in answering the sixteen subordinate questions. Various sources on check sheets and forms were secured through the library, from professors on the campus, and from students. A check sheet developed by a committee working under Dr. C. A. Prosser during the 1938 summer session at Colorado State College is the basis for the check sheet used in

this study. This sheet contains fourteen main headings, namely: Character of Job, Type of Mark, Physical Requirements (jobs), Physical Requirements (Personal), Mental Requirements, Abilities-Technical Knowledge, Previous Experience Required, Grade of Intelligence Required, Employment Conditions, Working Conditions, Educational Requirements, Turn-Over in Jobs, Different Jobs Performed by Worker and Emotional Stability Required.

Each of the main topics was sub-divided into sub-topics. Spaces were provided to the left of these sub-topics for checking. In this way a standardized form was established for all the industries covered. A master sheet was then made in order that data could be compiled more efficiently.

The "Should Know--Should Do" sheet is divided into a box head arrangement with the "Should Know" in one column and the "Should Do" in another. Samples of these sheets will be found in the appendix.

Answers to the following subordinate questions already listed in the introduction were found by a compilation of data taken from the master check sheets found in the appendix.

1. What semi-skilled mechanical occupations are found in Monroe, Michigan?
2. How many different kinds of pay-roll jobs are found in the semi-skilled mechanical occupations?

3. How many people are engaged in each pay-roll job?
4. Are these pay-roll jobs permanent or seasonal?
5. What wages are now being paid for these jobs?
6. Is the turn-over rapid in these jobs?
8. What technical knowledge is required for these jobs?
9. What are the physical, mental, and educational requirements in the semi-skilled mechanical occupations?
10. How versatile does the worker have to be?
11. What degree of emotional stability is required for these jobs?

In answering subordinate question 7, "What are the duties of the workers in the semi-skilled mechanical occupations?" a box head data form was used. One column was headed "Should-Know." Information which an employer thought that a boy should know about a specific job is recorded here. The second column was headed "Should Do." In this column are listed the skills which the employer thought a boy should have on this specific job. One of these forms was used for each semi-skilled job.

Master sheets were made for each occupational cluster for the "Should Know and Should Do" forms. The master information sheet was divided into three parts. The first part consists of information which the school

could teach; the second part consisted of information which the school could not teach directly, but for which parallel units could be substituted in order that the student could obtain information that was closely related; the third part consisted of information that the school could not teach due to inadequate facilities.

The same procedure is followed regarding the "Should Do" master sheets.

The "Should Know and Should Do" master sheets were presented to a few employers of similar occupations in Fort Collins, Colorado, to check for any omissions of information or skill units which they considered as valuable.

These data were assembled to determine the recommendations that were to be made regarding the organization of a curriculum for the semi-skilled mechanical occupations of Monroe, Michigan. (See introduction questions 12-16).

A summary of the findings appears in Chapter IV.

Chapter IV

FINDINGS

The prospector who finds gold does not rely solely upon his own judgment or knowledge but utilizes the knowledge and facts of those who have prospected before him.

The educator establishes premises based upon facts of the past and then proceeds to build from them. The survey of semi-skilled mechanical occupations at Monroe, Michigan, indicated that the school could do a great deal more in helping train students for these jobs.

THE NUMBER AND NAMES OF SEMI-SKILLED MECHANICAL OCCUPATIONS IN MONROE, MICHIGAN

The survey of the semi-skilled mechanical occupations in Monroe, revealed that there are 46 industries which are classified as mechanical occupations. These 46 industries employ 1,659 semi-skilled workers. Table 1, which follows, shows the names of the firms and the number of semi-skilled workers employed by each.

Table 2.--SEMI-SKILLED MECHANICAL OCCUPATIONS IN MONROE,
MICHIGAN

Acme service Station	3
Amendt Milling	11
Baer Lou Co. (Upholstering)	4
Beck Lumber Co.	2
Buckeye Furniture Co.	2
Brilliant Sign Co.	10
Consolidated Paper Co.	356
Detroit Stoker Co.	63
Drabbe Bakery	5
Firestone Auto Supply & Gas Service Stores	9
Floral City Furniture	49
Floral City Ice Cream Co.	4
France Stone Co.	5
Franklin Ice Cream Co.	6
Handeyside C. A. Construction Co.	16
Hi-Speed Service Station	4
Hixon & Peterson Lumber Co.	4
Home Laundry	15
Hubble N. B. Roofing Co.	3
Independent Dairy Co.	14
Knapp Service Station	4
Knapp W. H. Construction Co.	7
Lamour Printing Co.	5
Lesow & McBride Progressive Printers	5
Lindsays Garage	7
May, Harry Chev. Co.	7
McMillon Printing Co.	2
Modern Building Co.	7
Monroe Auto Equipment	10
Monroe Coco Cola Bottling Co.	2
Monroe Foundry & Furnace Co.	62
Monroe Furniture Repair	2
Monroe Paper Products	223
Monroe Steel Castings	96
Monroe Lumber Co.	5
Monroe Siding and Roofing	13
No-Leak Roofing & Paint Co.	6
National Utilities Co.	9
Quality Bakery	3
River Raisin Paper Co.	124
Schonberger Pattern Co.	2
Stockford Construction Co.	4
Stoner Mauer Co.	177
Tri-State Roofing & Siding Co.	5
Weis Mfg. Co.	43
Wolverine Lumber & Supply Co.	123

While the data were being collected, many employers commented that the semi-skilled jobs found in their factories were very similar to those found in the factories of their competitors. Upon examination of the data these statements were found to be true. The general pattern of the semi-skilled jobs found in one foundry was similar to those found in another foundry; those found in the paper factories also seemed to follow a general pattern. Many other businesses also seemed to fall into a natural pattern grouping. All industries which had similar semi-skilled patterns were, therefore, grouped together. This resulted in ten groupings or occupational clusters as they will be referred to in this study. Firm names are listed by occupational clusters, and each occupational cluster is numbered for reference purposes. These tables follow:

Table 3.--OCCUPATIONAL CLUSTERS IN MONROE, MICHIGAN

I. AUTOMOTIVE

Acme Service Station
Hi-Speed Service Station
Firestone Auto Supply and Gas Service Store
Knapp Service Station
Lindsay's Garage
May Garage
Monroe Auto Equipment

II. BAKING AND FLOUR MILLING

Amendt Milling Co.
Drabbe Bakery
Quality Bakery

Table 3.--OCCUPATIONAL CLUSTERS IN MONROE, MICHIGAN
(Continued)

III. BUILDING AND CONSTRUCTION

Brilliant Sign Co.
France Stone Co.
Handyside, C. A. Construction Co.
Knapp, W. H. Construction Co.
Modern Building Co.
Stockford Construction Co.

IV. DAIRY, ICE CREAM, BOTTLING

Floral City Ice Cream Co.
Franklin Ice Cream Co.
Independent Dairy Co.
Monroe Coco-Cola Bottling Co.

V. FOUNDRY

Detroit Stoker Co.
Monroe Furnace and Foundry Co.
Monroe Steel Casting Co.
Stoner--Mauer Equipment Handling Co.

VI. LUMBER, FURNITURE, UPHOLSTERING, PATTERN MAKING,
OFFICE EQUIPMENT AND ROOFING

Bour, Lou Upholstering Co.
Beck Lumber Co.
Buckeye Furniture Co.
Floral City Furniture Co.
Hixon-Peterson Lumber Co.
Hubble Roofing Co.
Monroe Furniture Repair Co.
Monroe Lumber Co.
Monroe Siding and Roofing Co.
No-Leak Roofing and Siding Co.
Schnorberger Pattern Shop
Tri-State Roofing and Siding Co.
Wolverine Lumber and Supply Co.
Weis Mfg. Co.

VII. LAUNDRY

Home Laundry

Table 3.--OCCUPATIONAL CLUSTERS IN MONROE, MICHIGAN

(Continued)

VIII. PAPER

- Consolidated Paper Co.
- River Raisin Paper Co.
- Monroe Paper Products Co.
- Woodall Industries Inc.

IX. PRINTING

- Lamour Printing Co.
- Lesow and McBride Progressive Printers
- McMillon Printing Co.

X. UTILITIES

- National Utilities

A compilation of the different kinds of pay-roll jobs in Monroe, Michigan, and the number of semi-skilled workers employed in each was made. This compilation is given in the following table:

Table 4.--SEMI-SKILLED PAY-ROLL JOBS IN MONROE, MICHIGAN

No.	Name of Job	No. Employed
1.	Annealer.....	2
2.	Assemblyman (Piston)	20
3.	Assemblyman (Shock Absorber)	25
4.	Assemblyman (Valve)	4
5.	Back Tender	30
6.	Band Saw Operator	4
7.	Batteryman	1
8.	Beater Supt.	4
9.	Blacksmith	4
10.	Bottler	4
11.	Bottle Washer	1
12.	Bread Wrapper	2
13.	Bulldozer	2
14.	Bumper (Helper)	1
15.	Carpenter (Rough)	24
16.	Car Washer and Waxer	12
17.	Chisler	9
18.	Concrete Mixer and Finisher.....	9
19.	Concrete Mixer	2
20.	Conveyor Operator	20
21.	Cookie, Roll and Doughnut Wrapper	1
22.	Core Maker	15
23.	Corn Starch Mixer	2
24.	Corrigator	50
25.	Cracker (Stone)	2
26.	Crane Operator	4
27.	Creaser	8
28.	Die Maker (Paper Press)	19
29.	Dipper and Dryer (Paint)	2
30.	Draw Press Operator	18
31.	Driller	2
32.	Drill Press Operator	2

Table 4.--SEMI-SKILLED PAY-ROLL JOBS IN MONROE, MICHIGAN
(Continued)

No.	Name of Job	No. Employed
33.	Embossing Machine Operator	4
34.	Expansion Maker	4
35.	Feed Grinder	4
36.	Fireman (Boiler)	2
37.	Flat Press Operator	4
38.	Flour Packer	3
39.	Furnace Tapper	9
40.	Furnace Tapper and Pourer	2
41.	Furniture Repairer	3
42.	Gas Water Operator	5
43.	Gluer	138
44.	Gluer and Sander	4
45.	Greaser	9
46.	Grinder	24
47.	Hand Type Setter	2
48.	Hand Type Setter and Platen Pressman	28
49.	Heat Treater	6
50.	Homogenizer and Pasteurizer	4
51.	Ice Cream and Butter Packer	5
52.	Ice Cream Maker	10
53.	Ink Mixer	8
54.	Joint Maker	2
55.	Ladler	21
56.	Liner	4
57.	Machine Tender	49
58.	Marker and Sorter	2
59.	Metal Shaper	10
60.	Metal Spinner (Sharpener)	6
61.	Metal Upsetters	4
62.	Millwright	7
63.	Molder.....	292
64.	Molding Machine Operator (Bread)	2
65.	Oiler and Sweeper	2
66.	Oven Operator and Steam Room Operator	1
67.	Painter	5
68.	Painter and Sprayer	4
69.	Paper Cutter (Hand)	2
70.	Paper Cutting Machine Operator	81
71.	Pasteurizer	2
72.	Pillow Stuffer	4
73.	Plainer Operator	1
74.	Pressman (Bronze)	112
75.	Pressman (Color)	20

Table 4.--SEMI-SKILLED PAY-ROLL JOBS IN MONROE, MICHIGAN
(Continued)

No.	Name of Job	No. Employed
76.	Pressman (Platen)	2
77.	Pressman (Miehle)	160
78.	Pressman (Machine)	18
79.	Punch Press Operator	17
80.	Riveter	1
81.	Roll Twister	2
82.	Roofer	15
83.	Sand Blaster	4
84.	Sander	2
85.	Scrap Stockkeeper and Feeder	2
86.	Service Mand and Greaser	3
87.	Sewer (Machine)	58
88.	Shock Sprayer	2
89.	Shaker	2
90.	Shirt Press Operator	2
91.	Sign Constructor	4
92.	Sign Erector and Repairer	6
93.	Slater.....	12
94.	Smoother	1
95.	Soft Press Operator	2
96.	Spray Painter	4
97.	Stainer (Wood)	3
98.	Stamp Press Operator	14
99.	Starch Press Operator	2
100.	Steam Shovel Operator	1
101.	Steel Cutter and Riveter	2
102.	Stockkeeper	9
103.	Stockkeeper and Cutter (Hand)	2
104.	Stockkeeper and Cutter (Upholstery)	3
105.	Stoker (Coal)	4
106.	Sway Bar Shaper	5
107.	Tag Bender (Machine)	2
108.	Tool Keeper	4
109.	Trip-hammer Operator.....	4
110.	Truck driver (Electric).....	2
111.	Upholsterer	17
112.	Upholsterer and Furniture Repairer	2
113.	Veneer Maker	4
114.	Washing Machine Operator	1
115.	Wax Machine Operator	28
116.	Welder (Oxyacetylene Helpers)	10
117.	Welder (Electric)	2
118.	Welder (Spot)	1

Table 4.--SEMI-SKILLED PAY-ROLL JOBS IN MONROE, MICHIGAN
(Continued)

No.	Name of Job	No. Employed
119.	Yard Man (Lumber)	<u>12</u>
Total		<u>1,659</u>

A table was made to show the name of the firm, the different pay-roll jobs in that firm, and the number of employees in each job. These tables were then summarized in the form of a master table for each occupational cluster. Duplicated jobs were eliminated. These tables appear below.

Table 5.--MASTER TABLE FOR AUTOMOTIVE INDUSTRIES OF
MONROE, MICHIGAN

OCCUPATIONAL CLUSTER I

	No. Employed	Acme Service Station	Firestone Service Station	May Garage	Hi-Speed Service Station	Knapp Service Station	Lindsay's Garage	Monroe Auto Equipment Co.
Assemblyman (Piston)	20							20
Assemblyman (Shock Absorber)	25							25
Assemblyman (Valve)	4							4
Battery Man	1	1						
Bumper (Helper)	1	1						
Car Washer and Waxer	12	4	2	2	2	2		
Greaser	11	2	3	2	2	2		
Heat Treator	6							6
Ladler	2							2
Metal Shaper (tube)	10							10
Molder	15							15
Punch Press Operator	8							8
Service Man and Greaser	3	3						
Stockkeeper	3		2	1				
Shock Sprayer	2							2
Sway Bar Shaper	5							5
Welder (Oxyacetylene Helper)	5							6
Total	134	39	7	4	4	4	4	10

Table 6.-- MASTER TABLE FOR BAKING AND FLOUR MILLING
INDUSTRIES OF MONROE, MICHIGAN

OCCUPATIONAL CLUSTER II

	No. Employed	Amendt Milling Co.	Quality Bakery	Drabbe Bakery
Bread Wrapper	2	1	1	
Cookie Roll and Doughnut Wrapper	1			1
Feed Grinder	4	4		
Fireman, Boiler	2	2		
Flour Packer	3	3		
Molder Machine Operator (Bread)	2		1	1
Oiler and Sweeper	2	2		
Oven Operator and Steam room Operator	1			1
Roll Twister	2		1	1
Total	19	11	3	5

Table 7.--MASTER TABLE FOR BUILDING AND CONSTRUCTION
INDUSTRIES OF MONROE, MICHIGAN

OCCUPATIONAL CLUSTER III

	No. Employed	Brilliant Sign Co.	France Stone Co.	Handyside Construction Co.	Knapp Construction Co.	Modern Building Co.	Stockford Construction Co.
Bulldozer	2			2			
Carpenter (Rough)	15			6	3	4	2
Concrete Mixer	2			2			
Concrete Mixer and Finisher	9			4		3	2
Cracker (Stone)	2	2					
Driller	2	2					
Expansion Maker	4			4			
Painter	1				1		
Steam Shovel Operator	1	1					
Sign Constructor	4	4					
Sign Erector and Repairer	6	6					
Slater	1					1	
Smoother	1				1		
Total	50	10	5	16	7	8	4

Table 8.--MASTER TABLE FOR DAIRY, ICE CREAM, AND BOTTLING
INDUSTRIES OF MONROE, MICHIGAN

OCCUPATIONAL CLUSTER IV

	No. Employed	Floral City Ice Cream Co.	Franklin Ice Cream Co.	Independent Dairy Co.	Coco-Cola Bottling Co.
Bottler	4		3	1	
Bottle Washer	1			1	
Homogenizer and Pasteurizer	4		4		
Ice Cream and Butter Packer	5		5		
Ice Cream Maker	10	4	6		
Pasteurizer	2		2		
Total	26	4	6	1	4

Table 9.--MASTER TABLE FOR FOUNDRY INDUSTRIES OF MONROE,
MICHIGAN

OCCUPATIONAL CLUSTER V

	No. Employed	Detroit Stoker	Stoner-Mauer	Monroe Steel Castings	Monroe Furnace and Foundry
Annealer	2			2	
Blacksmith	2				2
Blacksmith (Helper)	1			1	
Core Maker	15	4	2	4	5
Crane Operator	4	1		2	1
Furnace Tapper	9	2	2	2	3
Grinder	24	5	10	4	5
Ladlers	19	2	12	3	2
Metal Spinner	6		6		
Molder	267	40	125	66	36
Sand Blaster	4			4	
Scrap Stockkeeper and Feeder	2			2	
Stamp Press Operator	14		14		
Stockkeeper	4	2			2
Tool Keeper	4	2			2
Trip Hammer Operator	4		4		
Truck Driver (Electric)	2			2	
Welder (Electric)	2		2		
Welder (Oxyacetylene)	4			4	
Total	398	63	177	96	62

Table 10.--MASTER TABLE FOR LUMBER, FURNITURE, UPHOLSTER-
 ING, PATTERN MAKING, OFFICE EQUIPMENT AND ROOFING INDUS-
 TRIES OF MONROE, MICHIGAN

OCCUPATIONAL CLUSTER VI (Continued)

	No. Employed	Baer Upholstering Co.	Beck Lumber Co.	Buckeye Furniture Co.	Floral City Furniture Co.	Hixon Peterson Lumber Co.	Hubble Roofing Co.	Monroe Furniture Repair Co.	Monroe Lumber Co.	Monroe Siding and Roofing Co.	No-Leak Roofing and Paint Co.	Schonberger Pattern Works	Tri-State Roofing Co.	Weis Manufacturing Co.	Wolverine Lumber Co.
Slater	1									1					
Spray Painter	4														
Stainer (Wood)	3														3
Steel Cutter and Rivetor	2			2											
Stockkeeper	2			2											
Stockkeeper and Cutter (Upholstery)	3				3										
Tag Bender	2														2
Type Setter and Platen Press (Operator)	4														4
Upholsterer	17	3			14										
Upholsterer and Furniture Repair	2							2							
Veneer Maker	4														4
Welder (Spot)	1														1
Yard Man	12		2		4			3							3
Total	139	44	44	45	4	3	2	5	13	6	2	5	39	3	

Table 11.--MASTER TABLE FOR LAUNDRY INDUSTRIES OF
MONROE, MICHIGAN

OCCUPATIONAL CLUSTER VII

	No. Employed	Home Laundry
Flat Press Operator	4	4
Marker and Sorter	2	2
Shaker	2	2
Shirt Press Operator	2	2
Soft Press Operator	2	2
Starch Press Operator	2	2
Washing Machine Operator	1	1
Total	15	15

Table 12.--MASTER TABLE FOR PAPER INDUSTRIES OF MONROE,
MICHIGAN

OCCUPATIONAL CLUSTER VIII

	No. Employed	Consolidated Paper Co.	River Raisin Paper Co.	Woodall Industries Inc.	Monroe Paper Products.
Back Tender	30	6	9		15
Beater Superintendent (Paper)	4	2	1		1
Conveyor Operator	20			20	
Corrigator	50	25	10		15
Corn Starch Mixer	2		1		1
Creaser	8			8	
Die Maker (Paper)	19	10	2	4	3
Draw Press Operator	18			18	
Embossing Machine Operator	4			4	
Gluer	134	100	4		30
Hand Typesetter and Pressman (Platen)	20	10	2		8
Ink Mixer	8	8			
Liner	4			4	
Machine Tender	49	25	9		15
Metal Upsetters	4			4	
Millwright	5			5	
Paper Cutting Machine Operator	81	40	14		27
Pressman (Bronze)	112	40	22		50
Pressman (Color)	20	20			
Pressman (Machine)	10	10			
Pressman (Miehle)	160	70	40		50
Punch Press Operator	6			6	
Sewer (Machine)	50			50	
Wax Machine Operator	28		10		18
Total	846	366	124	123	233

Table 13.-- MASTER TABLE FOR PRINTING INDUSTRIES OF
MONROE, MICHIGAN

OCCUPATIONAL CLUSTER IX

	No. Employed	McMillian Printing Co.	Lamour Printing Co.	Lesow and McBride Progressive Printers
Hand Typesetter	4	2		2
Hand Typesetter	2		2	
Paper Cutter (Hand)	2		1	1
Pressman (Platen)	2	2		
Stockkeeper and Cutter	2			2
Total	12	2	5	5

Table 14.--MASTER JOBS FOR UTILITY INDUSTRIES OF MONROE,
MICHIGAN

OCCUPATIONAL CLUSTER X

	No. Employed	National Utilities Co.
Gas Water Operator	5	5
Stokers	4	4
Total	9	9

THE PERMANENCY OR SEASONALITY OF THESE PAY-ROLL JOBS

Prosser's check sheet number 31 was used to secure the data pertaining to the permanency or seasonality of the semi-skilled jobs in Monroe.

Space was provided on the check sheet for the employer to indicate whether the job was permanent or seasonal in character.

A master sheet was compiled listing all pay-roll jobs in alphabetical order. A column was provided

left of these jobs to indicate the occupational cluster or clusters in which this job was found. The vertical columns to the right of the pay-roll jobs are labeled "permanent" and "seasonal." In these columns are shown the number of firms that list the job as "permanent" or "seasonal."

The master sheet appears on page 61.

There are 119 different pay-roll jobs in the 46 mechanical occupations in Monroe, Michigan, 81 of these 119 pay-roll jobs are permanent, while 38 are seasonal. Some jobs were both permanent and seasonal depending on the firm in which they were found.

Most of the seasonal semi-skilled jobs in Monroe were found in the businesses which produce products for the automobile industry of near by Detroit.

Jobs in the automotive, foundry, building, and construction, and paper industries tend to be seasonal. These four industries employ 1,428 of the 1,659 semi-skilled workers of Monroe.

All semi-skilled jobs found in the baking, coal gas manufacture, flour, and printing industries were permanent. This group of industries, however, employs only 38 of the 1,659 semi-skilled workers.

The most seasonal occupations are those of carpenter (rough) molder, core maker, ladler, painter (hand), roofer, machine sewer, slater, wax machine

operator, grinder, corrigator, concrete mixer and smoother, assemblymen, and punch press operator.

WAGES NOW BEING PAID SEMI-SKILLED WORKERS

The employers were asked to check whether they pay their employees by the hour, day, week, or by piece work. Sixty-four of the semi-skilled pay-roll jobs were checked per hour, 38 per week, while 28 were checked "piece work." Three firms gave a bonus at Christmas based on length of time employed. No industry paid commissions to its employees.

All employees in the Baking and Laundry industries were paid by the week.

Semi-skilled workers are not hired by the day as evidenced by table 18. Not a single case was found where the worker received a daily wage.

Workers engaged in assembly of parts were paid according to the number of parts assembled. Others receiving pay on a piece production bases were; band saw operator, car washer and waxer, chisler, corn starch mixer, creaser, draw press operator, embossing machine operator, gluer and sander, grinder, joint maker, ladler, liner, metal shaper, molder, painter and sprayer, punch press operator, sewer, sway bar shaper, upholsterer and oxy-acetylene welder.

Workers such as crane operators, greasers, hand typesetters, ice cream makers, molding machine operators, pasteurizers, platen press operators, roll twisters, stock keepers, electric truck driver, upholsterers, and furniture repairers, washing machine operators, battery men, beater superintendents, black smiths, stockkeepers, and cutters (hand) were paid by the week.

If wages were received on an hourly basis, the total wage for the week was computed and recorded under the heading of "per week." An "X" appears in the per hour column in order to indicate that the worker was paid by the hour. Employers were asked to estimate the weekly wage if the worker worked according to piece work. An "x" appears under "piece work" to indicate that that worker received his pay according to piece work.

The average weekly wage for all semi-skilled workers in the mechanical occupations was \$30.00 per week. The lowest salary was paid to upholsterers helpers. These boys did not work on a full time basis. Their average weekly wage was \$9.00. The highest pay was received by the machine pressman in the paper industry.

TURN OVER IN SEMI-SKILLED JOBS

A slow turn-over is reported for most of the semi-skilled jobs. In 86 of the 119 different jobs the turn-over was slow, in 30 jobs medium, and in only 5 jobs was it rapid.

The largest turn-over occurred in the pay-roll job listed as car worker and waxer. Four of the five firms indicated that the turn-over in this job is rapid and only one checked it as medium.

The job of shock-absorber assemblyman in the automotive industry has a rapid-turn-over.

The turn-over in the bottle washing industry is listed as rapid. Only one firm was represented.

The other two jobs in which a rapid turn-over is reported are concrete mixer and finisher.

A medium rate of turn-over was found in these jobs: Carpentry (rough), bottling, greasing, hand type-setting and platen pressing, molding, painting, paper cutting machine operating, and roofing.

TECHNICAL KNOWLEDGE REQUIRED OF SEMI-SKILLED WORKERS

Industry does not require its semi-skilled workers to have a great deal of technical knowledge, the only requirement being that the workers know the materials,

supplies, and equipment with which they come in contact on the job.

Only two firms require some drafting for the jobs of carpentry (rough) and roofing.

Ability to read blueprints was needed by the carpenters (rough), chislers, metal spinners, roofers, sign constructors, slaters, and yardmen. Of the eight firms employing carpenters (rough), four required the ability to read blueprints. One roofer of the 15 employed by four companies found the need for blueprint reading.

Twelve men are employed as yardmen in the lumber companies. Three of the four firms required these men to read blueprints.

The use of technical instruments is seldom required of semi-skilled workers; however, in grinding castings to a five degree of accuracy instruments are necessary. Three of the four firms employing grinders required this ability. The expansion maker in making joints for the laying of concrete road beds also makes use of technical instruments.

A majority of the industries studied expect their semi-skilled workers to know something about the materials, equipment, and supplies used in their jobs. Since skilled workmen repair presses and equipment in the paper industry, the semi-skilled workers such as conveyors, liners, back tenders, machine tenders, and

pressmen are not required to know materials, equipment, and supplies.

A knowledge of particular supplies is needed by semi-skilled workers whose jobs involve the handling of that supply. For example, the greaser must be familiar with the different greases and oils, carried by the firm for which he works.

Business ability was needed in only three groups of workers; stockkeepers, roofers, and yardmen. Each of these jobs involves some clerical work.

PHYSICAL REQUIREMENTS OF SEMI-SKILLED WORKERS

Most of the workers in semi-skilled jobs perform their work while standing. Such jobs as upholstering, staining, hand typesetting, furniture repairing, die making, chiseling, assembling, painting, and roofing require both standing and sitting. The only jobs that require sitting alone are wood carving, spot welding, tag bending, and sewing.

The machine operators did very little moving except the motion expended in operating the machine. These machines which include the punch press, flat press and conveyor operators, liner, metal upsetter, rivetor, roll twister, sewer, shirt press operator, tag bender, and wood carver require repetitive motions in one specific

pattern. A great deal of moving was done by such semi-skilled workers as concrete mixers and smoothers, carpenters (rough), roofers, slaters, greasers, firemen, furnace tapper and pourer, furniture repairers, homogenizer and pasteurizers, pressmen, painters, stockkeepers, battery-men, blacksmiths, and yardmen.

