APPRENTICE TRAINING OFFERED IN THE
DES MOINES, IOWA, AREA

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by
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Approved by Committee:

[Signatures]

Dean of the Graduate Division
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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

For many years there has been a growing trend toward apprenticeship training. In the Des Moines, Iowa, area, high school boys interested in this type of advanced training have not been able to obtain information desired in one book or pamphlet.

I. THE PROBLEM

Statement of the problem. It was the purpose of this study (1) to gather all available information on apprenticeship training approved by the United States Department of Labor and offered in the Des Moines, Iowa, area; (2) to present this information in such a way that students in both ninth grade Community Life Problems classes and in the twelfth grade American Problems courses could use it in the planning of their futures.

Importance of the study. Today, in a world of continuous change, the craftsman of American industry is as nearly secure as anyone can be. Industry may be changing constantly, but as the opportunities for jobs in some occupations increase, the demand for skilled workers persists,
and a person who has acquired all the basic skills of one occupation can more easily and quickly grasp the new or additional skills required by another occupation.

If high school boys are looking ahead by way of apprenticeship, they are looking forward to future years when they will have acquired the skills of craftsmanship for a career in which they will be earning a substantial wage and the security to which they are entitled as American citizens. From the ranks of craftsmen are drawn the key men, the foremen, the supervisors, the job instructors; and, in some instances, the plant managers and other company officials.

II. DEFINITIONS OF TERMS USED

Each apprenticable trade mentioned in this report defines it's own terms. The following term does have a definition that is national in it's usage.

Apprentice. A person at least sixteen years of age who is covered by a written agreement with an employer, or with an association of employers or employees acting as agent for an employer, and approved by the State Apprenticeship Council or other established authority, which apprentice agreement provides for not less than 4,000 hours of reasonable continuous employment for such person, for his participation in an approved schedule of work experience
through employment and for at least 144 hours per year of related supplemental instruction. ¹

**Federal Committee on Apprenticeship.** This group includes an equal number of representatives of management and labor, in addition to a representative of the United States Office of Education. It is the purpose of this committee to extend the application of apprenticeship standards, set up by the 1937 National Apprenticeship Law, to employers and employees in the United States.²

**Iowa Apprenticeship Council.** This group is composed of employers, employees, and a representative of the State Board of Vocational Education. It is the purpose of this group to see that the apprentice standards recommended by the Federal Committee on Apprenticeship are upheld by industry in the state.³

**Joint Apprenticeship Committee.** This group is composed of an equal number of employers and employees within each trade and is given the responsibility of developing


standards to govern the employment and training of all apprentices in the trade.\footnote{Ibid., p. 4.}
CHAPTER II

REVIEW OF THE LITERATURE

I. HISTORY OF APPRENTICESHIP

Apprenticeship has its roots in antiquity and has played an important part in the world's educational drama for 4,000 years. Ancient peoples practiced this form of education as a necessary adjunct to their particular form of industrial activity.

Following the path of history, definite references to apprenticeship are found in the writings of Plato.\(^1\) His discussion on education is primarily concerned with dialectics, but it is evident that the Greeks were familiar with a type of craft education that could reasonably be called 'apprenticeship' during the time of Plato (427-347 B.C.).

Apprenticeship reached a state of development in Egypt during the first century B.C. comparable to apprenticeship in Medieval Europe.

Much thinking on the problem of apprenticeship, historically speaking, began with the handicraft era and the building of many of the cathedrals in Europe in the thirteenth century. During this time trades were organized into

guilds controlled by the masters. These guilds in Medieval Europe were private organizations; therefore, regulations controlling apprenticeships were private ones. Not until 1563 was the first comprehensive public law enacted concerning apprenticeships. The Statute of Labourers and Apprentices specifically pointed out a procedure for all trades, crafts, or mysteries then exercised in England but was never extended to include trades introduced since that time. This public regulation was necessary because apprenticeship was touching the economic lives of many people in England.

Under the Statute of Labourers:

1. The apprentice was bound by a formal, written indenture. His term was fixed at seven years unless he was under seventeen. In this case the term of apprenticeship would not expire until he was twenty-four.

2. Only responsible householders were permitted to take apprentices. In an attempt to see that young apprentices were not misused, agreements were reached only with those masters who owned their own homes and businesses.

3. Only townspeople could enter apprenticeship; country people were excluded.

4. The Statute of Labourers and Apprentices provided for an organized system of poor relief through apprenticeship. This meant that paupers could be apprenticed, thus taking burden of care off the state into the hands of a few private citizens.¹

In Colonial America the system of apprenticeship didn't vary much from that of the English system, but with the introduction of the industrial revolution a decided change took place. Apprenticeships did exist in the nineteenth century but they were a far cry from previous apprenticeships.