It was found that a great deal of walking was required of the following semi-skilled worker: Carpenter (rough), furnace tapper and ladler, greaser, ice cream maker, bottler, oiler and sweeper, sign constructor, stock-keeper, stoker, sway bar shaper, tool keeper, batteryman, and yardman. Men operating machines and those who assemble shock absorbers, pistons, and valves did no walking in performing their tasks.

The number of jobs which required climbing were few. They were found mostly in such semi-skilled jobs as carpentry (rough), painting, roofing, slating, and on places where machinery is involved such as presses, glue machines, paper cutting machines, steam shovels, creasing, and stone crushing. In these machine jobs the climbing is done in repairing, oiling, and adjusting the machines.

Table 15 shows that lifting is required in comparatively few semi-skilled jobs. The employers indicated that lifting was a requirement for the millwright, blacksmith, heat treater, ladler, scrapstock keeper and feeder.

Lifting to a small degree is needed in most machine operations due to the fact that the stock used must be lifted to machine and removed when the operation has been performed. In most cases lifting of the stock and materials could be considered as incidental to the real task performed by the worker.

Industry expects the semi-skilled worker to be at least average in weight, height, strength, eyesight, hearing, and general health. A few jobs necessitate superior strength and weight. They include stone cracker, bumper, furnace topper, ladler, and blacksmith.

Eyesight was checked by the employers as being important in 32 jobs. The assembling of pistons, valves and shock absorbers while not fine in character effects eyes because of the constant strain exerted upon them. Table 20 shows that workmen who feed rapid moving machines must possess good eyesight. The band-saw operator, paper cutting machine operator, and platen pressman fall in this class of workers. Other jobs which require better than average eyesight are furnace tapper, typesetter, joint maker, ladler, rivetor, and sand blaster, stamp and trip hammer operator and welder.

Better than average hearing was required in only four jobs, namely; handtype setter and platen pressman, color pressman, Miehle pressman and blacksmith. However,

only 170 of the 1,659 semi-skilled workers in Monroe, Michigan, are employed in these three tasks.

Women play a very small part in the mechanical industries of Monroe. In the paper industry 55 women were found working as helpers on the paper presses. Their jobs consisted mainly of feeding the presses. In the laundry industry women were employed to operate the flat, soft, and shirt presses. All ironing was done by women. Fifty women were employed in the glue department of the paper factories. Feeding the glue machines was their main duty. Four women were also employed as pillow stuffers and two as tag bending machine operators. Half of the 10 employees engaged in wrapping butter and ice cream were found to be women.

The preferred age for employees ranged from 18 to 50 years. The average age of all workers in the semi-skilled jobs in Monroe, is 30 years. The youngest workers are found in the baking, and car washing and waxing occupations. The oldest employees were found to be upholsterers, millwrights, metal spinners, furniture repairers, carpenters (rough) and assemblers.

Individual age ranges and the average age of workers in each specific job is shown on the individual job sheets in the appendix.

MENTAL REQUIREMENTS OF THE SEMI-SKILLED WORKERS

Every employer who checked the mental requirements of semi-skilled workers demanded that these workers speak English. Knowledge of reading, writing, spelling, and mathematics was frequently considered necessary in semi-skilled work. All of these abilities are used by the hand typesetter, hand typesetter and platen pressman, ice cream maker, roofer, sign constructor, slater, stock-keeper, stockkeeper and cutter, and yardman. Forty-six of the 121 semi-skilled jobs required that the employee be able to read and write; 37 jobs call for some spelling. Fifty-seven of the 121 semi-skilled jobs involve some knowledge of mathematics.

Even though the mental requirements are rather high, the educational requirements are comparatively low. Only 30 jobs required a grade school education and only 15 required a high school education. One job requires technical training and in no case is a college education expected. The greatest number of jobs requiring a high school a high school education are found in the printing industry. Three of the six firms employing printers require a high school education and one requires at least a grade school education.

Eight firms employ a total of 24 carpenters

(rough). Five of these companies expect their employees to have at least a grade school education.

Of three paper firms employing 81 semi-skilled workers as paper cutting machine operators, two firms required a grade school education while the other firm indicated a high school education as a requirement for this job.

The educational requirements were also high for stockkeepers. Three of the five employers checked a grade school education as necessary for this job.

The one job requiring technical training is that of a millwright employed in the paper industry.

EXTENT OF VERSATILITY

Industry tends to train semi-skilled workers for only one job. There are 119 pay-roll jobs in the semi-skilled mechanical occupations of Monroe, Michigan. Eighty-one of these jobs require the worker to do but one operation; 32 of these jobs require him to do two jobs.

In four of the 119 semi-skilled occupations the employee does three jobs, and in only two jobs does he perform more than three functions.

In the majority of cases in which the worker is required to perform two tasks he is employed in a small firm. The four jobs involving three duties are furniture

repairer, ice cream maker, bread molding machine operator, and oiler and sweeper. Only carpenters (rough) and yardmen perform more than three operations.

EMOTIONAL STABILITY

Four terms indicating varying levels of emotional stability were presented on the sheets checked by the employers. The employers were asked to check the level which he considered most desirable in semi-skilled workers. Every employer indicated that the worker should be "happy."

The program of action that has been released by these findings will be presented in Chapter V.

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 1-3-1945
 1-4-1945
 1-5-1945
 1-6-1945
 1-7-1945
 1-8-1945
 1-9-1945
 1-10-1945
 1-11-1945
 1-12-1945

The Green Book

1-1-1945 (Group)

1-2-1945 (Group)

1-3-1945 (Group)

1-4-1945 (Group)

1-5-1945 (Group)

1-6-1945 (Group)

1-7-1945 (Group)

1-8-1945 (Group)

1-9-1945 (Group)

1-10-1945 (Group)

1-11-1945
 1-12-1945
 1-13-1945
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 1-21-1945
 1-22-1945
 1-23-1945
 1-24-1945
 1-25-1945
 1-26-1945
 1-27-1945
 1-28-1945
 1-29-1945
 1-30-1945

Table 16-Working Conditions of Semi-Skilled
Workers in Monroe, Michigan

		No. Employed	No. of Firms	Av. Weekly Wage	Per Hour	Per Day	Per Week	Piece Work	Bonus	Commissions
5	Annealer	2	1	18	x					
1	Assemblyman (Piston)	20	1	28				x		
1	Assemblyman (Shock Absorber)	25	3	30				x		
1	Assemblyman (Valve)	20	1	30				x		
8	Back Tender	30	1	35			x			
6	Band Saw Operator	4	2	40				x		
1	Battery Man	1	1	32			x			
8	Beater Superintendent (Paper)	4	3	25			x			
5-6	Blacksmith	3	2	30			x			
4	Bottler	4	1	20	x					
4	Bottle Washer	1	2	18	x					
2	Bread Wrapper	2	1	20			x			
3	Bulldozer	2	1	32	x					
1	Bumper (Helper)	1	8	30	x					
3-6	Carpenter (Rough)	24	5	24	x					
1	Car Washer and Waxer	12	2	12				x		
5	Chisler	9	3	30				x		
3	Concrete Mixer and Finisher	9	1	18	x					
3	Concrete Mixer	2	1	16	x					
8	Conveyor Operator	20	1	30				x		
2	Cookie, Roll and Doughnut Wrapper	1	1	18			x			
5	Core Maker	15	4	30				x		
8	Corn Starch Mixer	2	2	18	x					
8	Corrigator	50	3	35			x			
3	Cracker (Stone)	2	1	26	x					
5	Crane Operator	4	3	30			x			
8	Creaser	8	1	27				x		
8	Die Maker (Paper Press)	19	4	40	x					
6	Dipper and Dryer (Paint)	2	1	16	x					
8	Draw Press Operator	18	1	27				x		
3	Driller (Stone)	2	2	26	x					
6	Drill Press Operator	2	1	27	x					
8	Embossing Machine Operator	4	1	25				x		
3	Expansion Maker	4	1	32	x					
2	Feed Grinder	4	1	28	x					
2	Fireman (Boiler)	2	1	45			x			
7	Flat Press Operator	4	1	14			x			
2	Flour Packer	3	1	28	x					
5	Furnace Tapper	9	4	28			x			
6	Furnace Tapper and Pourer	2	1	30	x					
6	Furniture Repairer	3	2	20	x					
10	Gas Water Operator	5	1	32	x					
6-8	Gluer	138	4	18	x					
6	Gluer and Sander	4	1	28				x		
1	Greaser	11	5	27			x			
5	Grinder	24	4	35				x		
9	Hand Type Setter	2	1	28			x			
6-8-9	Hand Type Setter and Platen Pressman	28	6	25	x		x			
1	Heat Treater	6	1	26	x					
4	Homogenizer and Pasteurizer	4	4	40			x			
4	Ice Cream and Butter Packer	5	1	20	x					
4	Ice Cream Maker	10	2	30			x			
8	Ink Mixer	8	1	46	x					
6	Joint Maker	2	1	25				x		
1-5	Ladler	21	5	30			x	x		
8	Liner	4	1	25				x		
8	Machine Tender	49	3	32	x					
7	Marker and Sorter	2	1	12			x			
1	Metal Shaper	10	1	28				x		
5	Metal Spinner	6	1	35				x		
8	Metal Upsetters	4	1	28				x		
8	Millwright	7	1	40			x			
1-5	Molder	292	5	28			x	x		
2	Molding Machine Operator (Bread)	2	2	25			x			
2	Oiler and Sweeper	2	1	16	x					
2	Oven Operator and Steam Room Operator	1	1	25			x			
3-6	Painter	5	4	24	x					
6	Painter and Sprayer	4	1	35				x		
9	Paper Cutter (Hand)	2	2	28	x					
8	Paper Cutting Machine Operator	81	3	30	x					
4	Pasteurizer	2	1	25			x			
6	Pillow Stuffer	4	1	16	x					
6	Planer Operator	1	1	18	x					
8	Pressman (Bronze)	112	3	30	x					
8	Pressman (Color)	20	1	40	x					
9	Pressman (Platen)	2	1	28			x			
8	Pressman (Miehle)	160	3	30	x					
6-8	Pressman (Machine)	18	2	50	x					
1-6-8	Punch Press Operator	17	4	25	x			x		
6	Riveter	1	1	16	x					
2	Roll Twister	2	2	25			x			
6	Roofer	15	4	24	x					
5	Sand Blaster	4	1	30			x			
6	Sander	2	1	18	x					
5	Scrap Stockkeeper and Feeder	2	1	25		x				
1	Service Man and Greaser	3	1	24			x			
6-8	Sewer (Machine)	58	2	20				x		
1	Shock Sprayer	2	1	18	x					
7	Shaker	2	1	12			x			
7	Shirt Press Operator	2	1	15			x			
3	Sign Constructor	4	1	18	x					
3	Sign Erector and Repairer	6	1	17	x					
3-6	Slater	2	2	36	x					
3	Smoother	1	1	28	x					
7	Soft Press Operator	2	1	14			x			
6	Spray Painter	4	1	26	x					
6	Stainer (Wood)	3	1	16	x					
5	Stamp Press Operator	14	1	28	x					
7	Starch Press Operator	2	1	14			x			
3	Steam Shovel Operator	1	1	42			x			
6	Steel Cutter and Riveter	2	1	18	x					
1-5-6	Stockkeeper	9	5	30	x		x			
9	Stockkeeper and Cutter (Hand)	2	1	25			x			
6	Stockkeeper and Cutter (Upholstery)	3	1	20	x					
10	Stoker (Coal)	4	1	24	x					
1	Sway Bar Shaper	5	1	30				x		
6	Tag Bender (Machine)	2	1	12	x					
5	Tool Keeper	4	2	30			x			
5	Trip-Hammer Operator	4	1	24	x					
5	Truck Driver (Electric)	2	1	28			x			
6	Upholsterer	17	2	30				x		
6	Upholsterer and Furniture and Repairer	2	1	9			x			
6	Veneer Maker	4	1	28	x					
7	Washing Machine Operator	1	1	22			x			
8	Wax Machine Operator	28	2	16	x					
1-5	Welder (Oxyacetylene) (Helpers)	10	2	35				x		
5	Welder (Electric)	2	1	42	x					
6	Welder (Spot)	1	1	24	x					
6	Wood Carver (Hand)	5	1	40				x		
6	Wood Carver (Machine)	3	1	40				x		
6	Yard Man (Lumber)	12	4	20	x					

Ice Cream and Butter Packer

Ice Cream Maker

Ice Mixer

Ice Cream (Frogs)

Ice Cream (Kosmos)

Ice Cream (Kosmos)

Ice Cream (Kosmos)

Ice Cream (Kosmos)

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Table 17 - Grade of Intelligence and Turnover of
Semi-skilled Workers in Monroe, Michigan

	No. Employed	No. of Films			Turnover in Jobs		
		High	Medium	Low	Rapid	Medium	Slow
5 Annealer	2	1	1		1		
1 Assemblyman (Piston)	20	1	1			1	
1 Assemblyman (Shock Absorber)	25	1	1		1		
1 Assemblyman (Valve)	4	1	1			1	
8 Back Tender	30	3	3				3
6 Band Saw Operator	4	1	1				1
1 Batteryman	1	1	1			1	
8 Beater Superintendent	4	3	3				3
5-6 Blacksmith	4	2	3				3
4 Bottler	4	2	2			2	
4 Bottle Washer	1	1	1	1	1		
2 Bread Wrapper	2	2	2			1	1
3 Bulldozer	2	1	1				3
1 Bumper (Helper)	1	1	1				1
3-6 Carpenter (Rough)	24	8	3	5		3	5
1 Car Washer and Waxer	12	5	4	1	4	1	
5 Chisler	9	2	2				1
3 Concrete Mixer and Finisher	9	3	3			1	1
3 Concrete Mixer	2	1	1			1	
8 Conveyor Operator	20	1	1				1
2 Cookie, Roll and Doughnut Wrapper	1	1	1			1	
5 Core Maker	15	4	4			1	3
8 Corn Starch Mixer	2	2	1				2
8 Corrigator	50	3	3			1	3
3 Cracker (Stone)	2	1	1				1
5 Crane Operator	4	3	1	2		1	2
8 Creaser	8	1	1				1
8 Die Maker (Paper Press)	19	4	4				4
6 Dipper and Dryer (Paint)	3	1	1			1	
8 Draw Press Operator	18	1	1				1
3 Driller	2	2	1			1	
6 Drill Press Operator	2	1	1				1
8 Embossing Machine Operator	4	1	1			1	
3 Expansion Maker	4	1	1				1
2 Feed Grinder	4	1	1				1
2 Fireman (Boiler)	2	1	1				1
7 Flat Press Operator	4	1	1			1	
2 Flour Packer	3	1	1				1
5 Furnace Tapper	9	4	4			1	3
6 Furnace Tapper and Pourer	2	1	1				1
6 Furniture Repairer	3	2	2				2
10 Gas Water Operator	5	1	1				1
6-8 Gluer	138	4	4			3	1
6 Gluer and Sander	4	1	1				1
1 Greaser	9	5	5			4	1
5 Grinder	24	4	4				4
9 Hand Type Setter	2	1	1	2			
6-8-9 Hand Type Setter and Platen Pressman	28	6	1	3		2	3
1 Heat Treater	6	1	1				1
4 Homogenizer and Pasteurizer	4	4	1				1
4 Ice Cream and Butter Packer	5	1					
4 Ice Cream Maker	10	2					
8 Ink Mixer	8	1	1			1	
6 Joint Maker	2	1	1				1
1-5 Ladler	21	5	5				4
8 Liner	4	1	1				1
8 Machine Tender	49	3	3			1	2
7 Marker and Sorter	2	1	1			1	
7 Metal Shaper	10	1	1				1
5 Metal Spinner (Sharpener)	6	1	1				1
8 Metal Upsetters	4	1	1				1
8 Millwright	7	1	1				1
1-5 Molder	292	5	5			2	2
2 Molding Machine Operator (Bread)	2	2	2				1
2 Oiler and Sweeper	2	1	1				1
2 Oven Operator and Steam Room Operator	6	1	1				1
3-6 Painter	5	4	5			3	2
6 Painter and Sprayer	4	1	1				1
9 Paper Cutter (Hand)	2	2	3			3	
8 Paper Cutting Machine Operator	81	3	3			3	
4 Pasteurizer	2	1					
6 Pillow Stuffer	4	1	1			1	
6 Plainer Operator	1	1	1				1
8 Pressman (Bronze)	112	3	1	2		2	1
8 Pressman (Color)	20	1	1			1	
9 Pressman (Platen)	2	1	1				1
8 Pressman (Miehle)	160	3	1	2		2	1
6-8 Pressman (Machine)	18	2	2				2
1-6-8 Punch Press Operator	17	4	4			1	3
6 Rivetor	1	1	1				1
2 Roll Twister	2	1	2				2
6 Roofer	15	4	1	3		2	2
5 Sand Blaster	4	1	1				1
6 Sander	2	1	1				1
5 Scrap Stockkeeper and Feeder	2	1	1			1	
1 Service Man and Greaser	3	1	1			1	
6-8 Sewer (Machine)	58	2	1			1	1
1 Shock Sprayer	2	1	1				1
7 Shaker	2	1	1			1	
7 Shirt Press Operator	2	1	1			1	
3 Sign Constructor	4	1	1			1	
3 Sign Erector and Repairer	6	1	1			1	
3-6 Slater	2	2	2				2
3 Smoother	1	1	1				1
7 Soft Press Operator	2	1	1			1	
6 Spray Painter	4	1	1				1
6 Stainer (Wood)	3	1	1			1	
5 Stamp Press Operator	14	1	1				1
7 Starch Press Operator	2	1	1			1	
3 Steam Shovel Operator	1	1	1			1	
6 Steel Cutter and Rivetor	2	1	1			1	
1-5-6 Stockkeeper	9	5	5			1	4
9 Stockkeeper and Cutter (Hand)	2	1	1			1	1
6 Stockkeeper and Cutter (Upholstery)	3	1	1			1	
10 Stoker (Coal)	4	1	1				1
1 Sway Bar Shaper	5	1	1				1
6 Tag Bender (Machine)	2	1	1				1
5 Tool Keeper	4	2	2				2
5 Trip-hammer Operator	4	1	1				1
5 Truck Driver (Electric)	2	1	1				1
6 Upholsterer	17	2	2				2
6 Upholsterer and Furniture Repairer	2	1	1				1
6 Veneer Maker	4	1	1				1
7 Washing Machine Operator	1	1	1			1	
8 Wax Machine Operator	28	2	2			1	1
1-5 Welder (Oxyacetylene) (Helpers)	10	2	2				2
5 Welder (Electric)	2	1	1				1
6 Welder (Spot)	1	1	1				1
6 Wood Carver (Hand)	5	1	1				1
6 Wood Carver (Machine)	3	1	1				1
6 Yard Man (Lumber)	12	4	2	2			4

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Table 18-Technical Knowledge Required of Semi-skilled Workers
in Monroe, Michigan

		No. Employed	No. of Films	Drafting	Blue Prints	Tech Instruments	Engineering	Materials	Equipment	Supplies	Business
5	Annealer	2	1					1			
1	Assemblyman (Piston)	20	1								
1	Assemblyman (Shock Absorber)	25	1					1			
1	Assemblyman (Value)	4	1								
8	Back Tender	30	3								
6	Band Saw Operator	4	1					1	1	1	
1	Batteryman	1	1					1	1	1	
8	Beater Superintendent	4	3					2	1		
5-6	Blacksmith	4	2					3	2	3	
4	Bottler	4	2								
4	Bottle Washer	1	1								
2	Bread Wrapper	2	2					2	2	1	
3	Bulldozer	2	1								
1	Bumper (Helper)	1	1					1	1	1	
3-6	Carpenter (Rough)	24	8	1	4			8	7	8	
1	Car Washer and Waxer	12	5					5	3	2	
5	Chisler	9	2		1			2	2	2	
3	Concrete Mixer and Finisher	9	3					1	1	1	
3	Concrete Mixer	2	1					1	1	1	
8	Conveyor Operator	20	1								
2	Cookie, Roll and Doughnut Wrapper	1	1						1	1	
5	Core Maker	15	4					3	1	2	
8	Corn Starch Mixer	2	2					1	1		
8	Corrugator	50	3					1	1		
3	Cracker (Stone)	2	1					1	1		
5	Crane Operator	4	3					3	2	2	
8	Creaser	8	1								
8	Die Maker (Paper Press)	19	4					3	3		
6	Dipper and Dryer (Paint)	2	1					1	1	1	
8	Draw Press Operator	18	1					1	1		
3	Driller (Stone)	2	2					1	1	1	
6	Drill Press Operator	2	1					1	1	1	
8	Embossing Machine Operator	4	1					1	1	1	
3	Expansion Maker	4	1			1		1	1		
2	Feed Grinder	4	1					1	1	1	
2	Fireman (Boiler)	2	1				1	1	1		
7	Flat Press Operator	4	1					1	1		
2	Flour Packer	3	1					1	1	1	
5	Furnace Tapper	9	4					4	2	3	
6	Furnace Tapper and Pourer	2	1					1	1	1	
6	Furniture Repairer	3	2					2	1	1	
10	Gas Water Operator	5	1					1	1	1	
6-8	Gluer	138	4					2	2	1	
6	Gluer and Sander	4	1					1	1	1	
1	Greaser	9	5					4	5	5	
5	Grinder	24	4			3		4	4	3	
9	Hand Type Setter	2	1								
6-8-9	Hand Type Setter and Platen Pressman	28	6					5	4	1	
1	Heat Treater	6	1						1		
4	Homogenizer and Pasteurizer	4	4					1	1		
4	Ice Cream and Butter Packer	5	1								
4	Ice Cream Maker	10	2					2	2	2	
8	Ink Mixer	8	1				1	1		1	
6	Joint Maker	2	1					1		1	
1-5	Ladler	21	5					1	2		
8	Liner	4	1								
8	Machine Tender	49	3								
7	Marker and Sorter	2	1					1			
1	Metal Shaper	10	1					1	1		
5	Metal Spinner (Sharpener)	6	1		1			1	1	1	
8	Metal Upsetters	4	1								
8	Millwright	7	1					1	1	1	
1-5	Molder	292	5					2	1	1	
2	Molding Machine Operator (Bread)	2	2					2	2		
2	Oiler and Sweeper	2	1						1		
2	Oven Operator and Steam Room Operator	1	1					1			
3-6	Painter	5	4					1	1		
6	Painter and Sprayer	4	1					1	1	1	
9	Paper Cutter (Hand)	2	2					3	2	1	
8	Paper Cutting Machine Operator	81	3					3	3		
4	Pasteurizer	2	1								
6	Pillow Stuffer	4	1					1	1	1	
6	Plainer Operator	1	1					1	1	1	
8	Pressman (Bronze)	112	3					1	1	1	
8	Pressman (Color)	20	1								
9	Pressman (Platen)	2	1								
8	Pressman (Miehle)	160	3					1	1		
6-8	Pressman (Machine)	18	2					1	1	1	
1-6-8	Punch Press Operator	17	4					2	3	1	
6	Rivertor	1	1					1	1	1	
2	Roll Twister	2	2					1			
6	Roofer	15	4	1	1			3	3	3	
5	Sand Blaster	4	1					1			
6	Sander	2	1					1	1	1	
5	Scrap Stockkeeper and Feeder	2	1					1			
1	Service Man and Greaser	3	1						1	1	
6-8	Sewer (Machine)	58	2					1		1	
1	Shock Sprayer	2	1						1		
7	Shaker	2	1								
7	Shirt Press Operator	2	1					1	1		
3	Sign Constructor	4	1		1			1	1	1	
3	Sign Erector and Repairer	6	1					1	1	1	
3-6	Slater	2	2		1			2	1	1	
3	Smoother	1	1					1	1		
7	Soft Press Operator	2	1					1	1		
6	Spray Painter	4	1					1	1	1	
6	Stainer (Wood)	3	1					1	1	1	
5	Stamp Press Operator	14	1					1	1	1	
7	Starch Press Operator	2	1					1	1		
3	Steam Shovel Operator	1	1								
6	Steel Cutter and Rivetor	2	1					1	1	1	
1-5-6	Stockkeeper	9	5					5	2	5	2
9	Stockkeeper and Cutter (Hand)	2	1								
6	Stockkeeper and Cutter (Upholstery)	3	1					3	3	3	
10	Stoker (Coal)	4	1					1	1	1	
1	Sway Bar Shaper	5	1					1	1		
6	Tag Bender (Machine)	2	1						1		
5	Tool Keeper	4	2					1	2	2	
5	Trip-hammer Operator	4	1								
5	Truck Driver (Electric)	2	1					1	1	1	
6	Upholsterer	17	2					2	2	1	
6	Upholsterer and Furniture Repairer	2	1					1	1	1	
6	Veneer Maker	4	1					1	1	1	
7	Washing Machine Operator	1	1					1	1		
8	Wax Machine Operator	28	2					1		1	
1-5	Welder (Oxycetylene) (Helpers)	10	2					2	1	1	
5	Welder (Electric)	2	1					1	1	1	
6	Welder (Spot)	1	1					1	1	1	
6	Wood Carver (Hand)	5	1					1	1	1	
6	Wood Carver (Machine)	3	1					1	1	1	
6	Yard Man (Lumber)	12	4		3			4	4	4	1