Few public laws regarding apprenticeship were actually enforced; therefore, the so-called "apprenticeship" had little protection. The result was that large numbers of youngsters called "apprentices" were used in factories in large numbers and taught only "one or two processes" of a trade. Then when "apprenticeship" was completed they would demand a journeyman's wage and were often discharged and replaced by a new group of apprentices. The Labor market was then flooded with cheap journeymen.

In the latter part of the nineteenth century and early twentieth century, laws were passed regulating apprenticeship in Massachusetts, Illinois, and New York.

With the coming of mass production, problems began to arise that demanded skilled attention. Design, installation, and maintenance of large or complicated machines and equipment could not be entrusted to unskilled help.

In 1911 and 1915 the state of Wisconsin passed apprenticeship laws that outlined in detail the duties of apprentice and employer during the time of contract. These
laws which were passed in the period of the so-called "decline" of apprenticeship, were pointed to by many as a desirable way to revive apprenticeship. ¹

From 1905-1910 a new type of apprentice school came into the industrial picture called the "corporation apprentice school," which was conducted by private industries.

The Federal government entered the apprenticeship picture in March, 1934, under the National Recovery Administration. After the National Recovery Administration was declared unconstitutional, apprenticeship was continued until 1937 under the department of labor with some financial aid from the National Youth Administration.

In 1937 an act was passed authorizing the Secretary of Labor to set up standards to guide industry in employing and training apprentices; to bring management and labor together to work out plans for the training of apprentices; to appoint such national committees as needed; and to promote general acceptance of the standards and procedures agreed upon. To carry out this function, the Bureau of Apprenticeship was established and a committee made up of management, labor and interested Government agencies, known as the Federal Committee on Apprenticeship, was appointed

by the Secretary of Labor to develop appropriate standards and policies.

II. THE APPRENTICE AND THE SCHOOL

Apprentices are turning to the vocational schools for special instruction, and, in general, they know what they want to get out of the school. Many are high school graduates. They have come back to school because they need classroom instruction in subjects related to their trades. Their apprenticeship agreements require at least 144 hours a year of related school instruction.

This school requirement has been agreed upon by the interested employers' association and labor organizations, by the Commissioner of Education and by the Secretary of Labor. It has been written into the standards endorsed by the Federal Committee on Apprenticeship.

Apprenticed to a trade. Modern high-powered machinery demands highly skilled craftsmen as well as semi-skilled or unskilled machine tenders. Modern houses need skilled plumbers, steam fitters, carpenters, and other building tradesmen; the manufacture of automobiles calls for high-grade precision work. There must be skilled craftsmen in many trades—craftsmen who have learned what they can about the trade in school and who have learned the practical end of the trade by working for years in the shop as an
apprentice, side by side with a journeyman or a master craftsman. They must possess more skill than did the workers of earlier times; they must understand the new processes and new materials as well as the technical phases of their trades. The trades today are keenly aware of the need for craftsmen who have learned the trade by way of a long and thorough apprenticeship.1

III. THE TRADE BEHIND THE APPRENTICESHIP

The Employers' Association and the Union. Behind the apprentice are the employers' association and the labor organization for the trade. The employers and the unions jointly decide upon the skills and the knowledge necessary for the trade. They know what it takes to develop such skills and knowledge. They can set a practical test of the apprentice's ability to do the job. They know about how long it generally takes to acquire proficiency. So, together they lay out the plan and set up the standards for training apprentices in their trade.

Where the local employers' association and the local union have set up a joint trade, or trades apprenticeship

committee, they invite a representative of the school system to act as consultant in order to profit from his experience. This representative can keep the school authorities informed of the activities of the local joint trade apprenticeship committee. This committee operates under the state labor department, so that the apprenticeship may conform to the accepted labor standards for the trade. The adult workers in the trade, as well as the apprentice, are concerned with the maintenance of these standards. The local joint trade apprenticeship committee also works with the local educational authorities, in order that the 144 hours per year of related instruction be provided for apprentices.¹

In a number of states, a State Apprenticeship Council has been set up within the labor department, and the movement for establishing such councils by legislation is progressing rapidly. Only State Apprenticeship Councils which are set up in labor departments are recognized under the standards of the Federal Committee on Apprenticeship and under provisions relating to apprentices in certain important Federal labor legislation. The person responsible

for trade and industry vocational education in the State is a member of the State Apprenticeship Council.