Table 19-Physical Requirements of Semi-skilled Workers
in Monroe, Michigan

		No. Employed	No. of Films	Standing	Sitting	Moving	Stooping	Walking	Climbing	Reaching	Lifting	Rapid Temp. Change
5	Annealer	2	1	1			1	1		1	1	
1	Assemblyman (Piston)	20	1	1	1					1	1	
1	Assemblyman (Shock Absorber)	25	1	1				1		1	1	
1	Assemblyman (Valve)	4	1	1		1	1	1		1	1	
8	Back Tender	30	3	3		3	3	2	3	3	2	3
6	Band Saw Operator	4	1	1		1	1	1		1	1	
1	Battery Man	1	1	1		1	1	1	1	1	1	
8	Beater Superintendent	4	3	3		3	3	3		1	1	
5-6	Blacksmith	4	2	3		3	3	3		2	3	3
4	Bottler	4	2	2		2	2	2		1	2	
4	Bottle Washer	1	1	1		1	1	1	1	1	1	1
2	Bread Wrapper	2	2	2		1	1	1		2	2	1
3	Bulldozer	2	1	1	1				1		1	
1	Bumper (Helper)	1	1	1		1	1	1		1	1	
3-6	Carpenter (Rough)	24	8	8	1	8	8	8	8	8	8	
1	Car Washer and Waxer	12	5	5		5	5	5	5	5	5	1
5	Chisler	9	2	2	1							
3	Concrete Mixer and Finisher	9	3	3		3	3	3		3	3	
3	Concrete Mixer	2	1	1		1	1	1	1	1	1	
8	Conveyor Operator	20	1	1		1	1			1	1	
2	Cookie, Roll and Doughnut Wrapper	1	1	1		1				1	1	
5	Core Maker	15	4	4		3	4			3	4	3
8	Corn Starch Mixer	12	2	2		2	1			3	2	2
8	Corrigator	50	3	3	2	3	3	3	1	3	3	3
3	Cracker (Stone)	2	1	1		1	1	1	1		1	
5	Crane Operator	4	3	3	3	1	2		3			3
8	Creaser	8	1	1		1	1			1	1	
8	Die Maker (Paper Press)	19	4	4	4	4	2	4	2	3	1	
6	Dipper and Dryer (Paint)	2	1	1		1	1	1		1	1	
8	Draw Press Operator	18	1	1		1	1	1		1	1	
3	Driller (Stone)	2	2	1		1	1	1	1		1	
6	Drill Press Operator	2	1	1		1	1			1	1	
8	Embossing Machine Operator	4	1	1		1	1	1		1	1	1
3	Expansion Maker	4	1	1		1	1	1		1	1	
2	Feed Grinder	4	1	1		1	1	1		1	1	
2	Fireman (Boiler)	2	1	1		1	1	1		1	1	
7	Flat Press Operator	4	1									
2	Flour Packer	3	1	1		1	1	1		1	1	
5	Furnace Tapper	9	4	3		4	4	4		4	4	
6	Furnace Tapper and Pourer	2	1	1		1	1	1	1	1	1	1
6	Furniture Repairer	3	2	2	2	2	2	2		2	2	
10	Gas Water Operator	5	1	1		1	1	1	1	1	1	1
6-8	Gluer	138	4	2		3	1	3	1	3	3	1
6	Gluer and Sander	4	1	1		1	1	1		1	1	
1	Greaser	9	5	4		5	5	5	5	5	5	1
5	Grinder	24	4	4		4	4	3		3	4	
9	Hand Type Setter	2	1	1		1	1	1		1	1	
6-8-9	Hand Type Setter and Platen Pressman	28	6	6		5	2	2		6	6	
1	Heat Treater	6	1	1		1	1	1		1	1	1
4	Homogenizer and Pasteurizer	4	4	1		1	1	1		1	1	1
4	Ice Cream and Butter Packer	5	1	1	1	1	1	1		1	1	1
4	Ice Cream Maker	10	2	2		2	2	2		2	1	1
8	Ink Mixer	8	1	1		1	1	1		1	1	
6	Joint Maker	2	1	1		1	1	1		1	1	
1-5	Ladler	21	5	5		5	5	5	4	4	5	5
8	Liner	4	1	1		1	1	1		1	1	
8	Machine Tender	49	3	3		3	3	3	3	3	3	3
7	Marker and Sorter	2	1	1		1	1	1		1	1	
1	Metal Shaper	10	1	1		1	1	1		1	1	
5	Metal Spinner (Sharpener)	6	1	1		1	1			1	1	
8	Metal Upsetters	4	1	1		1	1	1		1	1	
8	Millwright	7	1	1	1	1	1	1	1	1	1	1
1-5	Molder	292	5	2		1	2	1		1	2	
2	Molding Machine Operator (Bread)	2	2	1		1				1	1	
2	Oiler and Sweeper	2	1	1		1	1	1	1	1	1	1
2	Oven Operator and Steam Room Operator	1	1	1		1	1	1	1	1	1	1
3-6	Painter	5	4	4	4	4	4	4	4	4	4	
6	Painter and Sprayer	4	1	1		1	1	1		1	1	
9	Paper Cutter (Hand)	2	2	3		3	3	2	2	3	3	
8	Paper Cutting Machine Operator	81	3	3	2	3	3	2	2	3	3	
4	Pasteurizer	2	1	1		1	1	1		1	1	1
6	Pillow Stuffer	4	1	1		1	1	1		1	1	
6	Planer Operator	1	1	1		1	1		1	1	1	
8	Pressman (Bronze)	112	3	3		3	2	2	2	2	3	
8	Pressman (Color)	20	1	1		1				1	1	
9	Pressman (Platen)	2	1	1		1	1			1	1	
8	Pressman (Miehle)	160	3	3		3			1	3	2	
6-8	Pressman (Machine)	18	2	2		2	1	2		2	1	
1-6-8	Punch Press Operator	17	4	3	3	2	1	1		2	3	
6	Riveter	1	1	1		1	1	1		1	1	
2	Roll Twister	2	2	2								1
6	Roofer	15	4	4	4	4	4	4	4	4	4	
5	Sand Blaster	4	1	1		1	1			1	1	
6	Sander	2	1	1		1	1	1		1	1	
5	Scrap Stockkeeper and Feeder	2	1	1		1	1	1		1	1	1
1	Service Man and Greaser	3	1	1		1	1	1	1	1	1	
6-8	Sewer (Machine)	58	2		2	1	1	1		1	1	
1	Shock Sprayer	2	1	1		1	1	1		1	1	
7	Shaker	2	1	1		1	1			1	1	
7	Shirt Press Operator	2	1	1		1				1	1	1
3	Sign Constructor	4	1	1		1	1	1		1	1	
3	Sign Erector and Repairer	6	1	1		1	1	1	1	1	1	
3-6	Slater	2	2	2	1	2	2	2	2	2	2	
3	Smoother	1	1	1		1	1			1	1	
7	Soft Press Operator	1	1			1	1			1	1	
6	Spray Painter	4	1	1		1	1	1		1	1	
6	Stainer (Wood)	3	1	1		1	1	1		1	1	
5	Stamp Press Operator	14	1	1		1	1	1		1	1	
7	Starch Press Operator	2	1	1		1	1	1		1	1	1
3	Steam Shovel Operator	1	1	1	1	1	1	1	1	1	1	
6	Steel Cutter and Riveter	2	1	1		1	1			1	1	
1-5-6	Stockkeeper	9	5	4	2	4	4	4	4	4	4	
6	Stockkeeper and Cutter (Upholstery)	3	1	1	1	1	1	1	1	1	1	
9	Stockkeeper and Cutter (Hand)	2	1	2		2	2	2	1	2	2	
10	Stoker (Coal)	4	1	1		1	1	1	1	1	1	1
1	Sway Bar Shaper	5	1	1		1	1	1		1	1	1
6	Tag Bender (Machine)	2	1		1	1				1	1	
5	Tool Keeper	4	2	2	2	2	2	2	2	2	2	
5	Trip-hammer Operator	4	1	1		1	1			1	1	
5	Truck driver (Electric)	2	1	1	1	1	1			1	1	1
6	Upholsterer	17	2	2	2	2	1	1		1	2	
6	Upholsterer and Furniture Repairer	2	1	1	1	1	1			1	1	
6	Veneer Maker	4	1	1		1	1	1		1	1	
7	Washing Machine Operator	1	1	1		1	1	1		1	1	1
8	Wax Machine Operator	28	2	2		2	2	2	1	2	2	
1-5	Welder (Oxyacetylene)(Helpers)	10	2	2	2	2	2	2	1	2	2	2
5	Welder (Electric)	2	1	1	1	1	1			1	1	1
6	Welder (Spot)	1	1		1	1				1	1	
6	Wood Carver (Hand)	5	1									
6	Wood Carver (Machine)	3	1	1			1					
6	Yard Man (Lumber)	12	4	4		4	4	4	4	4	4	

Table 20-Versatility Required of Semi-Skilled Workers
in Monroe, Michigan

		No. Employed	No. of Firms	One Job	Two Jobs	Three Jobs	Over Three Jobs
5	Annealer	2	1	x			
1	Assemblyman (Piston)	20	1	x			
1	Assemblyman (Shock Absorber)	25	1	x			
1	Assemblyman (Valve)	4	1	x			
8	Back Tender	30	3	x			
6	Band Saw Operator	4	1		x		
1	Batteryman	1	1	x			
8	Beater Superintendent	4	3	x			
5-6	Blacksmith	4	2		x		
4	Bottler	4	2		x		
4	Bottle Washer	1	1	x			
2	Bread Wrapper	2	2	x			
3	Bulldozer	2	1	x			
1	Bumper (Helper)	1	1		x		
3-6	Carpenter (Rough)	24	8			x	
1	Car Washer and Waxer	12	5		x		
5	Chisler	9	2	x			
3	Concrete Mixer and Finisher	9	3		x		
3	Concrete Mixer	2	1	x			
8	Conveyor Operator	20	1	x			
2	Cookie, Roll and Doughnut Wrapper	1	1	x			
5	Core Maker	15	4		x		
8	Corn Starch Mixer	2	2	x			
8	Corrigator	50	3	x			
3	Cracker (Stone)	2	1	x			
5	Crane Operator	4	3		x		
8	Creaser	8	1	x			
8	Die Maker (Paper Press)	19	4	x			
6	Dipper and Dryer (Paint)	2	1	x			
8	Draw Press Operator	18	1	x			
3	Driller (Stone)	2	2	x			
6	Drill Press Operator	2	1	x			
8	Embossing Machine Operator	4	1	x			
3	Expansion Maker	4	1	x			
2	Feed Grinder	4	1		x		
2	Fireman (Boiler)	2	1	x			
7	Flat Press Operator	4	1	x			
2	Flour Packer	3	1		x		
5	Furnace Tapper	9	4	x			
6	Furnace Tapper and Purer	2	1		x		
6	Furniture Repairer	3	2			x	
10	Gas Water Operator	5	1	x			
6-8	Gluer	138	4	x			
6	Gluer and Sander	4	1		x		
1	Greaser	9	5		x		
5	Grinder	24	4		x		
9	Hand Type Setter	2	1	x			
6-8-9	Hand Type Setter and Platen Pressman	28	6		x		
1	Heat Treater	6	1	x			
4	Homoginizer and Pasteurizer	4	4		x		
4	Ice Cream and Butter Packer	5	1	x			
4	Ice Cream Maker	10	2			x	
8	Ink Mixer	8	1		x		
6	Joint Maker	2	1	x			
1-5	Ladler	21	5		x		
8	Liner	4	1	x			
8	Machine Tender	49	3	x			
7	Marker and Sorter	2	1	x			
1	Metal Shaper	10	1	x			
5	Metal Spinner (Sharpener)	6	1	x			
8	Metal Upsetters	4	1	x			
8	Millwright	7	1	x			
1-5	Molder	292	5	x			
2	Molding Machine Operator (Bread)	2	2			x	
2	Oiler and Sweeper	2	1			x	
2	Oven Operator and Steam Room Operator	1	1		x		
3-6	Painter	5	4		x		
6	Painter and Sprayer	4	1		x		
9	Paper Cutter (Hand)	2	2	x			
8	Paper Cutting Machine Operator	81	3	x			
4	Pasteurizer	2	1	x			
6	Pillow Stuffer	4	1		x		
6	Planer Operator	111	1	x			
8	Pressman (Bronze)	112	3	x			
8	Pressman (Color)	20	1	x			
9	Pressman (Platen)	2	1	x			
8	Pressman (Miehle)	160	3	x			
6-8	Pressman (Machine)	18	2		x		
1-6-8	Punch Press Operator	17	4	x			
6	Riveter	1	1	x			
2	Roll Twister	2	1	x			
6	Roofer	15	4	x			
5	Sand Blaster	4	1	x			
6	Sander	2	1		x		
5	Scrap Stockkeeper and Feeder	2	1	x			
1	Service Man and Greaser	3	1		x		
6-8	Sewer (Machine)	58	2	x			
1	Shock Sprayer	2	1	x			
7	Shaker	2	1	x			
7	Shirt Press Operator	2	1	x			
3	Sign Constructor	4	1	x			
3	Sign Erector and Repairer	6	1	x			
3-6	Slater	2	2	x			
3	Smoother	1	1	x			
7	Soft Press Operator	2	1	x			
6	Spray Painter	4	1	x			
6	Stainer (Wood)	3	1	x			
5	Stamp Press Operator	14	1	x			
7	Starch Press Operator	2	1	x			
3	Steam Shovel Operator	1	1	x			
6	Steel Cutter and Riveter	2	1	x			
1-5-6	Stockkeeper	9	5		x		
9	Stockkeeper and Cutter	2	1		x		
6	Stockkeeper and Cutter (Upholstery)	3	1		x		
10	Stoker (Coal)	4	1		x		
1	Sway Bar Shaper	5	1	x			
6	Tag Bender (Machine)	2	1	x			
5	Tool Keeper	4	2		x		
5	Trip-Hammer Operator	4	1	x			
5	Truck Driver (Electric)	2	1	x			
6	Upholsterer	17	2	x			
6	Upholsterer and Furniture Repairer	2	1		x		
6	Veneer Maker	4	1	x			
7	Washing Machine Operator	1	1	x			
8	Wax Machine Operator	28	2	x			
1-5	Welder (Oxyacetylene) (Helpers)	10	2	x			
5	Welder (Electric)	2	1	x			
6	Welder (Spot)	1	1	x			
6	Wood Carver (Hand)	5	1	x			
6	Wood Carver (Machine)	3	1	x			
6	Yard Man (Lumber)	12	4			x	

4 Ice Cream Maker

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Table 21 - Personal Requirements of Semi-skilled
Workers in Monroe, Michigan

		No. Employed	No. of Firms	Weight	Height	Strength	Eyesight	Hearing	General Health	Sex	Age Preferred (Ave.)
5	Annealer	2	1							M	30
1	Assemblyman (Piston)	20	1							M	25
1	Assemblyman (Shock Absorber)	25	1				1			M	30
1	Assemblyman (Valve)	4	1							M	35
8	Back Tender	30	3							M	30
6	Band Saw Operator	4	1				1			M	30
1	Batteryman	1	1							M	30
8	Beater Superintendent	4	3							M	30
5-6	Blacksmith	4	2	1			2	2		M	30
4	Bottler	4	2							M	32
4	Bottle Washer	1	1							M	32
2	Bread Wrapper	2	2							M	25
3	Bulldozer	2	1							M	32
1	Bumper (Helper)	1	1			1				M	32
3-6	Carpenter (Rough)	24	8							M	34
1	Car Washer and Waxer.	12	5							M	25
5	Chisler	9	2				1	1		M	32
3	Concrete Mixer and Finisher	9	3							M	32
3	Concrete Mixer	2	1							M	30
8	Conveyor Operator	20	1							M	25
2	Cookie, Roll and Doughnut Wrapper	1	1							M	22
5	Core Maker	15	4							M	32
8	Corn Starch Mixer	2	2							M	32
8	Corrigator	50	3							M	30
3	Cracker (Stone)	2	1	1		1	1			M	30
5	Crane Operator	4	3				1			M	32
8	Creaser	8	1							M	25
8	Die Maker (Paper Press)	19	4							M	30
6	Dipper and Dryer (Paint)	2	1							M	25
8	Draw Press Operator	18	1							M	27
3	Driller (Stone)	2	2							M	32
6	Drill Press Operator	2	3							M	30
8	Embossing Machine Operator	4	1							M	30
3	Expansion Maker	4	1							M	38
2	Feed Grinder	4	1							M	35
2	Fireman (Boiler)	2	1							M	30
7	Flat Press Operator	4	1							F	25
2	Flour Packer	3	1				1			M	32
5	Furnace Tapper	9	4			1	1	1		M	32
6	Furnace Tapper and Pourer	2	1			1	1			M	35
6	Furniture Repairer	3	2							M	30
10	Gas Water Operator	5	1							M	32
6-8	Gluer	138	4							M	25
6	Gluer and Sander	4	1							M	30
1	Greaser	9	5							M	25
6	Grinder	24	4				1	1		M	30
9	Hand Type Setter	2	1				1			M	30
6-8-9	Hand Type Setter and Platen Pressman	28	6				1	1	1	M	25
1	Heat Treater	6	1				1			M	30
4	Homogenizer and Pasteurizer	4	4							M	32
4	Ice Cream and Butter Packer	5	1							MF	25
4	Ice Cream Maker	10	2							M	30
8	Ink Mixer	8	1							M	30
6	Joint Maker	2	1				1			M	30
1-5	Ladler	21	5	2		3	2	1		M	32
8	Liner	4	1							M	25
8	Machine Tender	49	3							M	30
7	Marker and Sorter	2	1							F	25
1	Metal Shaper	10	1							M	30
5	Metal Spinner	6	1							M	30
8	Metal Upsetters	4	1							M	25
8	Millwright	7	1							M	37
1-5	Molder	292	5			1				M	30
2	Molding Machine Operator (Bread)	2	2							M	25
2	Oiler and Sweeper	2	1							M	30
2	Oven Operator and Steam Room Operator	1	1							M	25
3-6	Painter	5	4							M	30
6	Painter and Sprayer	4	1							M	30
9	Paper Cutter (Hand)	2	2							M	30
8	Paper Cutting Machine Operator	81	3				2	3		M	30
4	Pasteurizer	2	1							M	32
6	Pillow Stuffer	4	1							F	30
6	Plainer Operator	1	1							M	30
8	Pressman (Bronze)	112	3				1	1	1	M	25
8	Pressman (Color)	20	1							M	25
9	Pressman (Platen)	2	1				1			M	32
8	Pressman (Miehle)	160	3				1	1	1	M	25
6-8	Pressman (Machine)	18	2							MF	30
1-6-8	Punch Press Operator	17	4							M	25
6	Riveter	1	1				1			M	30
2	Roll Twister	2	2							M	25
6	Roofer	15	4							M	32
5	Sand Blaster	4	1				1			M	30
6	Sander	2	1								30
5	Scrape Stockkeeper and Feeder	2	1								30
1	Service Man and Greaser	3	1								25
6-8	Sewer (Machine)	58	2							F	25
1	Shock Sprayer	2	1							M	30
7	Shaker	2	1							F	24
7	Shirt Press Operator	2	1							F	24
3	Sign Constructor	4	1							M	32
3	Sign Erector and Repairer	6	1							M	32
3-6	Slater	2	2							M	35
3	Smoother	1	1							M	32
7	Soft Press Operator	2	1							F	25
6	Spray Painter	4	1							M	30
6	Stainer (Wood)	3	1				1			M	30
5	Stamp Press Operator	14	1			1	1			M	30
7	Starch Press Operator	2	1							F	25
3	Steam Shovel Operator	1	1							M	30
6	Steel Cutter and Riveter	2	1							M	30
1-5-6	Stockkeeper	9	5							M	30
9	Stockkeeper and Cutter (Hand)	2	1							M	32
6	Stockkeeper and Cutter (Upholstery)	3	1							M	30
10	Stoker (Coal)	4	1							M	32
1	Sway Bar Shaper	5	1				1			M	30
6	Tag Bender (Machine)	2	1							F	25
5	Tool Keeper	4	2							M	35
5	Trip-hammer Operator	4	1			1	1			M	30
5	Truck driver (Electric)	2	1							M	30
6	Upholsterer	17	2							M	30
6	Upholsterer and Furniture Repairer	2	1							M	20
6	Veneer Maker	4	1							M	30
7	Washing Machine Operator	1	1							M	25
8	Wax Machine Operator	28	2							M	30
1-5	Welder (Oxyacetylene) (Helpers)	10	2				1			M	30
5	Welder (Electric)	2	1				1			M	32
6	Welder (Spot)	1	1				1			M	30
6	Wood Carver (Hand)	5	1				1			M	42
6	Wood Carver (Machine)	3	1				1			M	32
6	Yard Man (Lumber)	12	4			2	1			M	35

Table 22 - Emotional Requirements of Semi-skilled

Workers in Monroe, Michigan

		No. Employed	No. of Firms	Calm	Genial	Staid	Happy
5	Annealer	2	1				2
1	Assemblyman (Piston)	20	1				20
1	Assemblyman (Shock Absorber)	25	1				25
1	Assemblyman (Valve)	1	1				1
8	Back Tender	30	3				30
6	Band Saw Operator	4	1				4
1	Battery Man	1	1				1
8	Beater Superintendent	4	3				4
5-6	Blacksmith	4	2				4
4	Bottler	4	2				4
4	Bottle Washer	1	1				1
2	Bread Wrapper	2	2				2
3	Bulldozer	2	1				2
1	Bumper (Helper)	1	1				1
3-6	Carpenter (Rough)	24	8				24
1	Car Washer and Waxer	12	5				12
5	Chisler	9	2				9
3	Concrete Mixer and Finisher	9	3				9
3	Concrete Mixer	2	1				2
8	Conveyor Operator	20	1				20
2	Cookie, Roll and Doughnut Wrapper	21	1				1
5	Core Maker	15	4				15
8	Corn Starch Mixer	2	2				2
8	Corrigator	50	3				50
3	Cracker (Stone)	2	1				2
5	Crane Operator	4	3				4
8	Creaser	8	1				8
8	Die Maker (Paper Press)	19	4				19
6	Dipper and Dryer (Paint)	2	1				2
8	Draw Press Operator	18	1				18
3	Driller (Stone)	2	2				2
6	Drill Press Operator	2	1				2
8	Embossing Machine Operator	4	1				4
3	Expansion Maker	4	1				4
2	Feed Grinder	4	1				4
2	Fireman (Boiler)	2	1				2
7	Flat Press Operator	4	1				4
2	Flour Packer	3	1				3
5	Furnace Tapper	9	4				9
6	Furnace Tapper and Pourer	2	1				2
6	Furniture Repairer	3	2				3
10	Gas Water Operator	5	1				5
6-8	Gluer	138	4				138
6	Gluer and Sander	4	1				4
1	Greaser	9	5				9
5	Grinder	24	4				24
9	Hand Type Setter	2	1				2
6-8-9	Hand Type Setter and Platen Pressman	28	6				28
1	Heat Treater	6	1				6
4	Homogenizer and Pasteurizer	4	4				4
4	Ice Cream and Butter Packer	5	1				5
4	Ice Cream Maker	10	2				10
8	Ink Mixer	8	1				8
6	Joint Maker	2	1				2
1-5	Ladler	21	5	4			21
8	Liner	4	1				4
8	Machine Tender	49	3				49
7	Marker and Sorter	2	1				2
1	Metal Shaper	10	1				10
5	Metal Spinner (Sharpener)	6	1				6
8	Metal Upsetters	4	1				4
8	Millwright	7	1				7
1-5	Molder	292	5				292
2	Molding Machine Operator (Bread)	2	2				2
2	Oiler and Sweeper	2	1				2
2	Oven Operator and Steam Room Operator	1	1				1
3-6	Painter	5	4				5
6	Painter and Sprayer	4	1				4
9	Paper Cutter (Hand)	2	2				2
8	Paper Cutting Machine Operator	81	3				81
4	Pasteurizer	2	1				2
6	Pillow Stuffer	4	1				4
6	Planer Operator	1	1				1
8	Pressman (Bronze)	112	3				112
8	Pressman (Color)	20	1				20
9	Pressman (Platen)	2	1				2
8	Pressman (Miehle)	160	3				160
6-8	Pressman (Machine)	18	2				18
1-6-8	Punch Press Operator	17	4				17
6	Riveter	1	1				1
2	Roll Twister	2	2				2
6	Roofer	15	4				15
5	Sand Blaster	4	1				4
6	Sander	2	1				2
5	Scrap Stockkeeper and Feeder	2	1				2
1	Service Man and Greaser	3	1				3
6-8	Sewer (Machine)	58	2				58
1	Shock Sprayer	2	1				2
7	Shaker	2	1				2
7	Shirt Press Operator	2	1				2
3	Sign Constructor	4	1				4
3	Sign Erector and Repairer	6	1				6
3-6	Slater	2	2				2
3	Smoother	1	1				1
7	Soft Press Operator	2	1				2
6	Spray Painter	4	1				4
6	Stainer (Wood)	3	1				3
5	Stamp Press Operator	14	1				14
7	Starch Press Operator	2	1				2
3	Steam Shovel Operator	1	1				1
6	Steel Cutter and Riveter	2	1				2
1-5-6	Stockkeeper	9	5				9
9	Stockkeeper and Cutter (Hand)	2	1				2
6	Stockkeeper and Cutter (Upholstery)	3	1				3
10	Stoker (Coal)	4	1				4
1	Sway Bar Shaper	5	1				5
6	Tag Bender (Machine)	2	1				2
5	Tool Keeper	4	2				4
5	Trip-hammer Operator	4	1				4
5	Truck Driver (Electric)	2	1				2
6	Upholsterer	17	2				17
6	Upholsterer and Furniture Repairer	2	1				2
6	Veneer Maker	4	1				4
7	Washing Machine Operator	1	1				1
8	Wax Machine Operator	28	2				28
1-5	Welder (Oxyacetylene) (Helpers)	10	2				10
5	Welder (Electric)	2	1				2
6	Welder (Spot)	1	1				1
6	Wood Carver (Hand)	5	1				5
6	Wood Carver (Machine)	3	1				3
6	Yard Man (Lumber)	12	4				12

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Table 23 - Educational Requirements of Semi-skilled Workers in Monroe, Michigan

		No. Employed	No. of Firms	Grade	High School	Vocational	Technical	College
5	Annealer	2	1					
1	Assemblyman (Piston)	20	1					
1	Assemblyman (Shock Absorber)	25	1	1				
1	Assemblyman (Valve)	4	1					
8	Back Tender	30	3					
6	Band Saw Operator	4	1					
1	Battery Man	1	1					
1	Battery Man	1	1		1			
8	Beater Sup't. (Paper)	4	1					
5-6	Blacksmith (Helper)	4	2	2				
7	Bottler	4	2					
4	Bottle Washer	1	1					
2	Bread Wrapper	2	2	1				
3	Bulldozer	2	1					
1	Bumper (Helper)	1	1	1				
3-6	Carpenter (Rough)	24	8	5				
1	Car Washer and Waxer	12	5	1				
5	Chisler	9	2	1				
3	Concrete Mixer and Finisher	9	3					
3	Concrete Mixer	2	1					
8	Conveyor Operator	20	1					
2	Cookie, Roll and Doughnut Wrapper	1	1					
5	Core Maker	15	4					
8	Corn Starch Mixer	2	2					
8	Corrigator	50	3					
3	Cracker (Stone)	2	1					
5	Crane Operator	4	3	2				
8	Creaser	8	1					
8	Die Maker (Paper Press)	19	4					
6	Dipper and Dryer (Paint)	2	1					
8	Draw Press Operator	18	1					
3	Driller (Stone)	2	2					
8	Draw Press Operator	18	1					
8	Embossing Machine Operator	4	1					
3	Expansion Maker	4	1					
2	Feed Grinder	4	1					
2	Fireman (Boiler)	2	1					
2	Flour Packer	3	1					
5	Furnace Tapper	9	4					
6	Furnace Tapper and Purer	2	1		1			
6	Furniture Repairer	3	2		1			
10	Gas Water Operator	5	1	1				
6-8	Gluer	138	4	1				
6	Gluer and Sander	4	1					
5	Greaser	9	5	2	1			
5	Grinder	24	4					
9	Hand Type Setter	2	1					
6-8-9	Hand Type Setter and Platen Pressman	28	6	1	3			
1	Heat Treater	6	1					
4	Homogenizer and Pasteurizer	4	4	1				
4	Ice Cream and Butter Packer	5	1					
4	Ice Cream Maker	10	2	1				
8	Ink Mixer	8	1		1			
6	Joint Maker	2	1					
1-5	Ladler	21	5					
8	Liner	4	1					
8	Machine Tender	49	3					
7	Marker and Sorter	2	1					
1	Metal Shaper	10	1					
5	Metal Spinner (Sharpener)	6	1					
8	Millwright	7	1		1		1	
1-5	Molder	292	5					
2	Molding Machine Operator (Bread)	2	2					
2	Oiler and Sweeper	2	1	1				
2	Oven Operator and Steam Room Operator	1	1					
3-6	Painter	5	4					
6	Painter and Sprayer	4	1					
9	Paper Cutter (Hand)	2	2					
8	Paper Cutting Machine Operator	81	3	2	1			
4	Pasteurizer	2	1	1				
6	Pillow Stuffer	4	1					
6	Plainer Operator	1	1					
8	Pressman (Bronze)	112	3	1	1			
8	Pressman (Color)	20	1		1			
9	Pressman (Platen)	2	1		1			
8	Pressman (Miehle)	160	3	1	1			
6-8	Pressman (Machine)	18	2		1			
1-6-8	Punch Press Operator	17	4					
6	Riveter	1	1					
2	Roll Twister	12	1	2				
6	Roofer	15	4	3				
5	Sand Blaster	4	1	1				
5	Scrap Stockkeeper and Feeder	2	1	1				
6-8	Sewer (Machine)	58	2					
1	Shock Sprayer	2	1					
7	Shaker	2	1					
7	Shirt Press Operator	2	1					
3	Sign Constructor	4	1					
3	Sign Erector and Repairer	6	1	1				
3-6	Slater	2	2	2				
3	Smoother	1	1					
7	Soft Press Operator	2	1					
6	Spray Operator	4	1	1				
6	Stainer (Wood)	3	1					
5	Stamp Press Operator	14	1					
7	Starch Press Operator	2	1					
3	Steam Shovel Operator	1	1					
6	Steel Cutter and Riveter	2	1					
1-5-6	Stockkeeper	9	5	3				
9	Stockkeeper and Cutter	2	1					
6	Stockkeeper and Cutter (Upholstery)	3	1	1	2			
10	Stoker	4	1					
1	Sway Bar Shaper	5	1					
6	Tag Bender (Machine)	2	1					
5	Tool Keeper	4	2	2				
5	Trip-Hammer Operator	4	1					
5	Truck Driver (Electric)	2	1					
6	Upholsterer	17	2					
6	Upholsterer and Furniture Repairer	2	1					
6	Veneer Maker	4	1					
7	Washing Machine Operator	1	1					
8	Wax Machine Operator	28	2					
1-5	Welder (Acetylene) (Helpers)	10						
5	Welder (Electric)	2	1					
6	Welder (Spot)	1	1					
6	Wood Carver (Hand)	5	1					
6	Wood Carver (Machine)	3	1	1				
6	Yard Man (Lumber)	12	4	2				

Chapter V

A TRAINING PROGRAM FOR THE PREPARATION OF BEGINNING SEMI-SKILLED WORKERS IN MONROE MICHIGAN

The findings in Chapter IV reveal the need for an adequate program of training beginning workers for the semi-skilled mechanical occupations of Monroe, Michigan.