The State Apprenticeship Council coordinates the work of local or State joint trade apprenticeship committees, approve all apprenticeship agreements, adjust questions between the employer and the apprentice, and promotes apprenticeship in the State under accepted standards.

The local joint trade apprenticeship committee has a good idea of the number of apprentices who can find full-time employment in the trade after they have completed their apprenticeship. It also knows about how many apprentices can be properly prepared in the different shops in the locality. With these two things in mind, the committee decides on the number of applicants who can be apprenticed at a given time. Of course this may keep out some people who would like to learn the trade; but it results in fair play to those whom the local joint apprenticeship committee does apprentice, to the skilled workers in the trade, and to the trade itself.

When the local joint trade apprenticeship committee has decided upon the number of apprentices, an employer may take the responsibility of training one or more; or the employers' association may jointly take such responsibility. In other words, the young person is apprenticed to the employer or to the employers' association—not just
apprenticed to the trade without employer responsibility. The employer decides, of course, whom he will hire; but the local joint trade apprenticeship committee passes upon the applicant for apprenticeship to see that he has the necessary qualifications.

IV. THE APPRENTICE'S TRAINING ON THE JOB

The Written Agreement. When the young person is apprenticed to the trade, the responsible employer, the employers' association, or the union as the employer's agent, and the apprentice sign the written agreement. This agreement stipulates the period of apprenticeship, the probationary period, the schedule of processes to be learned on the job, the wages to be paid, the hours of work and of school instruction, the right of appeal, and any other special provisions governing the apprenticeship.¹

Term of Apprenticeship. The term of apprenticeship as stipulated in the written agreement varies somewhat according to the needs of each trade. It generally lasts three to five years. For the plumber's apprentices, for example, five years or 9,500 hours of training constitute

the required minimum.¹

**Probation.** Although experience and practical trade knowledge have made the local joint trade apprenticeship committee members keen in sizing up applicants for apprenticeship and in selecting those who will make good in the trade, mistakes can happen. For this reason, most trades give the apprentice a try-out of from three to six months. The probationary period for plumbers' apprentices, for example, is the first five hundred hours, or four months.²

**The Work Schedule on the Job.** To become a competent craftsman the apprentice must learn the basic techniques of the trade and must develop an acceptable degree of skill and proficiency in each of the important branches. The employers and the union in the trade know what it requires to become a skilled craftsman and how long it usually takes to learn the basic operations thoroughly. So they work out a schedule of what the apprentice should learn during the first six months, the second six months, and so on through the apprenticeship, and write this schedule into the apprenticeship agreement.

¹Ibid., p. 5.

This schedule shows the employer what he is to teach the apprentice, and suggests the desirable order. It shows the apprentice what he is expected to learn. It makes possible a periodic checkup on what the apprentice has learned and what and how he is being taught.

The Graduated Wage Scale. From the outset the apprentice receives a wage. The apprentice's wage is figured as a percentage of the skilled worker's wage from the trade and is increased periodically with the apprentice's skill. This graduated wage rate is stated on the written agreement which the apprentice and the employer sign. In this way the apprentice knows what he is to get, the employer what he is to pay.

At the start the apprentice's wage should be at least 25 per cent of the going rate for journeymen in the trade. It is raised as his skill grows and as he can do more work, until it is something like 75 or 80 per cent of the journeyman's wage at the end of the apprenticeship. Throughout the apprenticeship it should average 50 per cent of the journeyman's wage.

The graduated wage scale safeguards the apprentice's future as well as his term of apprenticeship. It sets up standards of wages for the trade that protect the worker after he has completed his apprenticeship and has become a full-fledged journeyman. Where such wage standards are
established in the trade, it is recognized that an unskilled worker without apprentice training cannot easily step in and try to hold a journeyman's job at a lower wage rate.

**Hours and Conditions of Work.** The written agreement stipulates the apprentice's hours and conditions of work. These conform to the accepted standards for the trade. The apprentice is not imposed upon by a longer working day or week than those of regular workers; nor is he singled out for special attention or easier conditions than generally prevail in the trade.

In the written agreement the apprentice's hours of school attendance are generally included in his working day or week, particularly if the work week is more than forty hours.

The written agreement usually contains also the standards of safe practice, proper machine guarding, sanitation, and protection against occupational disease that are accepted by the trade.