The data in Chapter IV brought out the fact that the general pattern of semi-skilled jobs found in one factory was very similar to that found in another factory producing the same products. It was also found that many other businesses seemed to fall into natural pattern groupings. All industries which had similar semi-skilled patterns were grouped into occupational clusters.

The data taken from the "Should Know--Should Do" master sheets which are described in Chapter III will be used as a basis for a program to meet the needs of the pupils in preparing them for entry into the semi-skilled mechanical occupations of Monroe.

ARRANGEMENT OF JOBS INTO A LEARNING SEQUENCE

It was found that industry does not demand

that the semi-skilled worker learn the occupational jobs in any definite sequence. In education, however, learning activities are arranged in a learning order which begins with the more simple activities and progresses to the more difficult ones. With this fact in mind, a number of industrial arts instructors on the Colorado State College campus were consulted. These instructors were asked to arrange the jobs recorded on the "Should Do" master sheets in the order of their learning difficulty. The same procedure was followed in arranging the items of related occupational information found on the "Should Know" master sheet. These "Should Know--Should Do" master sheets are found at the beginning of each occupational cluster.

A COOPERATIVE TRAINING PROGRAM PROPOSAL FOR BEGINNING SEMI-SKILLED WORKERS

A cooperative program of training is planned wherein job performance which cannot be taught in school will be learned in industry. The related information will be mastered in school. It is recommended that the school superintendent interview leaders in the mechanical occupations of Monroe and inaugurate this program. The students' work experiences may be arranged for Saturdays and late afternoons. Shop instruction should be given under the supervision of a

foreman and the instructor of this course.

INDUSTRIAL EXCURSIONS

When school convenes in September it is planned that an excursion will be taken to a representative firm in each occupational cluster. The purpose of these excursions is to familiarize the pupils with the duties of semi-skilled workers and the actual working conditions found in industry. These visits should enable the pupils to make more adequate choices of occupations for which they desire training.

This training program for beginning semi-skilled workers has been organized on the basis of the findings given in Chapter IV and is presented in the following units: general exploration; automotive; baking and flour milling; building and construction; dairy, ice cream, and bottling; foundry; lumber, furniture, upholstering, pattern making, office equipment and roofing; laundry; paper; printing; and utilities. A compilation of data pertaining to information on industrial excursions will be found in the appendix.

PLAN OF PROCEDURE FOR TRAINING BEGINNING WORKERS FOR SEMI-SKILLED MECHANICAL OCCUPATIONS

Students will be given a general exploration sheet which contains the principal pay-roll jobs in the

industry under consideration and a set of questions to answer after they have made the visit. Each student is also to be given a job analysis sheet. Each excursion will be followed by a day of discussion on the industry visited. The general exploratory sheets will be found at the end of each occupational cluster. A sample of the job analysis sheet will be found in the appendix.

When the ten excursions have been taken and each has been discussed, the pupil is permitted to choose training in one of the occupational clusters. This choice is to be based on his needs and interests.

After the student has worked in his chosen unit for a few days, exploratory checks are to be given by the instructor. These exploratory checks are found in each occupational cluster. These checks are given to aid the pupil to evaluate his choice in terms of such requirements as strength, coordination, adequate eyesight, and enough general ability to do the job successfully. If the job had become distasteful and his ambitions have become frustrated because of the conditions mentioned, he is given an opportunity to choose another unit for training. Two exploratory checks are necessary. If the student has aptitudes for the work and his interest grows, periodical checks are given. Each student moves as rapidly as he is able.

When he has successfully completed the assignments of an instructional unit, he reports it to the foreman of his group. The foreman then reports this fact to the instructor and the instructor gives him the final check. These exploratory and final checks will be found at the end of each instructional unit. The student will then begin work in the next unit of his choice. The more units the student can cover the more versatile will he become.

A set of directions has been designed to provide a guide in teaching a course when the class members have chosen the units in which they wish instruction. Under this plan there will be a number of groups studying different units at the same time. These directions to the instructor follow.

DIRECTIONS FOR THE TEACHERS

After the excursions have been taken and discussed, the students will make a first, second, and third choice of the occupational clusters which they think will best fit their needs.

The students in each unit will then elect a foreman. The duties of the foreman will be varied. They are to assist the instructor in passing out the instruction sheets, exploration sheets, the sheets on related occupational information and jobs. Foremen

will also collect the exploration and job analysis sheets which the pupils turn in after each excursion. Other duties of the foremen are to assist the pupils in their groups with reference to materials, supplies, and equipment. As the pupils complete the jobs they report to the foreman; the foreman in turn reports to the instructor. The foremen also have charge of their respective groups when films are shown.

When the foremen have been elected, the pupils return to their seats and are given instruction sheets on their respective units. The pupils will then spend about a day studying these sheets. They are then given the related occupational information sheet and the sheets on the jobs to be done in the field of their choice. The instructor checks each student before he begins work to make certain that he understands exactly what he is to do. The foremen then assist the instructor in giving out the tools, materials, and equipment that is needed by each unit. Work in the various units is then begun.

The instructor gives individual instruction as he passes from one unit to another. Several days will be spent by the instructor in getting the work of the various units organized. When the work of the units has been well organized, the instructor begins to make exploratory checks.

If the jobs which the pupil is doing have become distasteful because he lacks enough strength, proper coordination, or enough ability he is changed to the unit of his second choice.

By the end of two weeks the work should be well organized so that the instructor will have enough time to give unit demonstrations of jobs that are to be performed by the pupils. A suggested list of demonstrations for each occupational cluster appears later in this chapter.

Whenever the instructor thinks that the students of one unit have progressed to the point where a film pertaining to the jobs of the unit will be of value to this group, he calls them together. A few brief statements are made about the contents of the film and instructions are given to pupils for writing their summaries. The foreman is given charge of the film. One of the several boys who has been trained in operating the motion picture machine is notified to report to the projection room for duty. The group is then permitted to go to this room to see the film. The foreman collects the papers from the members of the group when they have finished the summaries. A suggested list of films to be shown for each occupational cluster is found in table 24.

A final check is to be made when the pupil has completed his unit. The exploratory and final

77
checks are found at the end of each occupational cluster.

The following calander has been organized to facilitate orderly procedure.

CALANDER OF PROCEDURE

The number found in the brackets following the name of the firm to be visited, refers to the occupational cluster in which it is listed.

The number found in the brackets after "general exploration sheets," refers to the occupational cluster in which they are found.

Unit I General Exploration

First Day

1. General planning of excursions.
2. Instructor arranges for visit and guide.

Second Day

1. Trip to Quality Bakery (2)
2. Students receive general exploration sheets (2) from the instructor.
3. Committees of students are assigned to observe the following specific jobs.
 - a. The operation of the molding machine.
 - b. Bread wrapper
 - c. Roll twister

Third Day

1. General discussion of trip.
2. Reports of committees on specific assignments.
3. Class members answer questions on the general exploration sheet.
4. Each member of the class checks the job analysis sheets.
5. General discussion of desirability of employment, duties, advantages and disadvantages of this occupation.

Fourth Day

1. Trip to Monroe Auto Equipment Co. (1)
2. Students receive general exploration sheets from the instructor.
3. Committees of students are assigned to observe the following specific jobs.
 - a. Assemblyman (Shock Absorber)
 - b. Molder
 - c. Punch Press
 - d. Metal Shaper

Fifth Day

1. General discussion of trip.
2. Reports of committees on specific assignments.
3. Class members answer questions on the gen-

eral exploration sheet.

4. Each member of the class checks the job analysis sheets.
5. General discussion of desirability of employment, duties, advantages, and disadvantages of this occupation.

Sixth Day

1. Trip to Stockford Construction Co. (3)
2. Students receive general exploration sheets from the instructor.
3. Committees of students are assigned to observe the following specific jobs.
 - a. Concrete mixer and smoother
 - b. Carpenter (rough)

Seventh Day

1. General discussion of trip.
2. Reports of committees on specific assignments.
3. Class members answer questions on the general exploration sheet.
4. Each member of the class checks the job analysis sheets.
5. General discussion of desirability of employment, duties, advantages, and disadvantages of this occupation.

Eighth Day

1. Trip to Independent Dairy Co. (4)
2. Students receive general exploration sheets from the instructor.
3. Committees of students are assigned to observe the following specific jobs.
 - a. Bottler
 - b. Pasteurizer

Ninth Day

1. General discussion of trip.
2. Reports of committees on specific assignments.
3. Class members answer questions on the general exploration sheet.
4. Each member of the class checks the job analysis sheet.
5. General discussion of desirability of employment, duties, advantages, and disadvantages of this occupation.

Tenth Day

1. Trip to Detroit Stoker Co. (5)
2. Students receive general exploration sheets from instructor.
3. Committees of students are assigned to observe the following specific jobs.
 - a. Core maker

- b. Grinder
- c. Chiseler

Eleventh Day

1. General discussion of trip.
2. Reports of committees on specific assignments.
3. Class members answer questions on the general exploration sheet.
4. Each member of the class checks the job analysis sheets.
5. General discussion of desirability of employment, duties, advantages, and disadvantages of this occupation.

Twelfth Day

1. Trip to Floral City Furniture Co. (6)
2. Students receive general exploration sheets from the instructor.
3. Committees of students are assigned to observe the following specific jobs.
 - a. Band saw operator
 - b. Joint maker
 - c. Upholsterer

Thirteenth Day

1. General discussion of trip.
2. Reports of committees on specific assignments.

3. Class members answer questions on the general exploration sheet.
4. Each member of the class checks the job analysis sheets.
5. General discussion of desirability of employment, duties, advantages, and disadvantages of this occupation.

■ Fourteenth Day

1. Trip to Home Laundry. (7)
2. Students receive general exploration sheets from the instructor.
3. Committees of students are assigned to observe the following specific jobs.
 - a. Flat press operator
 - b. Washing machine operator

■ Fifteenth Day

1. General discussions of trip.
2. Reports of committees on specific assignments.
3. Class members answer questions on the general exploration sheet.
4. Each member of the class checks the job analysis sheet.
5. General discussion of desirability of employment, duties, advantages, and disadvantages of this occupation.

Sixteenth Day

1. Trip to Consolidated Paper Co. (8)
2. Students receive general exploration sheets from the instructor.
3. Committees of students are assigned to observe the following specific jobs.
 - a. Corrugator
 - b. Pressman (Miehle)
 - c. Creaser
 - d. Embossing machine operator

Seventeenth Day

1. General discussion of trip.
2. Reports of committees on specific assignments.
3. Class members answer questions on the general exploration sheet.
4. Each member of the class checks the job analysis sheets.
5. General discussion of desirability of employment, duties, advantages, and disadvantages of this occupation.

Eighteenth Day

1. Trip to Lamour Printing Co. (9)
2. Students receive general exploration sheets from the instructor.
3. Committees of students are assigned to

observe the following specific jobs.

- a. Hand type setter
- b. Platen pressman

Nineteenth Day

1. General discussion of trip.
2. Reports of committees on specific assignments.
3. Class members answer questions on the general exploration sheet.
4. Each member of the class checks the job analysis sheets.
5. General discussion of desirability of employment, duties, advantages, and disadvantages of this occupation.

Twentieth Day

1. Trip to National Utilities. (10)
2. Students receive general exploration sheets from the instructor.
3. Committees of students are assigned to observe the following specific jobs.
 - a. Gas water operator
 - b. Stoker

Twenty-First Day

1. General discussion of trip.
2. Reports of committees on specific assignments.

3. Class members answer questions on the general exploration sheet.
4. Each member of the class checks the job analysis sheet.
5. General discussion of desirability of employment, duties, advantages, and disadvantages of this occupation.

An outline giving the general procedure to be followed in beginning the instruction of the units follows.

GENERAL PROCEDURE IN BEGINNING THE UNITS

GENERAL DIRECTIONS FOR THE STUDENT

This is an outline of general procedure to be followed in organizing and beginning an instructional unit.

I. General Procedure

A. Steps to be followed:

1. Student makes first, second, and third choice of units.
2. The members of each unit elect a foreman.
3. Each student is given a related occupational information sheet and a list of the jobs to be performed in the unit of his choice, and the foreman will distribute instruction

- sheets to the students.
4. The instructor gives out the supplies needed for each unit.
 5. Students begin work.
 6. Exploratory check given after a few days on the job.
 7. Second exploratory check is given.
 8. If student is not suited for the unit of his choice, he is given an opportunity to begin work in another unit.
 9. Students will be given other checks at intervals.
 10. When student has completed his unit he reports to the foreman of his unit. The foreman reports this information to the instructor.
 11. This student is then given a final check.
 12. When the student has satisfactorily completed the work of one unit he reports to the instructor.
 13. A conference is held between the student and instructor pertaining to the work covered. His next unit of work is also discussed.
 14. Student is given related occupational information sheet and a list of the jobs to be performed.

15. Student studies these sheets.
16. When the student has studied these sheets he again reports to the instructor for further instructions.
17. Student is given supplies.
18. Student begins work.

A table showing the group demonstration to be given by the instructor follows.

Table 24.--GROUP DEMONSTRATIONS TO BE GIVEN BY INSTRUCTOR

The selection of these particular demonstrations was based upon the frequency with which they appeared in the occupational clusters.

Occupational Cluster Number	Demonstration Number	Number	Demonstration
1	<ol style="list-style-type: none"> 1. Grease the chassis of a car. 2. Operate a metal cutting lathe. 3. Wax a car. 	7	<ol style="list-style-type: none"> 1. Make a mold for end of stock lathe.
9	<ol style="list-style-type: none"> 1. Set type in stick. 2. Operate platen press. 	8	<ol style="list-style-type: none"> 1. How to operate molding machine 2. How to twist rolls.
6	<ol style="list-style-type: none"> 1. Square a board. 2. How to pad a seat 3. How to operate a band saw. 	10	<ol style="list-style-type: none"> 1. How to operate condenser.
3	<ol style="list-style-type: none"> 1. How to lay shingles. 2. How to mix concrete. 3. How to construct forms. 	7	<ol style="list-style-type: none"> 1. How to iron shirts. 2. How to iron bed sheets.
4	<ol style="list-style-type: none"> 1. How to bottle milk. 2. How to homogenize and pasteurize ice cream. 	8	<ol style="list-style-type: none"> 1. How to emboss paper. 2. How to corrugate paper.

An outline of general procedure to be followed in organizing a visual aid program to supplement instruction follows.

VISUAL AID

This is the outline of general procedure to be followed in organizing a visual aid program to supplement instruction.

I. Showing of Films

A. Procedure

1. When the work is well organized in the shop and some boys from the same unit have completed the first exploratory check they are to be called together and told that they are given an opportunity to see a film that pertains to the unit on which they are working.
2. Students in this unit are sent to the projection room to see the film.
3. The foreman has charge of this group.
4. A student from the school will operate the machine.
5. After the film is shown, the students return to the shop.
6. Students write reports on the film.
7. Whenever the instructor finds that another

group is ready to see a film, the same procedure is to be followed.

Table 25 which follows shows the suggested films to be seen by the pupils of each occupational cluster.

FILMS

Table 25.--A LIST OF SUGGESTED FILMS TO BE SHOWN AS A SUPPLEMENT TO INSTRUCTION IN EACH OCCUPATIONAL CLUSTER

Occupational Cluster Number	Title of Film	Contents of Film
1	Automobile lubrication	Animated drawings illustrate manner of lubrication
1	The Rouge Plant	Shows Ford factory complete unit of assembly parts to complete car
1	The Evolution of the Oil Industry	Traces the development of petroleum industry. Details of bringing in Drake well in 1859.
2	The Story of a Loaf of Bread	Evolution of wheat industry. Shows development from milling to baking.
2	In the Dough	History of baking. Views of yeast cells. Qualities of good bread.

Table 25.--A LIST OF SUGGESTED FILMS TO BE SHOWN AS A SUPPLEMENT TO INSTRUCTION IN EACH OCCUPATIONAL CLUSTER (Continued)

Occupational Cluster Number	Title of Film	Contents of Film
3	Building the Mount Vernon Memorial Highway.	Roughing out roads. Shows road building in full.
3	Home Builders	Shows logging material in new homes.
3	Furniture Making	Shows period styles of furniture. Shows a modern furniture factory.
4	The Milkman as a Community Helper.	A complete picture of milk. Milk production, pasteurization, cooling, and delivery.
4	Refrigeration	History of refrigeration. Present uses of refrigeration.
5	Steel--Flat Rolled Products	Manufacture of steel. Plate, rolling, reheating, rerolling, leveling, cooling and cutting.
5	Steel--The Making of	Animated drawings show operation of furnace. Bessemer process is completely shown.

Table 25.--A LIST OF SUGGESTED FILMS TO BE SHOWN AS A SUPPLEMENT TO INSTRUCTION IN EACH OCCUPATIONAL CLUSTER (Continued)

Occupational Cluster Number	Title of Film	Contents of Film
6	The conquest of the Forest.	Scenes in log country. Comprehensive picture of the lumber industry.
6	From Rags to Roofs	Story of asphalt shingles, making felt, refining asphalt, the final use of roof covers.
7	Clean Clothes	Shows laundry in operation, value of clean clothes to health.
8	The World of Paper.	Concerns the arts of writing printing and paper making.
8-9	Making a Book	The Manufacture of paper. Hand machine composition. Making half tones and printing folding, cutting and binding.
8-9	Tree to Newspaper	Shows logging, paper making, printing on paper.
10	Coal Gas--The Manufacture of	Shows complete unit from coal to gas.

SUPPLEMENTARY FILMS

A supplementary list of films from which the instructor may select additional films will be found in the appendix. In the right column appears the title of the film. The next columns indicate the number of reels, whether they are silent or sound, distribution number, and rental cost. The distribution number refers to the company renting the film.

UNITS OF INSTRUCTION

The units of instruction covering each occupational cluster are presented in the following sequence: General exploration, occupational information, occupational jobs to be performed, and check sheets for checking these jobs.

These units complete the organization of course material and make possible the presentation of the course.

INSTRUCTIONAL UNIT I
AUTOMOTIVE OCCUPATIONAL CLUSTER

GENERAL EXPLORATION

These questions are to be answered and given to the instructor the day following the visit.

I. Units to be observed

A. Jobs

1. Greaser

- a. How was the car locked on the hydraulic lift?
- b. What became of the oil that was drained from the car?
- c. Did the greaser use any system in greasing a car?
- d. What equipment did he use in greasing the car?

2. Washer--Waxer

- a. Why was cleaner applied after washing a car?
- b. Why is it necessary to use good wax?
- c. How can you check a good wax job?

3. Platform

- a. What are the services rendered by the platform man?

4. Electrical Department

- a. How can spark plugs be checked for performance?
- b. How can spark plugs be adjusted?
- c. What cautions should be taken in changing

batteries?

5. Bumping Department

- a. List some of the tools used in bumping out cars?
- b. Why is a rubber hammer used frequently?
- c. How is a smooth surface obtained after the dent is pounded out?
- d. How are colors checked to see which is to be used on this job?

6. Forge

- a. What does the term "draw-out" metal mean?
- b. What is meant by "beat treating"?

7. Lathe

- a. How is the speed of a lathe changed?
- b. Why does the operator change speeds?
- c. What measuring devices were used?
- d. What are a few projects that can be turned on a lathe?

8. Spot Welder

- a. What is "spot welding"?
- b. Is spot welding waterproof?
- c. What are the carbons used for?
- d. When is a spot welder used?

MASTER SHEET FOR AUTOMOTIVE INDUSTRY

This is the related occupational information which a pupil should learn in Unit I, Automotive Occupational Cluster.

I. The items of occupational information are to be taught in the classroom.

1. The kinds and grades of oil and greases that are used in a car.
2. Why oil is changed in a car.
3. How to keep an inventory of oils and greases.
4. Follow instruction manual of car manufacturer in greasing a car.
5. The different types of grease guns and where each is used.
6. How to locate squeaks in the body or chasis of a car.
7. The kind of grease to use in repacking the wheels of a car.
8. What solutions to use in removing bugs, tar and foreign matter from cars.
9. The different kinds of cleaners and waxes.
10. How to mix a soda solution for the removal of bugs from car.
11. How many pounds of pressure is used to inflate tires.

12. What kind of greases to use in lubricating a car.
13. The different kinds of break linings.
14. The materials and methods used in patching a tube.
15. The functions of the carburetor.
16. The function of the timing mechanism.
17. How batteries are constructed.
18. How to locate short circuits.
19. Know car parts by name.
20. How to keep records of parts and supplies used or sold in a garage.
21. How to order car parts.
22. How to arrange a stock room efficiently.
23. The properties of steel and iron.
24. Why steel is heat treated.
25. The parts of a shock-absorber.
26. The safety rules for operating a steel lathe.
27. The safety rules for operating a shaper.
28. The kind of carbon used in a spot welder.

II. These related items of occupational information will be taught in the classroom by substituting parallel information:

1. What cutting solutions are used.
2. What a sway bar is and why it is used on a car.

III. These items of occupational information will be taught by industry through a cooperative training program:

1. The theory of oxyacetylene welding.

2. The theory of electric welding.
3. The materials used in welding.
4. How to locate parts in a stock room by number.
5. How to match colors in painting cars.

MASTER SHEET FOR AUTOMOTIVE INDUSTRIES

These are the occupational jobs to be learned in Unit I, Automotive Occupational Cluster.

I. These units will be taught in the classroom.

1. Change oil in a car.
2. Grease chasis of car.
3. Keep an inventory of oil and grease.
4. Operate grease guns.
5. Fill grease guns.
6. Spray springs.
7. Repack wheels with grease.
8. Wash cars.
9. Mix soda-water solution for bug cleaner.
10. Apply cleaner.
11. Wax cars.
12. Remove bugs, tar, etc.
13. Clean pit and equipment.
14. Wash windshields.
15. Inflate tires.
16. Change tires.
17. Repair tires.

18. Repair tubes.
19. Change batteries.
20. Fill battery.
21. Order car parts.
22. Arrange stock in stock room.
23. Adjust carburetor.
24. Adjust timing.
25. Test spark plugs.
26. Clean spark plugs.
27. Adjust spark plug gaps.
28. Replace spark plugs.
29. Locate shorts in circuit.
30. Repair shorts in circuit.
31. Bump out dents in car.
32. Heat treating.
33. Draw out metal.
34. Operate a steel lathe.
35. Operate a spot welder.
36. Operate a shaper.
37. Make change (money)

II. These units will be taught in the classroom by substituting parallel jobs:

1. Operate a turret lathe.

III. These jobs will be taught by industry through a co-operative training program:

1. Turn down brake shoe.
2. Locate parts in a stock room by number.

3. Match colors in repainting car parts.
4. Operate a spray gun.
5. Straighten bumpers.
6. Operate forming or bending machine (for sway bar)
7. Operate punch press.
8. Oxyacetylene welding.
9. Electric welding.

CHECK FOR AUTOMOTIVE

I. Exploratory Check

A. Job

1. Platform work--wash windshields, check tires, wash head lights, clean platform, and sweep out cars.

B. Questions

1. Did he wash the car windows thoroughly?
2. Did he inflate the tires to the exact pound required?
3. Did he sweep out the front floor boards?
4. Was the platform cleaning satisfactory?

II. Second Check

A. Job

1. Wash a car.

B. Questions

1. Did the student clean off the dirt sufficiently with the sponge?
2. Was the wash job streaked after he had used

shammy skin?

3. Did he clean under the fenders?
4. Did he clean the chassis?
5. Did he remove all the bug juice, tar and foreign particles?

III. Third Check

A. Job

1. Wax and clean a car.

B. Questions

1. Did he remove all the foreign particles with the aid of cleaner?
2. Did he wax dry too much before he rubbed?
3. Was the job smooth and free from streaks?

IV. Fourth Check

A. Job

1. Grease a car.

B. Questions

1. Did he miss any grease cups or oil holes?
2. Did he show any aptitude in handling the grease equipment?
3. Did he spill a great deal of grease on the platform?
4. Did he clean his equipment when completed?

INSTRUCTIONAL UNIT II
FLOUR MILLING AND BAKING

GENERAL EXPLORATION

These questions are to be answered and given to the instructor the day following the visit.

I. Units to be observed

A. Feed Grinding

1. What kind of power is used to operate the feed grinder?
2. How is the grinder adjusted for different grades of feed?
3. Can more than one kind of feed be ground with this machine?

B. Flour Packing.

1. How does the operator adjust the machine so that it fills the sack to the exact weight?
2. Does the sacker ever check the weight on regulation weight scales?
3. Are the sacks sewed by hand?

C. Sweeper--Oiler

1. Why is it necessary to keep the mill free from dust?
2. How often are the principle machines oiled?

D. Fireman

1. What are the responsibilities of a fireman?
2. How is steam pressure measured?

3. What is a safety valve?

4. How often does a boiler have to be cleaned?

E. Bread Wrapping.

1. Is it a tedious job?

2. What is the approximate temperature of the room where bread is wrapped?

F. Roll Twisting

1. How long would it take you to acquire the skill required to twist rolls?

MASTER SHEET FOR FLOUR MILLING AND BAKING

This is the related occupational information which a pupil should learn in Unit II, Flour Milling and Baking Occupational Cluster.

I. The items of occupational information are to be taught in the classroom.

1. The polishes used in shining shafts.

2. The different floor sweeping compounds.

3. The different kinds of oils and greases and where they are used in the flour mill.

4. The principles involved in operating a steam boiler.

5. The purpose of safety valves.

6. The principles of steam pressure of boilers.

7. The history of milling.

8. How to prepare icing for rolls.

9. Why bread dough rises.
10. The correct oven temperature for baking bread, rolls, and cookies.

MASTER SHEET FOR FLOUR MILLING

These are the occupational jobs to be learned in Unit II, Flour Milling and Baking.

I. These units are to be taught in the classroom.

1. Operate weight scales.
2. Sweep a floor.
3. Shine a shaft.
4. Oil a machine.
5. Locate oil holes.

III. These units are to be taught by industry through a cooperative training program:

1. Operate a boiler.
2. Fire a boiler.
3. Inject water into boiler.
4. Operate a sacker.
5. Pile the filled sacks.
6. Repair a boiler.
7. Clean a boiler.
8. Grind feed.
9. Crack corn.
10. Twist rolls.
11. Make icing.

12. Operate gas oven.
13. Apply icing on rolls and cookies.
14. Operate a bread molding machine.
15. Wrap bread, rolls and cookies.

CHECK SHEET FOR FLOUR MILLING AND BAKING

I. First Exploratory Check

A. Job

1. Sacking flour.

B. Questions

1. Did he have the necessary strength for the job?
2. Did he possess a natural aptitude for sewing sacks?

II. Second Exploratory Check

A. Job

1. Oil flour machinery.

B. Questions

1. Did he use the right kind of oil and grease in performing his duty?
2. Did he miss any oil holes or grease cups?

III. Third Exploratory Check

A. Job

1. Wrap bread.

B. Questions

1. Does the temperature of the room affect him?
2. Does he work rapidly?

3. Does he like the job?

IV. Fourth Check

A. Job

1. Twist rolls.

B. Questions

1. Does he possess natural ability in twisting rolls?

2. Does he take pride in doing his work well?

V. Final Check

A. Job

1. Operating bread molding machine.

B. Questions

1. Is he a careful worker?

2. Does he work rapidly?

3. Does he do his work accurately?

INSTRUCTIONAL UNIT III
BUILDING AND CONSTRUCTION OCCUPATIONAL CLUSTER

GENERAL EXPLORATION

These questions are to be answered and given to the instructor the day following the visit.

I. Units to be observed

A. Cement mixer

1. How were the materials measured?
2. Does a concrete mixer always use the same formula?
3. What power was used to run the mixer?

B. Carpenter (Rough)

1. List a few of the jobs done by this semi-skilled worker?
 - a.
 - b.
 - c.

C. Expansion Man

1. What are expansions?
2. Why are they used in road building?
3. Do you consider this to be an exacting job?

D. Bulldozer

1. What is a "bulldozer"?
2. List some of the jobs done by a bulldozer.
 - a.
 - b.

c.

E. Sign Constructor

1. Are blue prints used in sign construction work?
2. What kind of wood is used in sign construction?

F. Steam Shovel

1. What are some of the jobs performed by a steam shovel operator?
2. Why is the manipulation of this machine of great importance?

MASTER SHEET FOR BUILDING AND CONSTRUCTION

This is the related occupational information which a pupil should learn in Unit III, Building and Construction Occupational Cluster.

I. These items of occupational information will be taught in the classroom.

1. The most common woods and how to identify them.
2. The effects of moisture on wood.
3. The standard dimensions of lumber.
4. The different kinds of abrasives used in sharpening tools.
5. The different kinds of hand saws.
6. The different kinds and sizes of nails.
7. The different kinds of shingles.
8. The different kinds and sizes of wood screws.

9. The composition of paint.
10. How to thin paint.
11. The different kinds and sizes of paint brushes.
12. The name of tools used in concrete work.
13. Concrete formulas.
14. The principles of form making.
15. Why concrete is tamped.
16. The effects of rapid drying of concrete.
17. Time required for concrete to set.
18. The properties of dynamite.
19. The precautions to be taken in handling dynamite.
20. The wood used as primary floors and roofs.

III. These items of occupational information will be taught by industry through a cooperative training program:

1. The wind principles involved in erecting signs.
2. The principles involved in making forms for roadbeds.

MASTER SHEET FOR BUILDING AND CONSTRUCTION

These are the occupational jobs to be learned in Unit III, Building and Construction Occupational Cluster.

- I. These units will be taught in the classroom.
 1. Sharpen edge tools.
 2. Gage with a pencil

3. Trim or pare with a chisel.
 4. Adjust a plane.
 5. Saw by hand.
 6. Drive and draw nails.
 7. Use these carpenter tools:
 - a. Hammer
 - b. Saw
 - c. Chisel
 - d. Squares
 - e. Planes
 - f. Level
 8. Mix paint properly.
 9. Thin paints.
 10. Paint by hand.
 11. Mix concrete by hand.
 12. Make simple forms for concrete work.
 13. Pour concrete in forms.
 14. Tamp concrete.
 15. Smooth surface of concrete.
 16. Lay wood and composition shingles.
- III. These units will be taught by industry through a co-operative training program:
1. Mix concrete by machine.
 2. Nail on primary floor and roof.
 3. Put up scaffolding.
 4. Put up studdings.
 5. Erect signs so they won't blow down.

6. Make forms for laying of concrete roads.
7. Grub out trees with caterpillar tractor.
8. Make expansion joints.
9. Operate a caterpillar tractor.
10. Adjust and regulate blade of a caterpillar tractor.
11. Operate steam shovel.
12. Repair simple breakdowns of a steam shovel.
13. Operate a stone crusher.
14. Adjust cracker to produce desired stone.
15. Operate electric drill.

CHECK FOR BUILDING AND CONSTRUCTION

I. First Exploratory Check

A. Job

1. Saw boards to be used as primary floor.

B. Questions

1. Did he show ability in figuring out the angle
at which these boards are sawed?
2. Did he check to see if the boards were sawed
accurately?

II. Second Exploratory Check

A. Job

1. Construct and paint a saw-horse.

B. Questions

1. Was the plan carefully thought out?
2. Did he follow the plan?

3. Did he measure accurately?
4. Did he saw to the line?
5. Did he place the nails in a straight line?
6. Did he sand the rough spots?
7. Did he apply a primer coat of flat paint?
8. Was the paint job satisfactory?

III. Third Exploratory Check

A. Job

1. Frame a small garage.

B. Questions

1. Did he draw a plan?
2. Was the plan laid out according to a scale?
3. Was the building procedure logical?
4. Was the finished product accurate in construction and size?

IV. Final Check

A. Job

1. Make concrete steps for a home.

B. Questions

1. Did he draw plans before he began construction?
2. Did he show unusual ability in laying out and cutting forms?
3. Did he oil the forms?
4. Was his mortar mixed sufficiently?
5. Did he tamp the concrete?
6. Was the finished product like his plans?

INSTRUCTIONAL UNIT IV

DAIRY, ICE CREAM AND BOTTLING OCCUPATIONAL CLUSTER

GENERAL EXPLORATION

These questions are to be answered and given to the instructor the day following the visit.

I. Units to be observed

A. Pasteurizer

1. Why are bottles and cans sterilized with steam?
2. Why is milk sterilized?
3. What bacteria should be in milk?
4. How is milk cooled?

B. Bottler

1. How are bottles filled?
2. How does he control the flow of milk in this machine?
3. How are caps put on milk bottles?

C. Pasteurizer and Homogenizer (Ice Cream)

1. Why are ice cream ingredients pasteurized before mixing?
2. How is ice cream frozen?
3. Why is ice cream whipped?
4. What does homogenize mean?

D. Packer and Dipper

1. How is butter wrapped?
2. How are ice cream bricks wrapped?
3. How is ice cream cut into molds for ice cream

sticks?

4. How are these sticks dipped?

E. Technique of making fancy ice cream.

MASTER SHEET FOR DAIRY, ICE CREAM, AND BOTTLING

This is the related occupational information which a pupil should learn in Unit IV, Dairy, Ice Cream, and Bottling Occupational Cluster.

I. These items of occupational information are to be taught in the classroom.

1. How to test for butterfat.
2. The degree of temperature to use in sterilizing milk.
3. The degree of temperature to use in sterilizing bottles.
4. The different ingredients used in coloring and flavoring ice cream.
5. Why ice cream is whipped.
6. The principles involved in freezing ice cream.
7. Why milk is pasteurized.
8. Why ice cream is homogenized and pasteurized.

MASTER SHEET FOR DAIRY, ICE CREAM, AND BOTTLING

These are the occupational jobs to be learned in Unit IV, Dairy, Ice Cream, and Bottling Occupational Cluster.

III. These units will be taught by industry through a cooperative training program:

1. Operate steam controls for sterilizing bottles and cans.
2. Test for butterfat.
3. Sterilize milk and cream.
4. Cool milk.
5. Operate bottle filling machine.
6. Regulate controls of bottle filling machine.
7. Operate capping machine.
8. Mix ice cream ingredients.
9. Color ice cream.
10. Flavor ice cream.
11. Sterilize ice cream mix.
12. Operate freezing controls.
13. Whip ice cream.
14. Wrap bulk ice cream.
15. Operate ice cream cutter.
16. Place sticks in ice cream molds.
17. Dip ice cream sticks.
18. Wrap butter.

CHECK FOR DAIRY, ICE CREAM, AND BOTTLING

I. Exploratory Check

A. Job

1. Wash and sterilize bottles and cans.

B. Questions

1. Was the student careful in the use of steam?
2. Did he plan and organize his work?
3. Did he break any bottles?
4. Did he do a thorough job?

II. Second Check

A. Job

1. Pasteurized milk.

B. Questions

1. Did he use and hold the right temperature as required to sterilize milk?
2. Did he experience any difficulty in the process of cooling milk?

III. Final Test

A. Job

1. Wash and clean sterilizing equipment.

B. Questions

1. Did he remove all of the necessary pipes?
2. Did he use the brush on the important parts where not sterilized by steam?
3. Did he use steam to clean the important pieces and pipes?
4. Did he have trouble cleaning the vat?

INSTRUCTIONAL UNIT V
FOUNDRY OCCUPATIONAL CLUSTER

EXCURSION FOR FOUNDRY INDUSTRY

These questions are to be answered and given to the instructor on the day following the visit.

I. General information about a foundry

1. List several kinds of work done in a foundry.

- | | |
|----|----|
| a. | d. |
| b. | e. |
| c. | f. |

2. How many different kinds of jobs are there:

- | | |
|----|----|
| a. | d. |
| b. | e. |
| c. | f. |

II. Units to be observed

1. Molding

- a. How is the sand prepared?
- b. What is the purpose of the pattern?
- c. Why is parting sand used?
- d. What is a gate?
- e. What is a vent?
- f. Does it matter how fast metal is poured?
- g. What should be the temperature of lead when it is poured?
- h. Why are commercial molds and cores baked?

2. Grinder

- a. Why are castings ground?
- b. Why is it necessary to grind some castings to .005 inches?
- c. What kind of wheel or disc is used for fine grinding?

3. Forging

- a. What are some of the tools used by a blacksmith?

a.	c.	e.
b.	d.	f.

- b. How is metal drawn?
- c. What color was the steel when welded?
- d. Will steel burn?
- e. Why do we case-harden metal?

4. Metal Lathe

- a. How is the speed of a lathe changed?
- b. Why is it necessary to change the speed of the lathe?
- c. Name a few projects that can be turned on a lathe.

a.	c.
b.	d.

- d. What precautions should be taken when operating a lathe?

MASTER SHEET FOR FOUNDRY INDUSTRY

This is the related occupational information which a pupil should learn in Unit V, Foundry Occupational Cluster.

I. The items of occupational information are to be taught in the classroom.

1. The kind of sand used in molding.
2. The equipment used in molding.
3. Why vents are made in molds.
4. The melting point of steel, iron, copper, brass, aluminum, and lead.
5. The temperature to use in baking cores.
6. The kind of oil and paint used in coating cores.
7. Why cores are oiled, painted and baked.
8. The properties of steel, iron, copper, brass, lead and aluminum.
9. The safety precautions to use in pouring molten metal.
10. How to identify the following:
 - a. Pig iron
 - b. Manganese
 - c. Silicon
 - d. Nickel
 - e. Chromium
 - f. Vanadium

11. The different kinds of abrasives.
12. The common tools used in a foundry.
13. The safety precautions to use against silicosis.
14. To read calipers.
15. The tools used in blacksmithing.
16. The drill speeds to use on different metals.
17. The kinds and sizes of rivets.
18. What lathe speeds to use when cutting the different metals.
19. How to keep a running inventory of stock.
20. The mechanism of temperature controls.
21. To read a micrometer.
22. Why metals are annealed.

MASTER SHEET FOR FOUNDRY

These are the occupational jobs to be learned in Unit V, Foundry Occupational Cluster.

I. These units will be taught in the classroom.

1. Prepare sand for molding.
2. Use the following tools and equipment:
 - a. Cope and drag
 - b. Parting sand
 - c. Rammer
 - d. Vent pin
 - e. Heel stick
 - f. Patterns

3. Pack sand in mold.
4. Make gates and vents.
5. Repair broken molds.
6. Make cores.
7. Bake cores in oven.
8. Bake cores with blow torch (case-harden).
9. Oil or paint cores.
10. Keep running inventory.
11. Fill a ladel.
12. Fill stock orders.
13. Chisel a casting.
14. Polish a casting.
15. Clean holes in castings.
16. Identify the following metals:
 - a. Pig iron
 - b. Manganese
 - c. Silicon
 - d. Nickel
 - e. Chromium
 - f. Vanadium
17. Use scales in weighing.
18. Locate parts in tool room.
19. Sharpen edge tools.
20. Change grinding wheels on grinder.
21. Operate grinder.
22. The drill press.
23. The buffer.

24. Measure accurately.
25. Use measuring gauges and calipers.
26. Anneal.
27. Identify and use blacksmithing tools.
28. How to do the following:
 - a. Build forge fire.
 - b. Draw out metal.
 - c. Upset metal
 - d. Weld iron.
 - e. Weld steel.
 - f. Case harden metal.
 - g. Rivet.
 - h. Temper tool steel.
 - i. Scarf.
29. Operate metal spinning lathe.
30. Spin metal.

II. These units will be taught in the classroom by substituting parallel jobs:

1. Classify and sort stock.
2. Use precision measuring devices.
3. Make minor repairs on tractor truck.
4. Repair machines in general.

III. These units will be taught by industry through a co-operative training program:

1. Operate temperature controls on baking ovens.
2. Use shakeout.
3. Use electric vibrator.

4. Use air hose for cleaning mold.
5. Start a fire in furnace.
6. Tap a furnace.
7. Pour scrap iron and pig iron in smelter.
8. Do precision grinding (.005).
9. Operate sand blaster.
10. Blast castings.
11. Operate electric crane.
12. Operate tractor truck.
13. Operate oxyacetylene torch.
14. Cut rises with oxyacetylene torch.
15. Operate stamp press.
16. Operate trip hammer.
17. Assemble parts of a Detroit Stoker.

CHECK FOR FOUNDRY

I. Exploratory Check

A. Job. Mold a $1\frac{1}{2}$ " Dice, 6" long. Bushing stock.

1. How well did he prepare the sand for the mold?
2. Did he show patience in removing the pattern?
3. Did he have to repair his mold?
4. Did he use caution in heating his lead?
5. Was his lead too hot when he poured?
6. Did he pour the lead too fast?

II. Second Exploratory Check

A. Job. 6" Face plated with $\frac{3}{4}$ core.

1. Was the sand well prepared?
2. Was the sand packed too hard?
3. Was the core chipped?

III. Third Check

A. Job. Make a center punch and temper it.

B. Check Questions:

1. Did he use the hack-saw correctly in cutting his stock?
2. Did he have any trouble in building the forge fire?
3. Was his forge fire too hot when he was drawing the point?
4. Did he succeed in tempering the center punch the first time?

IV. Final Check

A. Job. Cast a tail stock for lathe. (Tail stock for small lathe or head stock for lathe).

B. Check Questions:

1. Did he have difficulty removing the pattern?
2. Did he have enough vent holes?
3. Was his gate made in the right place?
4. Did he pour his metal as it should be poured?

INSTRUCTIONAL UNIT VI
FURNITURE, LUMBER, ETC. OCCUPATIONAL CLUSTER

GENERAL EXPLORATION

These questions are to be answered and given to the instructor the day following the visit.

I. Units to be observed

A. Band Saw

1. Does the operator change saws according to the work he is doing?
2. Does he use jigs?
3. What was he cutting when you observed him?

B. Wood Carving

1. Did the carver lay out his own pattern?
2. What hand tools did he use?
3. How was the work held while he was working?
4. Did he sharpen or have his tools sharpened frequently?

C. Joint Maker

1. What jig was used as a guide in holding the pieces while he cut the joint?
2. Is this a dangerous job?
3. Did he check for accuracy of the cut?
4. What kind of joint was he making?

D. Sander

1. Why does the wood have to be sanded?
2. Was he operating a belt or a disc sander?

E. Pillow Stuffer

1. How did the pillow stuffer know when he had enough padding in the pillow?
2. Was the stuffing in the pillow smooth when completed?
3. Did the operator sew the final edges?

F. Upholstering

1. Why is it necessary to stretch the webbing tightly?
2. Why are springs tied together?
3. How are the springs held in place?
4. Why was burlap put on?
5. What is a spring edge?

G. Painter and Sprayer

1. How was the surplus spray taken care of?
2. Was it dusty in this room?
3. Did the spray operator use any system in spraying?

MASTER SHEET FOR LUMBER, FURNITURE, UPHOLSTERING, PATTERN MAKING, OFFICE EQUIPMENT AND ROOFING

This is the related occupational information which a pupil should learn in Unit VI, Lumber, Furniture, etc. Occupational Cluster.

I. These items of occupational information are to be taught in the classroom.

1. Sizes and kinds of upholstering tacks.
2. How to make a template for cutting goods.
3. Material used in padding seats.
4. Solutions used in removing paints from furniture.
5. How sandpaper is made.
6. Kinds of sandpaper and how it is ordered.
7. What turpentine is and how it is used.
8. Composition of paints.
9. The size and kinds of paint brushes.
10. The difference between paint and enamel.
11. The various kinds of varnish.
12. The various kinds of stain.
13. The various kinds of wax.
14. How to figure board feet.
15. How to keep a running inventory of stock.
16. The different kinds of glue and how each is used.
17. How to prepare glue.
18. The properties of common woods.
19. How nails are made.
20. Know the different kind and sizes of nails.
21. The affects of moisture on lumber.
22. The standard dimensions of lumber.
23. What abrasive to use in sharpening tools.
24. How to gage with a pencil.
25. The different kinds and sizes of screws.
26. The different kinds and sizes of brands.
27. The different kinds of fluxes and where they are

- used.
28. Know the cost of lumber, and supplies carried in lumber yard.
 29. The different kinds of plaster and how each is used.
 30. The different kinds of spray guns and where they are used.
 31. The mechanism of a sewing machine.
 32. Know the different kinds of shingles and where they are used.
 33. The different kinds of siding.
 34. How to read blueprints.
 35. The safety laws for operating:
 - a. Jig saw.
 - b. Band saw.
 - c. Circular saw.
 - d. Sanders.
 - e. Wood turning lathe.

MASTER SHEET FOR LUMBER, FURNITURE, UPHOLSTERING, AND
PATTERN MAKING

These are the occupational jobs to be learned in Unit VI, Lumber, Furniture, etc. Occupational Cluster

I. These units will be taught in the classroom:

1. Tack and stretch webbing.
2. Attach burlap to frame.

3. Tie springs at least two ways.
4. Use a template in cutting goods.
5. Sew by hand.
6. Apply padding to cushions.
7. Make a spring edge.
8. Tuft.
9. Gimp.
10. Remove old finish from furniture.
11. Rub down and sand furniture.
12. Mix paints properly.
13. Thin paints.
14. Paint by hand.
15. Enamel by hand.
16. Varnish furniture.
17. Stain furniture.
18. Wax furniture.
19. Order lumber.
20. Keep a running inventory.
21. Prepare glue.
22. Estimate the cost and amount of materials needed
for a specific job.
23. Rivet.
24. Saw with hack saw.
25. Operate circular saw.
26. Operate band saw.
27. Operate jig saw.
28. Operate sanders (belt-drum).

29. Operate turning lathe.
30. Change saws in machines.
31. Adjust blades in jointer.
32. Change belt or disc on sanders.
33. Build truck racks, chicken coops, etc.

III. These units will be taught by industry through a co-operative training program:

1. Operate a spray gun.
2. Refill and clean a spray gun.
3. Operate pillow stuffing machine.
4. Thread a sewing machine.
5. Replace broken needle in sewing machine.
6. Operate sewing machine.
7. Sew with sewing machine.
8. Operate punch press.
9. Operate riveting machine.
10. Build a fire in smelting furnace.
11. Read pressure controls on furnace.
12. Tap a furnace.
13. Mix metals for certain casts.
14. Lay shingles of all kinds.
15. Repair roofs.
16. Repair siding.

CHECK FOR LUMBER, ETC.

I. First Exploratory Check

A. Project

1. Pad seat on a wood base.
 - a. How well did he distribute his padding?
 - b. Did he cut his cover to exact size?
 - c. Were the corners tucked under neatly?
 - d. Was his tacking neatly done?

II. Second Exploratory Check

A. Project

1. Reseat an old chair using springs.
 - a. Was his webbing stretched enough?
 - b. Did he experience difficulty in tying his springs?
 - c. Was his burlap tacked on correctly?

III. Third Check

A. Project

1. Make and weld three links of chain.
 - a. Was his fire too hot?
 - b. Were the links even in thickness and size?
 - c. Did he experience difficulty in making his welds?

IV. Final Check

A. Project

1. Upholster and refinish an old chair that has a spring seat.
 - a. Was the webbing tight?
 - b. Were his springs spaced and tied evenly?
 - c. Were the springs tied correctly?

- d. Did he waste material when making the cover?
- e. Was all of the old paint removed?
- f. Was the paint applied evenly?

INSTRUCTIONAL UNIT VII
LAUNDRY OCCUPATIONAL CLUSTER

GENERAL EXPLORATION

These questions are to be answered and given to the instructor the day following the visit.

I. Units to be observed

A. Flat Press

1. Why is this press called a soft press?
2. What kind of work is done on this press?

B. Soft Press

1. Why it is called a "soft press."
2. What laundry is ironed on this press?

C. Starch Press

1. What clothes are pressed on this press?

D. Shirt Press

1. How does this press differ from the others in the laundry?

E. Sort and Mark Department

1. Why is it necessary to laundry mark clothes?

F. Washing Machine

1. Is the washing machine metal or wood lined? Why?
2. How is the amount of water used determined?
3. What temperature of water is used?
4. What kind of soap is used?

G. Extractor

1. What is an extractor?

2. What work is done in an extractor?

MASTER SHEET FOR LAUNDRY

This is the related occupational information which a pupil should learn in Unit VII, Laundry Occupational Cluster.

III. These items of occupational information will be taught by industry through a cooperative training program.

1. How much moisture the different fabrics should contain before pressing.
2. The degree of temperature to use in pressing the different fabrics.
3. How to make starch.
4. How to sort and laundry mark garments.

MASTER SHEET FOR LAUNDRY INDUSTRY

These are the occupational jobs to be learned in Unit VII, Laundry Occupational Cluster.

III. These units will be taught by industry through a cooperative training program:

1. Remove clothes from extractor.
2. Shake out clothes.
3. Operate flat work ironer.
4. Iron flat pieces of laundry.
5. Operate soft presses.

6. Iron socks, handkerchiefs, etc.
7. Operate starch press.
8. Iron uniforms, dresses, etc.
9. Operate shirt presses.
10. Iron shirts.
11. Mark and sort laundry.

CHECK FOR LAUNDRY

I. First Exploratory Check

A. Job

1. Operate soft press

B. Questions

1. Does she show dexterity in operating this press?
2. Does she do the pressing well?
3. Does she work rapidly?

II. Second Exploratory Check

A. Job

1. Operate flat press

B. Questions

1. Does she work rapidly?
2. Is the work well done?
3. Does she like the work?

III. Final Check

A. Job

1. Operate starch press

B. Questions

1. Is she well suited for the work?
2. Is the work done neatly?
3. Does she work rapidly?

INSTRUCTIONAL UNIT VIII

. PAPER MAKING OCCUPATIONAL CLUSTER

GENERAL EXPLORATION

These questions are to be answered and given to the instructor the day following the visit.

I. Units to be observed

A. Beater Room

1. What liquids are mixed with the old paper?
2. Why is wood fiber paper added to the old paper?

B. Wet and dry ends of tenders

1. Why is one end of the paper making machine referred to as the "wet end" and the other as the "dry end"?
2. How is the paper tested for thickness?
3. How is the paper tested for liquid contents?

C. Corrugation of paper.

1. Why is paper corrugated?
2. Why is the paper dampened before it is corrugated?

D. Hand type setting and platen press

1. Why does some of the type setting have to be done by hand?
2. What are the two kinds of type used?
3. What safety precautions were used in operating the platen press?

E. Glue Department

1. What are the duties of the glue machine operators?

F. Embossing Department

1. What is meant by "embossing"?
2. How did the embossing machine operator test his work for accuracy?

G. Sewing Department

1. Did men operate any sewing machines?
2. List the qualifications of a sewing machine operator.

H. Metal Upsetting

1. What is meant by "metal upsetting"?
2. List the qualifications which a metal upsetter should have.

I. Paper printing machine operator

1. List the duties of a paper printing machine operator.
2. Did the operators check their work for accuracy of print?

MASTER SHEET FOR PAPER MAKING INDUSTRY

This is the related occupational information which a pupil should learn in Unit VIII, Paper Making Occupational Cluster.

I. These items of occupational information are to be

taught in the classroom:

1. Type faces and sizes.
2. The different inks used in printing.
3. How to blend ink colors.
4. How to test for quality of inks.
5. How to test for accuracy of point paper.
6. The properties of steel.
7. The materials used in die making.
8. How to measure accurately.
9. How to read blueprints.
10. The parts of metal cutting lathe.
11. The speeds at which different kinds of metal are turned.
12. The parts of a milling machine.
13. The different kinds of abrasives.
14. The safety precautions to be taken in heating wax.
15. The different kinds of glue used in the paper making industry.
16. The mechanism of temperature controls.

MASTER SHEET FOR PAPER INDUSTRY

These are the occupational jobs to be learned in Unit VIII, Paper Making Occupational Cluster.

- I. These units will be taught in the classroom.
 1. Identify type faces and sizes.
 2. Use the different job cases.

3. Set type by hand.
4. Transfer type from stick to galley.
5. Tie type in the galley.
6. Lock the form.
7. Set form in press.
8. Make ready press.
9. Test for centering of work.
10. Apply ink from press disc.
11. Remove ink from press disc.
12. Feed printing press.
13. Operate platen press.
14. Distribute type.
15. Cut stock.
16. Identify paper according to kind, type, color, and point.
17. Operate cutting press.
18. Change knives in cutting press.
19. Load cutting press.
20. Set dies in cutting press.
21. Check for accuracy of cutting press.
22. Prepare glue.
23. To blend ink colors.
24. To mix inks.
25. Test for quality of inks.
26. Test for point paper.
27. Splice paper together.
28. Thread sewing machine.