**Appeal to a Third Party.** If the employer feels that the apprentice is not proving satisfactory, or if the apprentice feels that he is not getting proper training or rounded experience, or that the employer is not living up to his part of the agreement, either side may place his case before the local joint trade apprenticeship committee. Whenever it is impossible to adjust the difficulty in this
way, the matter is brought before the State Apprenticeship Council. This right of appeal helps to keep both sides to their agreement.

V. WHAT THE APPRENTICE ASKS OF THE SCHOOL

The apprentice asks the school for information that will help him directly at each step in learning his trade. Each trade has its own skills, and the related school instruction for a trade must give the mathematics, the science, the drawing, the materials on safety and hygiene, and the other basic information required by that trade. The school representative can only point such instruction to the needs of a trade--and keep it so pointed--by finding out from the workers and the employers in that trade what those needs are. Since the techniques of a trade are constantly changing, the school representatives must remain in contact with worker and employer members of the trade continuously.

Mathematics and Related Science. The apprentice wants mathematics, physics, and chemistry adapted to his own trade. For example, the apprentice in the building trades needs mathematics and physics and entirely different classwork than the barber or beauty-shop apprentice must have. The plumber's apprentice needs a good working
knowledge of sanitation and of elementary sanitary engineering.  

**Shop Sketching and Blue-Print Reading.** The apprentice in the machine and in the construction trades wants shop sketching and blue-print reading. His class work should deal with the same problems that he meets in the shop.  

**Materials of the Trade.** The school can teach the apprentice about the materials of his trade, their properties and their uses. The machinist's apprentice expects to learn much about metals that he does not find out in the shop; the prospective leather worker about hides and tanning processes; the building trades' apprentice about different kinds of building materials and how they may be used. The skilled craftsmen understands these materials through training and through long experience. Some of his knowledge he can impart on the floor of the shop; but some of it takes more systematic explanation and more careful study than shop time allows. This systematic study may best be directed by the school.

**General Understanding of the Trade.** Around the shop

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2Ibid.
the apprentice picks up general information about his trade --its background and history. But he wants more than he can pick up from the men in the shop, and he expects to get it in school. He also wants to see his trade's position in world production and commerce--where the raw materials come from and where the products are shipped. He is deeply concerned over the outlook for his trade, especially the possibilities of employment at good wages.

The apprentice wants information from the school to supplement the rule-of-thumb instruction he receives in the shop about the dangers of accident and of disease in the trade and how to avoid them. He needs to follow up in the school what he picks up in the shop about the laws under which the industry operates and about the labor laws which concern his trade. He should gain some general understanding of industry and of what is happening in industry, so that he can better meet the changes that are bound to come in his lifetime.¹

Shop Practice. The apprentice may also want from the school certain shop practices to supplement what he learns on the job. In some trades there are processes which

cannot be taught adequately on the job, because a person who is not thoroughly skilled may spoil expensive material, may damage fine tools or complicated equipment, or may injure himself.

The plumbing apprentice who is to learn welding, for example, may be taught in the school shop to handle the torch and to use various types of rods. The plasterer's apprentice may learn to make templates and to run moldings of a type which he could hardly handle on a real job. The school shop may have some special equipment which the employer to whom the boy is apprenticed does not have. Where the apprentice takes such shop practice in school, it must be under the direction of a skilled trade teacher; and it must be followed by ample experience on the job.¹

Understanding for Citizenship. One of the goals of apprenticeship has always been to prepare workers for responsible citizenship in their own communities. Some of this preparation the apprentice acquires in the shop, through a union or through other organizations. Some of the information must come through the school. That information must meet the demands of persons who are working every day,

shoulder, with practical men and who are about ready to vote or are already voters.1

VI. WHAT APPRENTICESHIP BRINGS TO THE SCHOOL

In making these heavy demands upon the school, the apprenticeship program may help the school to solve some of its own problems of occupational training.

Bringing Reality into the Classroom. When the school is able to adapt the class work to meet the practical needs of apprenticeship, it has gone a long way toward meeting the same sort of needs for all pupils in the vocational education classes. Through teaching the apprentice, the school can see more clearly what a young person can learn in school and what he must learn on the job. It can see, also, how the young person learns on the job—and under what conditions—when the learning is supervised by the local joint trade apprenticeship committee representative of management and of labor and is checked by shop practice and by shop standards of production.