29. Operate sewing machine.
30. Make minor adjustment on sewing machines.
31. Change thread and needle in sewing machines.
32. Upset metal.
33. Set up machine with different jigs.
34. Make dies.
35. Repair dies.
36. Measure accurately.
37. Read blueprints.
38. Operate a steel lathe.
39. Operate milling machine.
40. Operate grinder.
41. Operate saw sharpening machine.

III. These units will be taught by industry through a co-operative training program:

1. Regulate the speed of a glue machine.
2. Adjust the flow of glue.
3. Operate temperatures controls in heating wax.
4. Operate a Miehle press.
5. Oil and grease a press.
6. Load a Miehle press.
7. Change plates on a Miehle press.
8. Operate a bronze press.
9. Oil and grease a bronze press.
10. Change felts on paper making machine.
11. Regulate controls for making of specific point paper.

12. Regulate temperature control for drying of paper.
13. Test sheet for water content, color, and point of paper.
14. Color sheets on the callander.
15. Operate corrugating machine.
16. Adjust the size of corrugation.
17. Change paper rolls.
18. Operate controls which regulate the flow of lacquer.
19. Operate temperature controls of conveyer.
20. Operate an embossing machine.
21. Feed embossing machine.
22. Set and remove dies in embossing machine.
23. Operate a draw press.
24. Set dies in draw press.
25. Operate a punch press.
26. Change dies in punch press.
27. Operate a creaser.
28. Feed a creaser.
29. Operate automatic saw sharpener.

CHECK SHEET FOR PAPER INDUSTRY

I. First Exploratory Check

A. Job

1. Operate a paper cutting press.

B. Questions

1. Does he have coordination and dexterity?
2. Is he a careful worker?
3. Does he like the work?

II. Second Exploratory Check

A. Job

1. Operate embossing machine.

B. Questions

1. Is he a careful worker?
2. Does he work rapidly?
3. Does he examine his work for accuracy?

III. Third Exploratory Check

A. Job

1. Operate the Miehle press.

B. Questions

1. Does he have natural aptitude for this work?
2. Does he have the proper coordination needed for feeding the press?
3. Does he tire easily?

IV. Fourth Check

A. Job

1. Work on dry end of paper making machine.

B. Questions

1. Can he thread the paper through this machine?
2. Does he possess the stamina needed for this job?
3. Does he work rapidly?

V. Final Check

A. Job

1. Work on the wet end of the paper making machine.

B. Questions

1. Does he know how to test for color and water content of paper?
2. Does he have natural aptitude for this work?

INSTRUCTIONAL UNIT IX
PRINTING OCCUPATIONAL CLUSTER

GENERAL EXPLORATION

These questions are to be answered and given to the instructor the day following the visit.

I. Major jobs in a small printing shop

- A. Hand type setter
- B. Platen press operator

II. Units to be observed

A. Hand type setter

1. How is type stored?
2. What are the principle kinds of type cases?
3. In what direction is the type set in the stick?
4. What precaution should be used in moving the type from the stick to the galley?
5. Why is type tied in the galley before it is moved to the form?
6. What is a form?
7. Why is a proof usually taken before the form is locked up in the press?

B. Platen press operator

1. What is meant by "ready press"?
2. What is done if the printing is too heavy?
3. What is done if the printing is too light?
4. What test is used for centering of work:
5. What precautions should be taken in running a

platen press?

MASTER SHEET FOR PRINTING INDUSTRY

This is the related occupational information which a pupil should learn in Unit IX, Printing Occupational Cluster.

- I. The items of occupational information are to be taught in the classroom.
 1. The names of the common job cases used in printing.
 2. The terminology used in printing such as justification, spacing, galley, stick, form, and ready press.
 3. The faces and sizes of characters.
 4. The different printing inks.
 5. Know the following about paper:
 - a. Kinds
 - b. Types
 - c. Colors
 - d. Point (Pound)
 6. How to keep a running inventory.
 7. How to sort stock and materials.
 8. The liquids used to remove ink from the press disc.

MASTER SHEET FOR PRINTING INDUSTRY

These are the occupational jobs to be learned in Unit IX, Printing Occupational Cluster.

I. These units will be taught in the classroom:

1. Identify type faces and sizes.
2. Use type cases.
3. Set type by hand.
4. Transfer type from stick to galley.
5. Tie type in the galley.
6. Lock the form.
7. Set form in the press.
8. Make ready press.
9. Test for centering of work in press.
10. Apply ink to press disc.
11. Remove ink from press disc.
12. Operate platen press.
13. Feed press.
14. Sort and distribute type.
15. Cut stock.
16. Identify paper according to:
 - a. Kind
 - b. Type
 - c. Color
 - d. Point (Weight)
17. Keep a running inventory of stock.

18. Sort and stock printing materials.

CHECK FOR TYPE SETTER AND PLATEN PRESSMAN

I. First Check

A. Job

1. Set a five line poem using 12 point Gothic letters. Transfer this type from the stick to the galley; tie it and take a proof.

B. Check Questions:

1. How long did it take the student to learn the type face and size of the characters he used on this job?
2. How long did it take him to learn the job case?
3. Did he experience difficulty setting type in the stick?
4. Did the student show aptitude in moving the type from the stick to the galley?
5. Did he experience difficulty in typing the type?
6. How many mistakes were in his proof?

II. Second Check

A. Job

1. Set and print a three line letter return using two sizes of type.

B. Check Questions

1. Did the student have trouble in locking the form?

2. Did the student show unusual ability in making ready press?
3. Was his work well centered?
4. Was the student careless in operating the press?

III. Third Check

A. Job

1. Set and print a handbill using at least three sizes of type.

B. Check Questions

1. Did the pupil select appropriate type faces?
2. Did the bill have balance, harmony and proportion?
3. Was it printed with the correct impression?

IV. Final Check

A. Job

1. Set and print a circular letter using 12 point Gothic.

B. Check Questions

1. Did his work show justification and spacing to be correct?
2. Were all the type characters from the same font?
3. Was the printing too heavy? too light? or acceptable?
4. Was his work well centered?
5. Did he show aptitude in operating the press?
6. Did he consume more than average time on this job?

INSTRUCTIONAL UNIT X
UTILITIES OCCUPATIONAL CLUSTER

GENERAL EXPLORATION

These questions are to be answered and given to the instructor the day following the visit.

I. Units to be observed

A. Stoker Department

1. How many stokers were there?
2. What are the duties of the men who operate the stokers?
3. What are retarts?

B. Extractor

1. What process takes place in the extractor?
2. What impurities are extracted?
3. Are the impurities utilized?

C. Condensor

1. What is the purpose of a condensor?
2. How is gas purified?
3. Why does gas pass through lime?
4. What safety precautions are necessary in making gas?

MASTER SHEET FOR UTILITIES

This is the related occupational information which a pupil should learn in Unit X, Utilities Occu-

pational Cluster.

- I. These items of occupational information are to be taught in the classroom.
 1. How carbon compounds of the coal are decomposed.
 2. How gas passes from the coke through water.
 3. How gas is purified by passing through water.
 4. Know waste or impurities such as tar and amonia.
 5. Know how rotary pump functions in passing gas through tar extractor.
 6. How gas goes to condensor from the extractor.
 7. How water and gas circulate through the condensor.
 8. Why gas is forced through porous materials.
 9. Why gas passed through lime for purification.
 10. Safety precautions in making coal gas.

MASTER SHEET FOR UTILITIES

These are the occupational jobs to be learned in Unit X, Utilities Occupational Cluster.

- III. These units will be taught by industry through a co-operative training program:
 1. Shovel coal in hoppers.
 2. Operate stokers.
 3. Operate gas and water controls.
 4. To regulate the flow of gas through the extractor.
 5. Operate condenser controls.

CHECK FOR COAL GAS MANUFACTURE

I. First Exploratory Check

A. Job

1. Feed hoppers and operate stokers.

B. Questions

1. Does the student have the physical qualities necessary for this job?
2. Does he like the work?

II. Final Check

A. Job

1. Operate Condensor.

B. Questions

1. Does he know the principles involved in coal gas manufacture?
2. Does he understand the mechanism of the condenser?
3. Is he responsible on this job?

A P P E N D I X

	Page
1. INFORMATION OF INDUSTRIAL EXCURSIONS	164
2. A SUPPLEMENTARY LIST OF FILMS	170
3. MECHANICAL INDUSTRIES OF MONROE, MICHIGAN	175
4. JOB ANALYSIS SHEETS	178
5. BIBLIOGRAPHY	304

INFORMATION ON INDUSTRIAL EXCURSIONS

Community Resource	Address and Telephone	Person Granting Permission	Point of Observation
Acme Service Station	1 Cass 1250	Harry Gierman	Grease department Platform work
Amendt Milling	317 W. Front 800	Lee Bracey	Flower packing Oiler and sweeper Fireman Feed grinding
Baer, Lou Co. (Upholstering)	1910 W. Front 284	Lou Baer	Upholstering Furniture repairing
Beck Lumber Company	402 E. Front 61	C. W. Beck	Yard man
Brilliant Sign Co.	55 W. Front 875	Lawrence Kutzli	Construction of signs
Buckeye Furniture Company	14 E. First 4	Nate Cohn	Furniture repair Furniture refinishing Upholstering
Consolidated Paper company	921 E. Elm 1200	John H. Meloan	Beater room Embossing Corrugating department Glue department Miehle Press Carton department
Detroit Stoker Company	1510 E. First 1000	John Campbell	Molding department Welding department Assembling department

INFORMATION ON INDUSTRIAL EXCURSIONS cont'd

Community Resource	Address and Telephone	Person Granting Permission	Point of Observation
Drabbe Bakery	31 E. Front 726	Neil Drabbe	Bread wrapping Roll twisting Molding machine
Firestone Auto Sup- ply and Gas Service Stores	325 S. Mon- roe 1090	Harry Weller	Grease department Electrical depart- ment Platform work Stock room
Floral City Furniture Company	1314 N. Telegraph 580	Edward Knabusch	Lumber room Joint making Band sawing Sewing department Upholstering de- partment
Floral City Ice Cream Company	422 S. Mon- roe 368	Clare Staple- ton	Homogenizing and Pasteurizing Refrigeration Packing ice cream
France Stone Com- pany	South Dixie Highway 220	Charles Robinson	Stone crushing Drilling
Franklin Ice Cream Company	130 N. Monroe 693	Lloyd W. White	Ice cream making Homogenizing and Pasteurizing
Handeyside C. A. Const- ruction Com- pany	South Dixie Highway 7135-F22	C. A. Handy- side	Concrete mixing and smoothing Bulldozing Road grading
Hi-Speed Service Station	114 E. Elm 1218	Nick Rohan	Car washing and waxing Grease department Platform work

INFORMATION ON INDUSTRIAL EXCURSIONS cont'd

Community Resource	Address and Telephone	Person Granting Permission	Point of Observation
Hixon & Peterson lumber Company	1115 W. Front	O. H. Lam- mers	Yard man
Home Laundry	302 W. Front 1779	Louis Milhan	Soft press Shirt press Washing department
Hubble, N.B. Roofing Company	702 E. Noble 396	N. B. Hubble	Laying of shingles Rebuilding of roof
Independent Dairy Company	5339 W. Dun- bar Rd. 1031	Orville Hutchin- son	Pasteurizing of milk Bottling Packing department
Knapp Service Station	Bolles Har- bor 1149-M	W. H. Knapp	Car washing and waxing Grease department Platform work
Knapp, W. H. Construction Company	47 S. Tele- graph Rd. 1336	Walter H. Knapp	Concrete mixing waxing Laying of shingles
Lamour Printing Company	12 W. First 1328	Julien Lamour	Setting type by hand Platen press
Lesow & McBride Progressive Printers	20 W. First 456	Art. Lesow	Setting type by hand Making ready press Platen press
Lindsays Garage	1175 W. Front 1875	Rolland Lindsay	Car washing and waxing Grease department

INFORMATION ON INDUSTRIAL EXCURSIONS cont'd

Community Resource	Address and Telephone	Person Granting Permission	Point of Observation
May, Harry Chevrolet Company	905 S. Monroe	Harry May	Stock room Grease department Car bumping department Car washing and waxing
McMillan Printing Company	13 W. Front 237	John H. McMillan	Job cases Hand type setting Platen press
Modern Building Company	318 N. Monroe 633	Arthur Roop	Making of forms Laying of shingles Concrete mixing
Monroe Auto Equipment	1426 E. 2100	George Streicher	Assembling department Molding Punch press Sway bar department Stock room Shock spraying
Monroe Coco Cola Bottling Company	130 N. Monroe	Kasper Deikman	Bottling department
Monroe Foundry & Furnace Company	402 S. Monroe 67	Meyer Rosen	Tool room Chiseling Grinding Molding Crane operating
Monroe Furniture Repair	62 W. Fourth 773	Adam Hoffman	Furniture finishing Upholstering
Monroe Lumber Company	132 W. Front 86	Extra Ganier	Yard man

INFORMATION ON INDUSTRIAL EXCURSIONS cont'd

Community Resource	Address and Telephone	Person Granting Permission	Point of Observation
Monroe Paper Products	80 Brien St. 679	Chas. Raney	Beater room Wax department Corrugation department Metal upsetting Sewing department Miehle press
Monroe Siding and Roofing	27 E. Wil- 1425 low	Wm. E. Wander- see	Laying of shingles Siding Rebuilding roof
Monroe Steel Castings	917 W. Front 579	L. M. Bassini	Core making Molding Core baking Tapping of furnace Chiseling Grinding
National Utilities Company	210 W. Front 319	Jack Bracken- borough	Stokers Condensers Extractors
No-Leak Roofing & Paint Company	720 E. Noble 396	Nate Hubble	Rebuilding of roofs Mixing of paints Laying of shingles
Quality Bakery	115 E. Front 247	Peter Mushung	Molding department Bread wrapping Roll twisting
River Raisin Paper Company	1109 E. Elm 1300	Harry Lamb	Beater room Wet and dry end of tender Die making Paper cutting machine Glue department

INFORMATION ON INDUSTRIAL EXCURSIONS cont'd

Community Resource	Address and Telephone	Person Granting Permission	Point of Observation
Schnorberger Pattern Company	705 W. 4th 1511	Vincent Schnorberger	Furnace tapping
Stockford Construction company	11 Washing- ton 1960	Lawrence Stockford	Concrete mixing Making of forms Nail on siding Laying of flooring
Stoner Mauer Co.	942 E. First 2040	John Stoner	Trip hammer Metal spinning Stamp pressing Molding Furnace tapping
Weis Manufacturing Company	514 Union 1870	H. C. McPike	Spray painting Sanding department Glueing department Punch press Wood finishing department
Wolvering Lumber & Supply company	98 Winches- ter 2045	Axel Becker	Yard man
Woodall Industries Incorporated	54 Huber Drive 1880	J. R. Upjohn	Draw press Conveyor Glue department Metal upsetting Sewing department Embossing department

A SUPPLEMENTARY LIST OF FILMS

These films may be shown if the instructor finds need to supplement those already listed in Chapter V.

I. Automotive

Title	Reels	Silent	Sound	Dis. No.	Cost Plus Tran.
The Automobile	1	X		2	75¢
Automobile Lubrication	1	X		1	40¢
The Evolution of the Oil Industry	4	X		1	40¢
Metals of a Motor Car	2	X		1	40¢
Refining Crude Oil	1	X		2	75¢
The Story of Gasoline	2	X		1	40¢
Story of Lubricating Oil.	2	X		1	40¢
Story of a Spark Plug	2	X		1	40¢
The Story of a Storage Battery	2	X		1	40¢
Story of the Tire	2	X		1	40¢
The Rouge Plant	3		X	1	50¢
Science Rules the Rouge	2		X	1	50¢
Trip through a Motor Factory	2	X		2	75¢

II. Baking and Milling

Title	Reels	Silent	Sound	Dis. No.	Cost Plus Trans.
From Wheat to Bread	1	X		2	75¢
History of Breadmaking	1	X		2	75¢
In the Dough	2	X		1	40¢
Our Daily Bread	1	X		1	40¢
Story of a Loaf of Bread	3	X		1	40¢

III. Building and Construction

The Blade Grader	1	X		1	40¢
Building the Mount Vernon Memorial Highway	2	X		1	40¢
Construction that Endures	1	X		1	40¢
Earth Moving	1	X		1	40¢
Elevating Graders	1	X		1	40¢
From Mountain to Cement Sack	1	X		1	40¢
Home Builders	1	X		2	75¢

IV. Dairy, Ice Cream, Bottling

The Milk Man as a Community Helper	1	X		2	75¢
Quality Milk	1	X		1	60¢
Refrigeration	1	X		1	\$1.00

V. Foundry				
Title	Reels	Silent	Sound	Dis. No. Cost Plus Tran.
Modern Metal Working with Oxy-acetylene Flame	2	X		1 40¢
Oxwelding and Cutting	1	X		1 40¢
Oxwelding for Profit	1	X		1 40¢
Steel--Flat Rolled Products	1	X		1 40¢
Steel--The Making of	1	X		1 40¢
Steel--Pipe and Tube Manufacture	1	X		1 40¢
Steel--Wire and Wire Products	1	X		1 40¢
VI. Lumber Etc.				
The Conquest of the Forest	1	X		1 40¢
Home Builders	1	X		2 75¢
Furniture Making	1	X		2 75¢
From Rags to Roofs	2	X		1 40¢
The Wood Eternal	1½	X		1 40¢
VII. Laundry				
Clean Clothes	2	X		2 75¢
VIII. Paper				
Making a Book	1	X		2 75¢
Tree to Newspaper	1	X		2 75¢

VIII. Paper cont'd.

Title	Reels	Silent	Sound	Dis. No.	Cost Plus Tran.
The World of Paper	2	X		1	40¢

IX. Printing

Making a Book	1	X		2	75¢
Tree to Newspaper	1	X		2	75¢

X. Utilities

Coal Gas--The Manufacture of	2	X		2	75¢
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FILM DISTRIBUTERS

(1) University of Colorado Film Library

Boulder, Colorado.

(2) Akin and Bagshaw, Inc.

1425 Williams Street

Denver, Colorado.

Job Sample Job Analysis Sheet

Physical Requirements (Jobs)

1. () Standing
2. () Sitting
3. () Moving
4. () Stooping
5. () Walking
6. () Climbing
7. () Reaching
8. () Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. ()
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. () Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. () Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. () Slow

Employment Conditions

1. () Permanent
2. () Seasonal

Working Conditions

1. () Hours per day
2. () Starting time
3. () Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. () Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

MECHANICAL INDUSTRIES OF MONROE, MICHIGAN

(Chamber of Commerce Report, 1939)

1. Acme Service Station
2. Amendt Milling
3. Andy's Service Station
4. Assenmacher and Henrish Gas Station
5. Baer Lou Co. (Upholstering)
6. Beck Lumber Company
7. Boehm Service Station
8. Borgess Avenue Dairy
9. Brilliant Sign Company
10. Buckeye Furniture Company
11. Cleff and Smitty Service Station
12. Consolidated Paper Company
13. Detroit Stoker Company
14. Diehl's Bakery
15. Drabbe Bakery
16. Economy Garage
17. Elliott's Super Service
18. Firestone Auto Supply & Gas Service Station
19. Floral City Furniture
20. Floral City Ice Cream Company
21. France Stone Co.

22. Frank & Bill's Service Station
23. Franklin Ice Cream Company
24. Handeyside, C. A. Construction Company
25. Hanson Standard Service
26. Hi-Speed Service Station
27. Hixon & Peterson Lumber Company
28. Home Laundry
29. Hubble, N. B. Roofing Company
30. Independent Dairy Company
31. Knapp Service Station
32. Knapp, W. H. Construction Company
33. Lamour Printing Company
34. Leonard's Garage
35. Lesow & McBride Progressive Printers
36. Lindsays Garage
37. Marks Thomas Garage
38. May, Harry Chevrolet Company
39. McMillan Printing Company
40. Modern Building Company
41. Monroe Auto Equipment
42. Monroe Baking Company
43. Monroe Coco Cola Bottling Company
44. Monroe Foundry & Furnace Company
45. Monroe Furniture Repair
46. Monroe Lumber Company
47. Monroe Paper Products

48. Monroe Siding and Roofing
49. Monroe Steam Laundry
50. Monroe Steel Castings
51. Mushung Peter (Bakery)
52. National Utilities Company
53. No-Leak Roofing & Paint Company
54. Ohio Clover-Leaf Dairy
55. Payne's Service Station
56. Pic's Service Station
57. Quality Bakery
58. River Raisin Paper Co.
59. Roger's Service Station
60. Schnorberger Pattern Company
61. Stasne Service Station
62. Stockford Construction Company
63. Stoner Mauer Company
64. Tri-State Roofing & Siding Company
65. Weis Manufacturing Company
66. Wolverine Lumber & Supply Company
67. Woodall Industries Incorporated

Job Annealer

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Annealing
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex-Male
8. () Age preferred 18-45

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. () Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Employment Conditions

1. (1) Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 45¢ / hr.
 - b. per day
 - c. per week
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Assembly Man (Piston)

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. () Moving
4. () Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. () Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 20-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$28
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Assemble piston
2. () Test pistons
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. (1) Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Assembly Man (Shock absorber)

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. () Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. (1) Rapid
2. () Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (8) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$30
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Assemble shocks
2. ()
3. ()
4. ()

Intelligence Required

1. (1) High
2. () Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. (1) Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Assembly Valve Men

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Assemble valves
2. () Test valves
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 30-40

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Employment Conditions

1. () Permanent
2. () Seasonal
3. (1) Intermittent

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week Aver. \$30.00
 - 1 d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Band Saw Operators

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$40
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Sorts stock
2. () Sharpens saw blades
3. () Operates band saw
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Back Tender

Physical Requirements (Jobs)

1. (3) Standing
2. () Sitting
3. (3) Moving
4. (3) Stooping
5. (2) Walking
6. (3) Climbing
7. (3) Reaching
8. (2) Lifting
9. (3) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (3) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (3) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 3 c. per week aver. \$35
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Feed paper on dryer rolls
2. () Regulate thickness of sheet
3. () Caliper and test sheets
4. () Regulate water in sheet

Intelligence Required

1. () High
2. (3) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (3) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

PRINTINGJob Battery Man

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (6) Starting time
3. (2) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week Aver. \$32
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Replace fuses & bulbs
2. () Charge batteries
3. () Adjust carburetors
4. () Adjust timing
Locate & repair shorts

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. (1) Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Beater Supt.

Physical Requirements (Jobs)

1. (3) Standing
2. () Sitting
3. (3) Moving
4. (3) Stooping
5. (3) Walking
6. () Climbing
7. (3) Reaching
8. (3) Lifting
9. (2) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex - Male
8. () Age preferred 21-45

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (3) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (3) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 3 c. per week Aver. \$25.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Add color
2. () Put paper in beater
3. () Put in rosin size
4. () Add sulfite paper

Intelligence Required

1. () High
2. (3) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (2) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (3) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Blacksmith

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. (1) Weight
2. () Height
3. (1) Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (8) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$33
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Repairs Machines
2. () Weld
3. () Forge metal
4. () Temper steel

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Blacksmith

Physical Requirements (Jobs)

1. (2) Standing
2. () Sitting
3. (2) Moving
4. (2) Stooping
5. (2) Walking
6. () Climbing
7. (2) Reaching
8. (2) Lifting
9. (2) Rapid temperature changes

Physical Requirements (Personal)

1. (1) Weight
2. () Height
3. (2) Strength
4. (2) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 18-45

Mental Requirements

1. (1) Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (2) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (2) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour
 - b. per day
 - c. per week aver. \$30
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Repair broken tools and
2. () machines
3. () Make jigs
4. () Temper

Intelligence Required

1. () High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. (1) Blueprints
3. () Technical Instruments
4. () Engineering
5. (2) Materials
6. (1) Equipment
7. (2) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (2) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Bottler

Physical Requirements (Jobs)

1. (2) Standing
2. () Sitting
3. (2) Moving
4. (2) Stooping
5. (2) Walking
6. () Climbing
7. (1) Reaching
8. (2) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-45

Mental Requirements

1. (1) Read
2. (1) Write
3. () Spell
4. () Mathematics
5. (2) Speak English

Turn over in Jobs

1. () Rapid
2. (2) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 50¢
 - b. per day
 - c. per week aver. \$22
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Wash bottles
2. (2) Fill bottles
3. () Wash cans
4. () Operate bottling machine

Intelligence Required

1. () High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Bottle Washer

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 18-45

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. (1) Rapid
2. () Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 45¢
 - b. per day
 - c. per week aver. \$22
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Wash bottles
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. () Medium
3. (1) Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Bread wrapper

Physical Requirements (Jobs)

1. (2) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (2) Reaching
8. (2) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 18-30

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (2) Mathematics
5. (2) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. (1) Slow

Working Conditions

1. (9) Hours per day
2. (11) Starting time
3. (8) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 22 c. per week \$20
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. (2) Wrap bread
2. () Pack cookies and
3. () doughnuts in boxes
4. () Wrap rolls in cellophane

Intelligence Required

1. () High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (2) Materials
6. (2) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Bulldozer

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. (1) Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Operate caterpillar
2. () tractor
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 21-45

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. (3) Slow

Employment Conditions

1. () Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 80¢
 - b. per day
 - c. per week aver. \$38.50
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Bumper (Helper)

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. (1) Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour 75¢
 - b. per day
 - c. per week Aver. \$36.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Bump out car parts
2. () Paint repaired parts
3. () Line up wheels
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Carpenter (Rough)

Physical Requirements (Jobs)

1. (4) Standing
2. () Sitting
3. (4) Moving
4. (4) Stooping
5. (4) Walking
6. (4) Climbing
7. (4) Reaching
8. (4) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 21-45

Mental Requirements

1. (2) Read
2. (2) Write
3. (2) Spell
4. (4) Mathematics
5. (4) Speak English

Turn over in Jobs

1. () Rapid
2. (3) Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 2 a. per hour 60¢
 - b. per day
 - c. per week aver. \$29
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. (3) Make forms
2. () Lay steel supports
3. () Rein concrete
4. (2) Put on siding
Nail on primary roof

Intelligence Required

1. (1) High
2. (3) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (4) Materials
6. (3) Equipment
7. (4) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (2) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Carpenters (Rough)

Physical Requirements (Jobs)

1. (4) Standing
2. (1) Sitting
3. (4) Moving
4. (4) Stooping
5. (4) Walking
6. (4) Climbing
7. (4) Reaching
8. (4) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex - Male
8. () Age preferred 18-50

Mental Requirements

1. (4) Read
2. (4) Write
3. (4) Spell
4. (4) Mathematics
5. (4) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (4) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - 4 a. per hour
 - b. per day
 - c. per week Aver. \$29.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Build rough projects-truck
2. () racks, chicken coops, etc.
3. ()
4. ()

Intelligence Required

1. (2) High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (4) Materials
6. (4) Equipment
7. (4) Supplies
8. () Business

Educational Requirements

1. (4) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal
3. (4) Intermittent

Emotional Stability Required

1. (3) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Car Washer and Waxer

Physical Requirements (Jobs)

1. (5) Standing
2. () Sitting
3. (5) Moving
4. (5) Stooping
5. (5) Walking
6. (5) Climbing
7. (5) Reaching
8. () Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 18-40

Mental Requirements

1. (1) Read
2. (1) Write
3. () Spell
4. () Mathematics
5. (5) Speak English

Turn over in Jobs

1. (4) Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (8) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour 25¢
 - b. per day
 - c. per week aver. \$15
 - 3 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Wash cars
2. () Wax cars
3. () Clean floors and equipment
4. ()

Intelligence Required

1. () High
2. (4) Medium
3. (1) Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (5) Materials
6. (3) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (3) Permanent
2. (2) Seasonal

Emotional Stability Required

1. (5) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Chislaler

Physical Requirements (Jobs)

1. (2) Standing
2. (1) Sitting
3. (2) Moving
4. (2) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (2) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. (1) General Health
7. () Sex ~~Male~~
8. () Age preferred 21-45

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (2) Mathematics
5. (2) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 1 c. per week Aver. \$30.00
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Chislaler castings
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. (1) Blueprints
3. () Technical Instruments
4. () Engineering
5. (2) Materials
6. (2) Equipment
7. (2) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Concrete Mixer

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Mix concrete
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. (1) Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 21-40

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. (1) Rapid
2. () Medium
3. () Slow

Employment Conditions

1. () Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 40¢
 - b. per day
 - c. per week aver. \$20
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Concrete Mixer and Finisher

Physical Requirements (Jobs)

1. (3) Standing
2. () Sitting
3. (3) Moving
4. (3) Stooping
5. (3) Walking
6. (2) Climbing
7. (3) Reaching
8. (3) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 21-45

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (2) Mathematics
5. (3) Speak English

Turn over in Jobs

1. (1) Rapid
2. (1) Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 45¢
 - b. per day
 - c. per week aver. \$22
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate cement mixer
2. () Smooth concrete
3. () Keep up machinery
4. ()

Intelligence Required

1. () High
2. (3) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (3) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Conveyer Operator

Physical Requirements (Jobs)

1. () Standing
2. (1) Sitting
3. (1) Moving
4. () Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex -Male or female
8. () Age preferred 18-35

Mental Requirements

1. () Read
2. () Write
3. (1) Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. () Hours per day
2. () Starting time
3. () Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week Aver. \$30.00
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Feed and catch on conveyer
2. () Watch laquer supply
3. () Control temperature
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical -none
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal
3. (1) Intermittent

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Core-Maker

Physical Requirements (Jobs)

1. (4) Standing
2. (1) Sitting
3. (3) Moving
4. (4) Stooping
5. () Walking
6. () Climbing
7. (3) Reaching
8. (4) Lifting
9. (3) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex -Male
8. () Age preferred 21-45

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (4) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. (3) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week Aver. \$30.00
 - 4 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. (3) Make cores
2. (2) Bake cores
3. ()
4. ()

Intelligence Required

1. () High
2. (4) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (3) Materials
6. (1) Equipment
7. (2) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal
3. (4) Part time

Emotional Stability Required

1. (4) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Cookie, Roll, and Doughnut Wrapper

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. () Moving
4. () Stooping
5. () Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 13-25

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (9) Hours per day
2. (10) Starting time
3. (7) Quitting time
4. () Wages
 - a. per hour
 - 1 b. per day aver. \$18
 - c. per week
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Wrap cookies, rolls,
2. () and doughnuts
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Corn Starch Mixer

Physical Requirements (Jobs)

1. (2) Standing
2. () Sitting
3. (2) Moving
4. () Stooping
5. () Walking
6. () Climbing
7. () Reaching
8. () Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex MALE
8. () Age preferred 21-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (2) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (2) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - 2 a. per hour
 - b. per day
 - c. per week Aver. \$22.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Mix corn starch
2. () Operate corn starch mixer
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Corrugator

Physical Requirements (Jobs)

1. (3) Standing
2. (2) Sitting
3. (3) Moving
4. (3) Stooping
5. (3) Walking
6. (1) Climbing
7. (3) Reaching
8. (3) Lifting
9. (3) Rapid temperature changes

Jobs Performed by Worker

1. () Operate corrugator
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (3) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-45

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (3) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. (2) Slow

Employment Conditions

1. () Permanent
2. () Seasonal
3. (1) Part time

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - 1 a. per hour
 - b. per day
 - 2 c. per week Aver. \$42.00
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Cracker (Stone)

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. (1) Weight
2. () Height
3. (1) Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 65¢
 - b. per day
 - c. per week aver. \$32
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate cracker
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Crane Operator

Physical Requirements (Jobs)

1. (3) Standing
2. (3) Sitting
3. (1) Moving
4. (2) Stooping
5. () Walking
6. (3) Climbing
7. (1) Reaching
8. () Lifting
9. (3) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex-Male
8. () Age preferred 21-45

Mental Requirements

1. (1) Read
2. (2) Write
3. (2) Spell
4. (2) Mathematics
5. (3) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. (2) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 3 c. per week Aver. \$30.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Take steel ladels from furnace
2. () to pouring room.
3. () Bring empty ladels to furnace.
4. () Bring in scrap stock.

Intelligence Required

1. (1) High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (3) Materials
6. (2) Equipment
7. (2) Supplies
8. () Business

Educational Requirements

1. (2) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (3) Permanent
2. () Seasonal

Emotional Stability Required

1. (2) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Creaser

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. () Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Feed creaser
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex-Male
8. () Age preferred 20-30

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical-none
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Employment Conditions

1. () Permanent
2. () Seasonal
3. (1) Intermittent

Working Conditions

1. () Hours per day
2. () Starting time
3. () Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week Aver. \$27.00
 - 1 d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Flour packer

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Fill sacks
2. () Sew top of sacks
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-45

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Mental Requirements

1. (1) Read
2. (1) Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Employment Conditions

1. (1) Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 70¢
 - b. per day
 - c. per week aver. \$34
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Die Maker

Physical Requirements (Jobs)

1. (4) Standing
2. (4) Sitting
3. (4) Moving
4. (2) Stooping
5. (4) Walking
6. (2) Climbing
7. (3) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (2) Mathematics
5. (4) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (4) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week Aver. \$48.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Make dies
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (4) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (3) Materials
6. (3) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. () Seasonal
3. (1) Part time or Intermittent

Emotional Stability Required

1. (3) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Dipper and Dryer (Paint)

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 18-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 40¢
 - b. per day
 - c. per week aver. \$20
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Dips projects in paint
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Draw Press Operator

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. () Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. () Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex -Male
8. () Age preferred 25-30

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. () Hours per day
2. () Starting time
3. () Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week
 - 1 d. piece work Av. \$27.00
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Feed presses
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical -none
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal
3. (1) Intermittent

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Driller (Stone)

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Drill holes in rock
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 21-45

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Employment Conditions

1. () Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 65¢
 - b. per day
 - c. per week aver. \$32
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Drill Press Operater

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Operate drill press
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Employment Conditions

1. (1) Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 40¢
 - b. per day
 - c. per week aver. \$20
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Electric Welder

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Jobs Performed by Worker

1. () Electric welds
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-40

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs.

1. () Rapid
2. () Medium
3. (1) Slow

Employment Conditions

1. () Permanent
2. () Seasonal
3. (1) Intermittent

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour \$.60 to \$2
 - b. per day
 - c. per week
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Embossing Operator

Physical Requirements (Jobs)

1. Standing
2. Sitting
3. Moving
4. Stooping
5. Walking
6. Climbing
7. Reaching
8. Lifting
9. Rapid temperature changes

Physical Requirements (Personal)

1. Weight
2. Height
3. Strength
4. Eyesight
5. Hearing
6. General Health
7. Sex Male
8. Age preferred 21-40

Mental Requirements

1. Read
2. Write
3. Spell
4. Mathematics
5. Speak English

Turn over in Jobs

1. Rapid
2. Medium
3. Slow

Working Conditions

1. Hours per day
2. Starting time
3. Quitting time
4. Wages
 - a. per hour
 - b. per day
 - c. per week Aver. \$25.00
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. Operate embossing machine
2.
3.
4.

Intelligence Required

1. High
2. Medium
3. Low

Technical Knowledge

1. Drafting
2. Blueprints
3. Technical Instruments
4. Engineering
5. Materials
6. Equipment
7. Supplies
8. Business

Educational Requirements

1. Grade schools
2. High school
3. Vocational
4. Technical
5. College

Employment Conditions

1. Permanent
2. Seasonal
3. Part time

Emotional Stability Required

1. Happy
2. Genial
3. Calm
4. Staid

Working Conditions

1. Light
2. Ventilation
3. Temperature

Employer-Employee Relationships

1. Close
2. Remote

Safety

1. Wearing apparel
2. Guards on machines
3. Inclosed belts, etc.

Job Expansion Maker

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 25-50

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 80¢
 - b. per day
 - c. per week aver. \$38.50
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Build forms
2. () Make expansions
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. (1) Blueprints
3. (1) Technical Instruments
4. () Engineering
5. (1) Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Feed Grinder

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. () Stooping
5. (1) Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-50

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 70¢
 - b. per day
 - c. per week aver \$34
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Grind feeds
2. () Mix feeds
3. () Crack corn
4. () Shell corn

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Fireman (Boiler)

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. (1) Read
2. (1) Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 1 c. per week \$45
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate boiler
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. (1) Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Flat Press Operator

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Jobs Performed by Worker

1. () Operate ironer
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Female
8. () Age preferred 18-30

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Employment Conditions

1. (1) Permanent
2. () Seasonal

Working Conditions

1. (9) Hours per day
2. (8) Starting time
3. (6) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 1 c. per week aver. \$14
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Furnace Tapper

Physical Requirements (Jobs)

1. (3) Standing
2. () Sitting
3. (4) Moving
4. (4) Stooping
5. (4) Walking
6. () Climbing
7. (4) Reaching
8. (4) Lifting
9. (4) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. (1) Strength
4. (1) Eyesight
5. () Hearing
6. (1) General Health
7. () Sex Male
8. () Age preferred 21-45

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (4) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. (3) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$30
 - 4 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Load furnace
2. (4) Tap furnace
3. ()
4. ()

Intelligence Required

1. () High
2. (4) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (4) Materials
6. (2) Equipment
7. (3) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. () Seasonal

Emotional Stability Required

1. (4) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Furnace Tapper and Pourer

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. (1) Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 30-40

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - 1 a. per hour 75¢
 - b. per day
 - c. per week aver. \$36
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Mix metals
2. () Pour metal or plaster
3. () forms for mold
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Furniture Repairer

Physical Requirements (Jobs)

- 1. (2) Standing
- 2. (2) Sitting
- 3. (2) Moving
- 4. (2) Stooping
- 5. (2) Walking
- 6. () Climbing
- 7. (2) Reaching
- 8. (2) Lifting
- 9. () Rapid temperature changes

Physical Requirements (Personal)

- 1. () Weight
- 2. () Height
- 3. () Strength
- 4. () Eyesight
- 5. () Hearing
- 6. () General Health
- 7. () Sex Male
- 8. () Age preferred 18-45

Mental Requirements

- 1. (1) Read
- 2. (1) Write
- 3. (1) Spell
- 4. (2) Mathematics
- 5. (2) Speak English

Turn over in Jobs

- 1. () Rapid
- 2. () Medium
- 3. (2) Slow

Working Conditions

- 1. (8) Hours per day
- 2. (7) Starting time
- 3. (4) Quitting time
- 4. () Wages
 - 1 a. per hour 50¢
 - b. per day
 - 1 c. per week aver. \$30
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

- 1. () Refinish furniture
- 2. () Some simple upholstering
- 3. () Repair furniture
- 4. ()

Intelligence Required

- 1. () High
- 2. (2) Medium
- 3. () Low

Technical Knowledge

- 1. () Drafting
- 2. () Blueprints
- 3. () Technical Instruments
- 4. () Engineering
- 5. (2) Materials
- 6. (1) Equipment
- 7. (1) Supplies
- 8. () Business

Educational Requirements

- 1. () Grade schools
- 2. (1) High school
- 3. () Vocational
- 4. () Technical
- 5. () College

Employment Conditions

- 1. (2) Permanent
- 2. () Seasonal

Emotional Stability Required

- 1. (1) Happy
- 2. () Genial
- 3. () Calm
- 4. () Staid

Working Conditions

- 1. () Light
- 2. () Ventilation
- 3. () Temperature

Employer-Employee Relationships

- 1. () Close
- 2. () Remote

Safety

- 1. () Wearing apparel
- 2. () Guards on machines
- 3. () Inclosed belts, etc.

Job Gas Water Operator

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-40

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour 80¢
 - b. per day
 - c. per week aver. \$38
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate condenser
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Gluer

Physical Requirements (Jobs)

1. () Standing
2. (1) Sitting
3. (1) Moving
4. () Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. () Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 45¢
 - b. per day
 - c. per week aver. \$22
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Glues boxes and drawers
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Gluer and Sander

Physical Requirements (Jobs)

- 1. (1) Standing
- 2. () Sitting
- 3. (1) Moving
- 4. (1) Stooping
- 5. (1) Walking
- 6. () Climbing
- 7. (1) Reaching
- 8. (1) Lifting
- 9. () Rapid temperature changes

Physical Requirements (Personal)

- 1. () Weight
- 2. () Height
- 3. () Strength
- 4. () Eyesight
- 5. () Hearing
- 6. () General Health
- 7. () Sex Male
- 8. () Age preferred 21-40

Mental Requirements

- 1. () Read
- 2. () Write
- 3. () Spell
- 4. () Mathematics
- 5. (1) Speak English

Turn over in Jobs

- 1. () Rapid
- 2. () Medium
- 3. (1) Slow

Working Conditions

- 1. (8) Hours per day
- 2. (7) Starting time
- 3. (5) Quitting time
- 4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver \$28
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

- 1. () Glues furniture
- 2. () Assembles furniture
- 3. () Operates sander
- 4. () Sands by hand

Intelligence Required

- 1. () High
- 2. (1) Medium
- 3. () Low

Technical Knowledge

- 1. () Drafting
- 2. () Blueprints
- 3. () Technical Instruments
- 4. () Engineering
- 5. (1) Materials
- 6. (1) Equipment
- 7. (1) Supplies
- 8. () Business

Educational Requirements

- 1. () Grade schools
- 2. () High school
- 3. () Vocational
- 4. () Technical
- 5. () College

Employment Conditions

- 1. (1) Permanent
- 2. () Seasonal

Emotional Stability Required

- 1. (1) Happy
- 2. () Genial
- 3. () Calm
- 4. () Staid

Working Conditions

- 1. () Light
- 2. () Ventilation
- 3. () Temperature

Employer-Employee Relationships

- 1. () Close
- 2. () Remote

Safety

- 1. () Wearing apparel
- 2. () Guards on machines
- 3. () Inclosed belts, etc.

Job Greaser

Physical Requirements (Jobs)

1. (4) Standing
2. () Sitting
3. (5) Moving
4. (5) Stooping
5. (5) Walking
6. (5) Climbing
7. (5) Reaching
8. (5) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 18-40

Mental Requirements

1. (5) Read
2. (5) Write
3. (5) Spell
4. (5) Mathematics
5. (5) Speak English

Turn over in Jobs

1. () Rapid
2. (4) Medium
3. (1) Slow

Working Conditions

1. (9) Hours per day
2. (6) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour 40¢
 - b. per day
 - c. per week aver. \$29
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Change oil in cars
2. () Grease cars
3. () Reline brakes
4. () Platform work when not busy

Intelligence Required

1. () High
2. (5) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (4) Materials
6. (5) Equipment
7. (5) Supplies
8. () Business

Educational Requirements

1. (2) Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (5) Permanent
2. () Seasonal

Emotional Stability Required

1. (5) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Grinder

Physical Requirements (Jobs)

1. (4) Standing
2. (1) Sitting
3. (4) Moving
4. (4) Stooping
5. (3) Walking
6. () Climbing
7. (3) Reaching
8. (4) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. (1) General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. (2) Read
2. (2) Write
3. (2) Spell
4. (3) Mathematics
5. (4) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (4) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour
 - 1 b. per day
 - 1 c. per week aver. \$30
 - 3 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Grind casting
2. () Polish casting
3. ()
4. ()

Intelligence Required

1. () High
2. (4) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. (3) Technical Instruments
4. () Engineering
5. (4) Materials
6. (4) Equipment
7. (3) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (3) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Hand Type Setter

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-45

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (9) Hours per day
2. (8) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week \$28
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Set type
2. () Run proof
3. () Distribute type
4. ()

Intelligence Required

1. (1) High
2. () Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Hand Type Setter and Platen Pressman

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. () Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (8) Starting time
3. (5) Quitting time
4. () Wages
 - 1 a. per hour 45¢
 - b. per day
 - c. per week aver. \$22
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Sets type by hand
2. () Operates platen press
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

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229

Job Heat Treator

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour 65¢
 - b. per day
 - c. per week Aver. \$32.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate heat treating furnace
2. () Load and unload pieces from furnace
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
 2. () Seasonal
 3. (1) Intermittent
- Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Homogenizer and Pasteurizer

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-45

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 1 c. per week aver. \$40
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Mix ingredient for ice
2. () cream
3. () Sterilize all ingredients
4. () Break down fat

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed. belts, etc.

Job Ice Cream Maker

Physical Requirements (Jobs)

1. (2) Standing
2. () Sitting
3. (2) Moving
4. (2) Stooping
5. (2) Walking
6. () Climbing
7. (2) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. (2) Read
2. (2) Write
3. (2) Spell
4. (2) Mathematics
5. (2) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (2) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 2 c. per week aver. \$30
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Make ice cream
2. () Package ice cream
3. () Clean equipment
4. ()

Intelligence Required

1. () High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (2) Materials
6. (2) Equipment
7. (2) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job ~~Ice Cream and Butter~~ Packer

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male and Female
8. () Age preferred 18-30

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. (1) Rapid
2. () Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 35¢
 - b. per day
 - c. per week aver. \$17
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Wrap butter
2. () Cut ice cream into molds
3. () Put stick in ice cream
4. () Dip frozen stick//molds
Wrap bulk ice cream

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer--Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Ink Mixer

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex-Male
8. () Age preferred 18-45

Mental Requirements

1. (1) Read
2. (1) Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - 1 a. per hour \$1.00-1.30
 - b. per day
 - c. per week
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Mix inks
2. () Test ink
3. () Keep records
4. ()

Intelligence Required

1. (1) High
2. () Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. (1) Engineering
5. (1) Materials
6. () Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Joint Makers

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Make joints
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. () Equipment
7. (1) Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Employment Conditions

1. (1) Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$25
 - 1 d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Ladeler

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 18-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (8) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week Aver. \$30.
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Oil sand molds
2. () Paint molds
3. () Operate blow-torch to case-
4. () harden molds
Pour metal

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal
3. (1) Part time

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Liner

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. () Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Feed press
2. () Watch glue supply
3. () Check the rollers
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex - Male
8. () Age preferred 20-30

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical -none
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Employment Conditions

1. () Permanent
 2. () Seasonal
 3. (1) Intermittent
- Emotional Stability Required

Working Conditions

1. () Hours per day
2. () Starting time
3. () Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week Aver. \$25.00
 - d. piece work
 - e. bonus
 - f. commission

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Machine Tender

Physical Requirements (Jobs)

1. (3) Standing
2. () Sitting
3. (3) Moving
4. (3) Stooping
5. (3) Walking
6. (3) Climbing
7. (3) Reaching
8. (3) Lifting
9. (3) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (3) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. (2) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - 2 a. per hour
 - b. per day
 - c. per week Aver. \$38.50
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Control of stuffing box
2. () Replaces felt
3. () Controls thickness of sheet
4. () Feed sheet to dryer roll

Intelligence Required

1. () High
2. (3) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. (1) Seasonal

Emotional Stability Required

1. (2) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Marker and Sorter

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Female
8. () Age preferred 18-30

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (9) Hours per day
2. (8) Starting time
3. (6) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week \$12
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Sort and mark laundry
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Metal Shaper

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week Aver. \$28.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Form tubes
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal
3. (1) Intermittent

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Metal Spinner

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. () Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Spin one job
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. (1) Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal
3. (1) Intermittent

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer--Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Metal Upsetters

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. () Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. () Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-30

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. () Hours per day
2. () Starting time
3. () Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week Aver. \$28.00
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate press
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal
3. (1) Intermittent

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Mill Weight

Physical Requirements (Jobs)

1. Standing
2. Sitting
3. Moving
4. Stooping
5. Walking
6. Climbing
7. Reaching
8. Lifting
9. Rapid temperature changes

Physical Requirements (Personal)

1. Weight
2. Height
3. Strength
4. Eyesight
5. Hearing
6. General Health
7. Sex-Male
8. Age preferred 35-40

Mental Requirements

1. Read
2. Write
3. Spell
4. Mathematics
5. Speak English

Turn over in Jobs

1. Rapid
2. Medium
3. Slow

Working Conditions

1. Hours per day
2. Starting time
3. Quitting time
4. Wages
 - a. per hour
 - b. per day
 - 1 c. per week \$40.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. Repair all types of equipment
2. in factory
3.
4.

Intelligence Required

1. High
2. Medium
3. Low

Technical Knowledge

1. Drafting
2. Blueprints
3. Technical Instruments
4. Engineering
5. Materials
6. Equipment
7. Supplies
8. Business

Educational Requirements

1. Grade schools
2. High school
3. Vocational
4. Technical
5. College

Employment Conditions

1. Permanent
2. Seasonal

Emotional Stability Required

1. Happy
2. Genial
3. Calm
4. Staid

Working Conditions

1. Light
2. Ventilation
3. Temperature

Employer-Employee Relationships

1. Close
2. Remote

Safety

1. Wearing apparel
2. Guards on machines
3. Inclosed belts, etc.

Job Molder

Physical Requirements (Jobs)

1. (4) Standing
2. () Sitting
3. (3) Moving
4. (4) Stooping
5. (3) Walking
6. () Climbing
7. (2) Reaching
8. (4) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. (1) Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex male
8. () Age preferred 18-45

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (4) Speak English

Turn over in Jobs

1. () Rapid
2. (2) Medium
3. (2) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$25
 - 4 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Make molds
2. () Sometimes cast as well
3. () as mold
4. ()

Intelligence Required

1. () High
2. (4) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (2) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (4) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Molding Machine Operator (Bread)

Physical Requirements (Jobs)

1. (2) Standing
2. () Sitting
3. (2) Moving
4. (2) Stooping
5. (1) Walking
6. () Climbing
7. () Reaching
8. (2) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 18-30

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (2) Slow

Working Conditions

1. (9) Hours per day
2. (11) Starting time
3. (8) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 2 c. per week aver. \$25
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. (2) Cut bread dough
2. (2) Operate molder
3. (2) Turn dough when risen
4. (1) Fills bread pans

Intelligence Required

1. () High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (2) Materials
6. (2) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. () Seasonal

Emotional Stability Required

1. (2) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Oiler and Sweeper

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. () Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. () Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 1. a. per hour 40¢
 - b. per day
 - c. per week aver. \$17
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Sweep floors
2. () Oil machines
3. () Shine shafts
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Oven and Steam Room Operator

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 18-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (9) Hours per day
2. (10) Starting time
3. (7) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 1 c. per week \$25
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate oven
2. () Bake bread
3. () Control steam room
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Oxyacetylene Welder

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex-Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week \$35.00
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Clean castings by cutting off
2. () risers.
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. () Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Painter

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Paint by hand
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 21-45

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. () Slow

Employment Conditions

1. () Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 60¢
 - b. per day
 - c. per week
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Painter

Physical Requirements (Jobs)

- 1. (3) Standing
- 2. (3) Sitting
- 3. (3) Moving
- 4. (3) Stooping
- 5. (3) Walking
- 6. (3) Climbing
- 7. (3) Reaching
- 8. (3) Lifting
- 9. () Rapid temperature changes

Physical Requirements (Personal)

- 1. () Weight
- 2. () Height
- 3. () Strength
- 4. () Eyesight
- 5. () Hearing
- 6. () General Health
- 7. () Sex Male
- 8. () Age preferred 21-45

Mental Requirements

- 1. () Read
- 2. () Write
- 3. () Spell
- 4. (2) Mathematics
- 5. (3) Speak English

Turn over in Jobs

- 1. () Rapid
- 2. (3) Medium
- 3. () Slow

Working Conditions

- 1. (8) Hours per day
- 2. (7) Starting time
- 3. (4) Quitting time
- 4. () Wages
 - 3 a. per hour 60¢
 - b. per day
 - c. per week aver. \$29
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

- 1. () Paint renovated parts
- 2. () Paint siding
- 3. () Help apply siding and roofs
- 4. ()

Intelligence Required

- 1. () High
- 2. (3) Medium
- 3. () Low

Technical Knowledge

- 1. () Drafting
- 2. () Blueprints
- 3. () Technical Instruments
- 4. () Engineering
- 5. (1) Materials
- 6. (1) Equipment
- 7. () Supplies
- 8. () Business

Educational Requirements

- 1. () Grade schools
- 2. () High school
- 3. () Vocational
- 4. () Technical
- 5. () College

Employment Conditions

- 1. () Permanent
- 2. (3) Seasonal

Emotional Stability Required

- 1. (2) Happy
- 2. () Genial
- 3. () Calm
- 4. () Staid

Working Conditions

- 1. () Light
- 2. () Ventilation
- 3. () Temperature

Employer-Employee Relationships

- 1. () Close
- 2. () Remote

Safety

- 1. () Wearing apparel
- 2. () Guards on machines
- 3. () Inclosed belts, etc.

Job Painter and Sprayer

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$35
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Paint by hand
2. () Operate paint sprayer
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Paper Cutter (Hand)

Physical Requirements (Jobs)

1. (3) Standing
2. (2) Sitting
3. (3) Moving
4. (3) Stooping
5. (2) Walking
6. (2) Climbing
7. (3) Reaching
8. (3) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-35

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. () Mathematics
5. (3) Speak English

Turn over in Jobs

1. () Rapid
2. (3) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - 3 a. per hour
 - b. per day
 - c. per week aver. \$34
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate cutting machine
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (3) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (3) Materials
6. (2) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. () Seasonal

Emotional Stability Required

1. (3) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Paper Cutting Machine Operator

Physical Requirements (Jobs)

1. (3) Standing
2. () Sitting
3. (3) Moving
4. (3) Stooping
5. () Walking
6. (3) Climbing
7. (3) Reaching
8. (3) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Operate paper cutting machine
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (3) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. (2) Strength
4. (3) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-35

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (3) Materials
6. (3) Equipment
7. () Supplies
8. () Business

Mental Requirements

1. (3) Read
2. (2) Write
3. (1) Spell
4. (2) Mathematics
5. (3) Speak English

Educational Requirements

1. (2) Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. (3) Medium
3. () Slow

Employment Conditions

1. (3) Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - 1 a. per hour \$1.00
 - b. per day
 - c. per week aver. \$48
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Pasteurizer

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. () Stooping
5. () Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-45

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 1 c. per week \$25
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Pasteurize milk
2. () Cool milk
3. () Test for butterfat
4. () content

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Pillow Stuffer

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Female
8. () Age preferred 21-40

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - 1 a. per hour 40¢
 - b. per day
 - c. per week aver. \$20
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate pillow stuffer
2. () Sew pillows
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. (1) Seasonal

Emotional Stability Required

1. () Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Planer Operater

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 1. a. per hour 45¢
 - b. per day
 - c. per week aver. \$22
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate planer
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Pressman (Bronze)

Physical Requirements (Jobs)

1. (3) Standing
2. () Sitting
3. (3) Moving
4. (2) Stooping
5. (2) Walking
6. (2) Climbing
7. (2) Reaching
8. (3) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. (1) Hearing
6. (1) General Health
7. () Sex Male
8. () Age preferred 20-35

Mental Requirements

1. (3) Read
2. (3) Write
3. (3) Spell
4. (1) Mathematics
5. (3) Speak English

Turn over in Jobs

1. () Rapid
2. (2) Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (8) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$36
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate press
2. ()
3. ()
4. ()

Intelligence Required

1. (1) High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

PRINTING

357

Job Pressman(Color)

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. () Moving
4. () Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex-Male
8. () Age preferred 18-30

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - 1 a. per hour 50¢-\$1.25
 - b. per day
 - c. per week
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate press
2. ()
3. ()
4. ()

Intelligence Required

1. (1) High
2. () Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Pressman (Machine)

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. () Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male or Female
8. () Age preferred 21-35

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 50¢
 - b. per day
 - c. per week aver. \$24
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Set up press
2. () Load press
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. (1) Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Pressman (Meihle Press)

Physical Requirements (Jobs)

1. (3) Standing
2. () Sitting
3. (3) Moving
4. () Stooping
5. () Walking
6. (1) Climbing
7. (3) Reaching
8. (2) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. (1) Hearing
6. () General Health
7. () Sex-Male
8. () Age preferred Av. 27

Mental Requirements

1. (3) Read
2. (3) Write
3. (3) Spell
4. (1) Mathematics
5. (3) Speak English

Turn over in Jobs

1. () Rapid
2. (2) Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - 3 a. per hour
 - b. per day
 - c. per week Aver. \$36.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate press
2. ()
3. ()
4. ()

Intelligence Required

1. (1) High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Pressman (Platen)

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 18-45

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (9) Hours per day
2. (8) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week \$28
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate press
2. ()
3. ()
4. ()

Intelligence Required

1. (1) High
2. () Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. (1) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Punch Press Operater

Physical Requirements (Jobs)

- 1. (1) Standing
- 2. (1) Sitting
- 3. () Moving
- 4. () Stooping
- 5. () Walking
- 6. () Climbing
- 7. () Reaching
- 8. (1) Lifting
- 9. () Rapid temperature changes

Jobs Performed by Worker

- 1. () Operate punch press
- 2. ()
- 3. ()
- 4. ()

Intelligence Required

- 1. () High
- 2. (2) Medium
- 3. () Low

Physical Requirements (Personal)

- 1. () Weight
- 2. () Height
- 3. () Strength
- 4. (1) Eyesight
- 5. () Hearing
- 6. () General Health
- 7. () Sex Male
- 8. () Age preferred 21-40

Technical Knowledge

- 1. () Drafting
- 2. () Blueprints
- 3. () Technical Instruments
- 4. () Engineering
- 5. (2) Materials
- 6. (2) Equipment
- 7. (1) Supplies
- 8. () Business

Mental Requirements

- 1. () Read
- 2. () Write
- 3. () Spell
- 4. () Mathematics
- 5. (2) Speak English

Educational Requirements

- 1. () Grade schools
- 2. () High school
- 3. () Vocational
- 4. () Technical
- 5. () College

Turn over in Jobs

- 1. () Rapid
- 2. (1) Medium
- 3. (1) Slow

Employment Conditions

- 1. (2) Permanent
- 2. () Seasonal

Working Conditions

- 1. (8) Hours per day
- 2. (7) Starting time
- 3. (5) Quitting time
- 4. () Wages
 - 1 a. per hour 45¢
 - b. per day
 - c. per week aver. \$24
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

- 1. (2) Happy
- 2. () Genial
- 3. () Calm
- 4. () Staid

Working Conditions

- 1. () Light
- 2. () Ventilation
- 3. () Temperature

Employer-Employee Relationships

- 1. () Close
- 2. () Remote

Safety

- 1. () Wearing apparel
- 2. () Guards on machines
- 3. () Inclosed belts, etc.

Job Punch Press Operator

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (8) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week \$25.
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate Punch Press
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Punch Press Operator

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (8) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$25
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate punch press
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. (1) Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Riveter

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. () Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 40¢
 - b. per day
 - c. per week aver. \$20
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate rivet machine
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Roll Twister

Physical Requirements (Jobs)

1. (2) Standing
2. () Sitting
3. () Moving
4. () Stooping
5. () Walking
6. () Climbing
7. () Reaching
8. (2) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 18-25

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (2) Mathematics
5. (2) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (2) Slow

Working Conditions

1. (9) Hours per day
2. (11) Starting time
3. (8) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 2 c. per week aver. \$25
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. (1) Twist rolls
2. (1) Ice rolls
3. () Cut cookies
4. () Ice cookies

Intelligence Required

1. () High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. () Seasonal

Emotional Stability Required

1. (2) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Roofer

Physical Requirements (Jobs)

1. (4) Standing
2. (4) Sitting
3. (4) Moving
4. (4) Stooping
5. (4) Walking
6. (4) Climbing
7. (4) Reaching
8. (4) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-45

Mental Requirements

1. (3) Read
2. (3) Write
3. (3) Spell
4. (4) Mathematics
5. (4) Speak English

Turn over in Jobs

1. () Rapid
2. (2) Medium
3. (2) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 4 a. per hour 60¢
 - b. per day
 - c. per week aver. \$29
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Lay all type shingles
2. () Tear off old roof
3. () Put on new roof
4. () Tar roofs

Intelligence Required

1. (1) High
2. (3) Medium
3. () Low

Technical Knowledge

1. (1) Drafting
2. (1) Blueprints
3. () Technical Instruments
4. () Engineering
5. (3) Materials
6. (3) Equipment
7. (3) Supplies
8. (1) Business

Educational Requirements

1. (3) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. (4) Seasonal

Emotional Stability Required

1. (3) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Sand Blaster

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Blast castings
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. (1) General Health
7. () Sex Male
8. () Age preferred 21-40

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. () Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Employment Conditions

1. (1) Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$30
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Sander

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 45¢
 - b. per day
 - c. per week aver. \$22
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate belt and disc sander
2. () Sand by hand
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Scrap stock keeper & feeder

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Jobs Performed by Worker

1. () Weigh stock
2. () Feed furnace
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex-Male
8. () Age preferred - 21 -40

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. () Equipment
7. () Supplies
8. () Business

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Employment Conditions

1. (1) Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - 1 b. per day-Aver. \$ 25.00
 - c. per week -\$25.00
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Service Man & Greaser

Physical Requirements (Jobs)

1. Standing
2. Sitting
3. Moving
4. Stooping
5. Walking
6. Climbing
7. Reaching
8. Lifting
9. Rapid temperature changes

Physical Requirements (Personal)

1. Weight
2. Height
3. Strength
4. Eyesight
5. Hearing
6. General Health
7. Sex Male
8. Age preferred 18-35

Mental Requirements

1. Read
2. Write
3. Spell
4. Mathematics
5. Speak English

Turn over in Jobs

1. Rapid
2. Medium
3. Slow

Working Conditions

1. Hours per day
2. Starting time
3. Quitting time
4. Wages
 - a. per hour
 - 1 b. per day
 - c. per week \$24.00 Aver.
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. Change oil in cars
2. Grease Cars
3. Platform work
4.

Intelligence Required

1. High
2. Medium
3. Low

Technical Knowledge

1. Drafting
2. Blueprints
3. Technical Instruments
4. Engineering
5. Materials
6. Equipment
7. Supplies
8. Business

Educational Requirements

1. Grade schools
2. High school
3. Vocational
4. Technical
5. College

Employment Conditions

1. Permanent
2. Seasonal

Emotional Stability Required

1. Happy
2. Genial
3. Calm
4. Staid

Working Conditions

1. Light
2. Ventilation
3. Temperature

Employer-Employee Relationships

1. Close
2. Remote

Safety

1. Wearing apparel
2. Guards on machines
3. Inclosed belts, etc.

Job Sewers

Physical Requirements (Jobs)

1. () Standing
2. (1) Sitting
3. () Moving
4. () Stooping
5. () Walking
6. () Climbing
7. () Reaching
8. () Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Sews cushions
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Female
8. () Age preferred

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Employment Conditions

1. (1) Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$20
 - 1 d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. () Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Shaker

Physical Requirements (Jobs)

- 1. (1) Standing
- 2. () Sitting
- 3. () Moving
- 4. () Stooping
- 5. () Walking
- 6. () Climbing
- 7. () Reaching
- 8. () Lifting
- 9. () Rapid temperature changes

Jobs Performed by Worker

- 1. () Shakes clothes
- 2. ()
- 3. ()
- 4. ()

Intelligence Required

- 1. () High
- 2. (1) Medium
- 3. () Low

Physical Requirements (Personal)

- 1. () Weight
- 2. () Height
- 3. () Strength
- 4. () Eyesight
- 5. () Hearing
- 6. () General Health
- 7. () Sex Female
- 8. () Age preferred 18-30

Technical Knowledge

- 1. () Drafting
- 2. () Blueprints
- 3. () Technical Instruments
- 4. () Engineering
- 5. () Materials
- 6. () Equipment
- 7. () Supplies
- 8. () Business

Mental Requirements

- 1. () Read
- 2. () Write
- 3. () Spell
- 4. () Mathematics
- 5. (1) Speak English

Educational Requirements

- 1. () Grade schools
- 2. () High school
- 3. () Vocational
- 4. () Technical
- 5. () College

Turn over in Jobs

- 1. () Rapid
- 2. (1) Medium
- 3. () Slow

Employment Conditions

- 1. (1) Permanent
- 2. () Seasonal

Working Conditions

- 1. (8) Hours per day
- 2. (8) Starting time
- 3. (5) Quitting time
- 4. () Wages
 - a. per hour
 - b. per day
 - 1 c. per week aver. \$12
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

- 1. (1) Happy
- 2. () Genial
- 3. () Calm
- 4. () Staid

Working Conditions

- 1. () Light
- 2. () Ventilation
- 3. () Temperature

Employer-Employee Relationships

- 1. () Close
- 2. () Remote

Safety

- 1. () Wearing apparel
- 2. () Guards on machines
- 3. () Inclosed belts, etc.

Job Shirt Press Operator

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. () Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Female
8. () Age preferred 18-30

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (9) Hours per day
2. (8) Starting time
3. (6) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week \$15
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Iron shirts
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Shock Sprayer

Physical Requirements (Jobs)

- 1. (1) Standing
- 2. () Sitting
- 3. (1) Moving
- 4. (1) Stooping
- 5. (1) Walking
- 6. () Climbing
- 7. (1) Reaching
- 8. (1) Lifting
- 9. () Rapid temperature changes

Jobs Performed by Worker

- 1. () Spray shocks
- 2. () Maintain paint supply
- 3. () Remove shocks
- 4. ()

Intelligence Required

- 1. () High
- 2. (1) Medium
- 3. () Low

Physical Requirements (Personal)

- 1. () Weight
- 2. () Height
- 3. () Strength
- 4. () Eyesight
- 5. () Hearing
- 6. () General Health
- 7. () Sex Male
- 8. () Age preferred 25-35

Technical Knowledge

- 1. () Drafting
- 2. () Blueprints
- 3. () Technical Instruments
- 4. () Engineering
- 5. () Materials
- 6. (1) Equipment
- 7. () Supplies
- 8. () Business

Mental Requirements

- 1. () Read
- 2. () Write
- 3. () Spell
- 4. () Mathematics
- 5. (1) Speak English

Educational Requirements

- 1. () Grade schools
- 2. () High school
- 3. () Vocational
- 4. () Technical
- 5. () College

Turn over in Jobs

- 1. () Rapid
- 2. () Medium
- 3. (1) Slow

Employment Conditions

- 1. () Permanent
 - 2. () Seasonal
 - 3. (1) Intermittent
- Emotional Stability Required

Working Conditions

- 1. (8) Hours per day
- 2. (8) Starting time
- 3. (5) Quitting time
- 4. () Wages

- 1. (1) Happy
- 2. () Genial
- 3. () Calm
- 4. () Staid

- a. per hour 45¢
- b. per day
- c. per week Aver. \$22.00
- d. piece work
- e. bonus
- f. commission

Working Conditions

- 1. () Light
- 2. () Ventilation
- 3. () Temperature

Employer-Employee Relationships

- 1. () Close
- 2. () Remote

Safety

- 1. () Wearing apparel
- 2. () Guards on machines
- 3. () Inclosed belts, etc.

Job Sign Constructor

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 21-45

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 45¢
 - b. per day
 - c. per week aver. \$22
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Build signs
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. (1) Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Sign Erector and Repairer

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 21-45

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 42¢
 - b. per day
 - c. per week aver. \$20
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Erect signs
2. () Repair signs
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

PRINTING

277

Job Slater

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 21-50

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour \$1
 - b. per day
 - c. per week aver. \$48
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Slate roofs
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Slater

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-50

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. () Hours per day
2. () Starting time
3. () Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Slate roofs
2. () Store fronts
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. (1) Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. (1) Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Smoother

Physical Requirements (Jobs)

1. () Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. () Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 21-45

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 70¢
 - b. per day
 - c. per week aver. \$34
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Finish concrete
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Soft Press Operator

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Jobs Performed by Worker

1. () Operate soft press
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Female
8. () Age preferred 18-30

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Employment Conditions

1. (1) Permanent
2. () Seasonal

Working Conditions

1. (9) Hours per day
2. (8) Starting time
3. (6) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 1 c. per week aver. \$14
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Spray Painter

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Sprays paint
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Employment Conditions

1. (1) Permanent
2. () Seasonal

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 65¢
 - b. per day
 - c. per week aver. \$32
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Stainer (Wood)

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. () Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 40¢
 - b. per day
 - c. per week aver. \$20
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Stain Wood
2. () Apply Filler
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Stamp Press Operator

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. (1) Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 20-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour \$1.50
 - b. per day
 - c. per week
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate stamp press
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Starch Press Operator

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Jobs Performed by Worker

1. () Operate starch press
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Female
8. () Age preferred 18-30

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Employment Conditions

1. (1) Permanent
2. () Seasonal

Working Conditions

1. (9) Hours per day
2. (8) Starting time
3. (6) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week \$14
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Steam Shovel Operator

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 1 c. per week \$42
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate steam shovel
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Steel Cutter and Riveter

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 45¢
 - b. per day
 - c. per week aver. \$22
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Cuts steel and rivets
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. (1) Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Stock Keeper

Physical Requirements (Jobs)

- 1. (2) Standing
- 2. () Sitting
- 3. (2) Moving
- 4. (2) Stooping
- 5. (2) Walking
- 6. (2) Climbing
- 7. (2) Reaching
- 8. (2) Lifting
- 9. () Rapid temperature changes

Physical Requirements (Personal)

- 1. () Weight
- 2. () Height
- 3. () Strength
- 4. () Eyesight
- 5. () Hearing
- 6. () General Health
- 7. () Sex -Male
- 8. () Age preferred 21-45

Mental Requirements

- 1. (2) Read
- 2. (2) Write
- 3. (2) Spell
- 4. (2) Mathematics
- 5. (2) Speak English

Turn over in Jobs

- 1. () Rapid
- 2. () Medium
- 3. (2) Slow

Working Conditions

- 1. (8) Hours per day
- 2. (8) Starting time
- 3. (4) Quitting time
- 4. () Wages
 - a. per hour
 - b. per day
 - 2 c. per week Aver. \$25.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

- 1. () Keep inventory
- 2. () Stock parts
- 3. () Check out parts
- 4. ()

Intelligence Required

- 1. () High
- 2. (2) Medium
- 3. () Low

Technical Knowledge

- 1. () Drafting
- 2. () Blueprints
- 3. () Technical Instruments
- 4. () Engineering
- 5. (2) Materials
- 6. (1) Equipment
- 7. (2) Supplies
- 8. () Business

Educational Requirements

- 1. () Grade schools
- 2. () High school
- 3. () Vocational
- 4. () Technical
- 5. () College

Employment Conditions

- 1. (2) Permanent
- 2. () Seasonal

Emotional Stability Required

- 1. (1) Happy
- 2. () Genial
- 3. () Calm
- 4. () Staid

Working Conditions

- 1. () Light
- 2. () Ventilation
- 3. () Temperature

Employer-Employee Relationships

- 1. () Close
- 2. () Remote

Safety

- 1. () Wearing apparel
- 2. () Guards on machines
- 3. () Inclosed belts, etc.

Job Stock Keeper and Cutter (Upholstery)

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex **Male**
8. () Age preferred **21-40**

Mental Requirements

1. (1) Read
2. (1) Write
3. (1) Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour **50¢**
 - b. per day
 - c. per week **aver. \$24**
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () **Manages goods department**
2. () **Cuts goods**
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. (1) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Stoker

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. (1) Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. (1) Weight
2. () Height
3. (1) Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 60¢
 - b. per day
 - c. per week
 - d. piece work aver. \$28
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Feed hopper
2. () Regulate stoker
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Sway Bar Shaper

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. (1) Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (5) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$30
 - 1 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Heat bars
2. () Form bars on jigs
3. () Hammer bars to shape
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. (1) Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Tag Bender

Physical Requirements (Jobs)

1. () Standing
2. (1) Sitting
3. (1) Moving
4. () Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. () Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Female
8. () Age preferred 18-30

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 30¢
 - b. per day
 - c. per week aver. \$14.50
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate tag bending machine
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Tool Keeper

Physical Requirements (Jobs)

- 1. (2) Standing
- 2. (2) Sitting
- 3. (2) Moving
- 4. (2) Stooping
- 5. (2) Walking
- 6. (2) Climbing
- 7. (2) Reaching
- 8. (2) Lifting
- 9. () Rapid temperature changes

Physical Requirements (Personal)

- 1. () Weight
- 2. () Height
- 3. () Strength
- 4. () Eyesight
- 5. () Hearing
- 6. () General Health
- 7. () Sex Male
- 8. () Age preferred 21-50

Mental Requirements

- 1. (1) Read
- 2. (1) Write
- 3. (1) Spell
- 4. (1) Mathematics
- 5. (2) Speak English

Turn over in Jobs

- 1. () Rapid
- 2. () Medium
- 3. (2) Slow

Working Conditions

- 1. (8) Hours per day
- 2. (7) Starting time
- 3. (4) Quitting time
- 4. () Wages
 - a. per hour
 - b. per day
 - 2 c. per week Aver. \$30.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

- 1. () Sharpen tools
- 2. () Check tools in and out
- 3. () Keep tool room in order
- 4. () Repair belts

Intelligence Required

- 1. () High
- 2. (2) Medium
- 3. () Low

Technical Knowledge

- 1. () Drafting
- 2. () Blueprints
- 3. () Technical Instruments
- 4. () Engineering
- 5. (1) Materials
- 6. (2) Equipment
- 7. (2) Supplies
- 8. () Business

Educational Requirements

- 1. (2) Grade schools
- 2. () High school
- 3. () Vocational
- 4. () Technical
- 5. () College

Employment Conditions

- 1. (2) Permanent
- 2. () Seasonal

Emotional Stability Required

- 1. (1) Happy
- 2. () Genial
- 3. () Calm
- 4. () Staid

Working Conditions

- 1. () Light
- 2. () Ventilation
- 3. () Temperature

Employer-Employee Relationships

- 1. () Close
- 2. () Remote

Safety

- 1. () Wearing apparel
- 2. () Guards on machines
- 3. () Inclosed belts, etc.

Job Trip Hammer Operator

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. (1) Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 25-45

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour \$.60
 - b. per day
 - c. per week
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate trip hammer
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. () Materials
6. () Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal
3. (1) Intermittent

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Truck Driver-(Electric)

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex -Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 1 c. per week \$28.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Pick up buckets and place the
2. () in cleaning room.
3. () Move molds
4. () Move equipment
Move supplies

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Type Setter and Platen Pressman

Physical Requirements (Jobs)

1. (2) Standing
2. (1) Sitting
3. (2) Moving
4. (2) Stooping
5. (1) Walking
6. () Climbing
7. (2) Reaching
8. (2) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male (all)
8. () Age preferred 18-45

Mental Requirements

1. (2) Read
2. (2) Write
3. (2) Spell
4. (2) Mathematics
5. (2) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (2) Slow

Working Conditions

1. (10) Hours per day
2. (7) Starting time
3. (6) Quitting time
4. () Wages
 - a. per hour \$.40
 - b. per day
 - c. per week aver. \$25
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Set type by hand
2. () Operate press (Platen)
3. ()
4. ()

Intelligence Required

1. (1) High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (2) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. (2) High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. () Seasonal

Emotional Stability Required

1. (2) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Upholsterer

Physical Requirements (Jobs)

1. (2) Standing
2. (2) Sitting
3. (2) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (2) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. (1) Read
2. (1) Write
3. () Spell
4. () Mathematics
5. (2) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (2) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week aver. \$30
 - 2 d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Upholster Chairs
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (2) Materials
6. (2) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (2) Permanent
2. () Seasonal

Emotional Stability Required

1. (2) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Veneer Maker

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. (1) Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 70¢
 - b. per day
 - c. per week aver. \$34
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Make veneer
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Washing Machine Operator

Physical Requirements (Jobs)

1. (1) Standing
2. () Sitting
3. (1) Moving
4. (1) Stooping
5. (1) Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. (1) Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-30

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Working Conditions

1. (9) Hours per day
2. (8) Starting time
3. (6) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - c. per week \$22
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Wash clothes with machine
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. () Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Waxer (Machine Operator)

Physical Requirements (Jobs)

1. (2) Standing
2. () Sitting
3. (2) Moving
4. (2) Stooping
5. () Walking
6. () Climbing
7. (2) Reaching
8. (2) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-35

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (2) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. (1) Slow

Working Conditions

1. (7) Hours per day
2. (6) Starting time
3. (2) Quitting time
4. () Wages
 - 2 a. per hour
 - b. per day
 - c. per week Aver. \$17.00
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Operate wax machine
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (2) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. () Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. () Permanent
2. () Seasonal
3. (2) Part time

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Welder (Spot)

Physical Requirements (Jobs)

1. () Standing
2. (1) Sitting
3. (1) Moving
4. () Stooping
5. () Walking
6. () Climbing
7. (1) Reaching
8. (1) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-40

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Turn over in Jobs

1. () Rapid
2. (1) Medium
3. () Slow

Working Conditions

1. (8) Hours per day
2. (7) Starting time
3. (4) Quitting time
4. () Wages
 - 1 a. per hour 60¢
 - b. per day
 - c. per week aver. \$29
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Spot weld
2. ()
3. ()
4. ()

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (1) Permanent
2. () Seasonal

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Upholsterer and Furniture Repairer

Physical Requirements (Jobs)

1. (1) Standing
2. (1) Sitting
3. (1) Moving
4. (1) Stooping
5. () Walking
6. () Climbing
7. () Reaching
8. (1) Lifting
9. () Rapid temperature changes

Jobs Performed by Worker

1. () Repairs furniture
2. () Paints furniture
3. () Packs pillows
4. () Upholstering

Intelligence Required

1. () High
2. (1) Medium
3. () Low

Physical Requirements (Personal)

1. () Weight
2. () Height
3. () Strength
4. () Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 18-22

Technical Knowledge

1. () Drafting
2. () Blueprints
3. () Technical Instruments
4. () Engineering
5. (1) Materials
6. (1) Equipment
7. (1) Supplies
8. () Business

Mental Requirements

1. () Read
2. () Write
3. () Spell
4. () Mathematics
5. (1) Speak English

Educational Requirements

1. () Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Turn over in Jobs

1. () Rapid
2. () Medium
3. (1) Slow

Employment Conditions

1. () Permanent
2. (1) Seasonal

Working Conditions

1. (2) Hours per day
2. (4) Starting time
3. (6) Quitting time
4. () Wages
 - a. per hour
 - b. per day
 - 1 c. per week aver. \$9
 - d. piece work
 - e. bonus
 - f. commission

Emotional Stability Required

1. (1) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

Job Welder (Helper)

Physical Requirements (Jobs)

1. Standing
2. Sitting
3. Moving
4. Stooping
5. Walking
6. Climbing
7. Reaching
8. Lifting
9. Rapid temperature changes

Jobs Performed by Worker

1. Weld tubes
2. Spot welds
3.
4.

Intelligence Required

1. High
2. Medium
3. Low

Physical Requirements (Personal)

1. Weight
2. Height
3. Strength
4. Eyesight
5. Hearing
6. General Health
7. Sex-Male
8. Age preferred 25-35

Technical Knowledge

1. Drafting
2. Blueprints
3. Technical Instruments
4. Engineering
5. Materials
6. Equipment
7. Supplies
8. Business

Mental Requirements

1. Read
2. Write
3. Spell
4. Mathematics
5. Speak English

Educational Requirements

1. Grade schools
2. High school
3. Vocational
4. Technical
5. College

Turn over in Jobs

1. Rapid
2. Medium
3. Slow

Employment Conditions

1. Permanent
2. Seasonal
3. Intermittent

Working Conditions

1. 8 Hours per day
2. 7 Starting time
3. 5 Quitting time
4. Wages

Emotional Stability Required

1. Happy
2. Genial
3. Calm
4. Staid

- a. per hour
 - b. per day
 - c. per week
 - 1 d. piece work
 - e. bonus
 - f. commission
- Aver. \$35.00

Working Conditions

1. Light
2. Ventilation
3. Temperature

Employer-Employee Relationships

1. Close
2. Remote

Safety

1. Wearing apparel
2. Guards on machines
3. Inclosed belts, etc.

Job Yard Mand

Physical Requirements (Jobs)

1. (4) Standing
2. () Sitting
3. (4) Moving
4. (4) Stooping
5. (4) Walking
6. (4) Climbing
7. (4) Reaching
8. (4) Lifting
9. () Rapid temperature changes

Physical Requirements (Personal)

1. () Weight
2. () Height
3. (2) Strength
4. (1) Eyesight
5. () Hearing
6. () General Health
7. () Sex Male
8. () Age preferred 21-50

Mental Requirements

1. (4) Read
2. (4) Write
3. (4) Spell
4. (4) Mathematics
5. (4) Speak English

Turn over in Jobs

1. () Rapid
2. () Medium
3. (4) Slow

Working Conditions

1. (10) Hours per day
2. (7) Starting time
3. (6) Quitting time
4. () Wages
 - 2 a. per hour 45¢
 - b. per day
 - 2 c. per week aver. \$30
 - d. piece work
 - e. bonus
 - f. commission

Jobs Performed by Worker

1. () Unload stock
2. () Compute lumber and sup-
3. () ply bills
4. () Fill orders from office
Operate saws, planer, etc.

Intelligence Required

1. (2) High
2. (1) Medium
3. () Low

Technical Knowledge

1. () Drafting
2. (3) Blueprints
3. () Technical Instruments
4. () Engineering
5. (4) Materials
6. (4) Equipment
7. (4) Supplies
8. (1) Business

Educational Requirements

1. (2) Grade schools
2. () High school
3. () Vocational
4. () Technical
5. () College

Employment Conditions

1. (4) Permanent
2. () Seasonal

Emotional Stability Required

1. (4) Happy
2. () Genial
3. () Calm
4. () Staid

Working Conditions

1. () Light
2. () Ventilation
3. () Temperature

Employer-Employee Relationships

1. () Close
2. () Remote

Safety

1. () Wearing apparel
2. () Guards on machines
3. () Inclosed belts, etc.

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