The School and the Local Joint Trade Apprenticeship Committee. The school benefits, also, because vocational education representatives serve as consultants to the local joint trade apprenticeship committee. It has the advantage

1Ibid., p. 6.
of the cooperation and the judgment of the two groups--management and labor--who are most thoroughly acquainted with and most vitally interested in the results of the preparation for their trade. Their close and continual observation of the results of the apprentice's progress is a kind of check upon the school work which the educator rarely gets--a check by mature minds in position to judge results by practical standards.¹

Joint Relationships. Through representation on the local joint trade apprenticeship committee--along with management, labor, and the labor department--the school authorities are drawn into active participation in an important community service. This is helpful to the school in meeting its growing task of serving the educational needs of a democracy under increasingly complex conditions of working and of living.

The division of responsibility between the school authorities and the labor departments for the conduct of a modern apprenticeship program may be illustrated by a joint statement issued by the Secretary of Labor of the United States and the Assistant Commissioner of Education for Vocational Education.

There are two distinct groups of responsibilities and functions in the promotion and subsequent operation of plan for apprenticeship training. One group deals with the apprentice as an employed worker—the conditions under which he works, his hours of work, his rate of pay, the length of his learning period, and the ratio of apprentices to journeymen so that overcrowding or the shortage of skilled workers in the trades may be avoided in part. The second group of responsibilities deals with the apprentice as a student—the related technical and supplemental instruction needed to make him a proficient worker and the supervision and coordination of this instruction with his job experience.

It has been amply demonstrated that the responsibilities in connection with the apprentice as an employed worker can best be carried on by the State Department of Labor and that the responsibilities in connection with the apprentice as a student can best be performed by the State Board for Vocational Education. These state agencies in turn look to the United States Department of Labor and to the United States Office of Education for leadership in their respective fields.¹

CHAPTER III

THE APPRENTICESHIP TRAINING PROGRAMS IN DES MOINES, IOWA

The data collected in this chapter were obtained by visiting the United States Apprenticeship Bureau and the unions represented in Des Moines. The apprentice standards in the various trades were on mimeographed sheets and had no definite authors. For that reason, the materials in this chapter are not footnoted.

Each apprenticeship program has been discussed in terms of the following topics:

1. Qualifications
2. Term of Apprenticeship
3. Probationary Period
4. Work Experience
5. Related School Instruction
6. Periodic Examination
7. Apprentice Wages
8. Apprentice Agreement
9. Adjustment of Difficulties
10. Granting of Diploma

These ten topics make it easy to compare the various apprenticeship programs. Also, these are the points that the National Apprenticeship Bureau has specified must be included in an apprenticeship program to be approved by that
bureau. The training programs in this chapter are the only ones in the city of Des Moines so approved.

The key organization in the apprenticeship program is the Joint Committee, which is composed of an equal number of men from the unions and employer groups. The Committee duties are:

1. To establish minimum standards of education and experience for the apprentice.

2. To approve agreements between the employer and the apprentice and to submit these agreements for registration to the Iowa Apprenticeship Council.

3. To hear and adjust all differences pertaining to their apprenticeship between apprentices and the employer when such differences are not covered by a working agreement or when these differences cannot be settled satisfactorily to the Apprentice Supervisor.

4. To determine the apprentice's progress in manipulative skills and technical knowledge; through examination of his records, and by tests or examinations which may, on occasion, be deemed advisable or necessary.

5. To assist any apprentice who has through no fault of his own been laid off, to find re-employment. Apprentices securing re-employment shall be given credit for time already served. To make annual reports covering the work of the committee to the employers, the union, and the Iowa Apprenticeship Council.

6. It shall be the duty of the Committee to recommend to the public school authorities the form, content, and schedule of the courses of instruction to be provided, and upon the request of such authorities to recommend eligible persons as instructors.
The Committee shall also cooperate with the school authorities in coordinating the related classroom instruction with the apprentices basic schedule of work experience. Upon satisfactory completion of the requirements of apprenticeship, as established herein, the committee shall certify the names of graduates to the Registration Agency and recommend that a certificate of completion of apprenticeship be awarded.

The following pages contain the Federally approved apprenticeship training programs offered in the Des Moines, Iowa, area.

I. BRICKLAYING AND MASONRY

Qualifications. Applicants for a bricklaying or stonemasonry apprenticeship, not heretofore connected with the trade, must be between the age of sixteen and twenty-four, and should be high school graduates or the equivalent.

Term of Apprenticeship. The term of apprenticeship shall be not less than four years of reasonably continuous employment for such person (approximately 6000 hours), participation in an approved schedule of work experience through employment and at least 144 hours per year of related and supplemental instruction.

An apprentice who fails to qualify as a journeyman at the end of four years, may be granted an extension of time by the joint Committee on Bricklaying and Masonry Standards to permit him to become a qualified journeyman.
Probationary Period. All apprentices employed in accordance with these standards shall be subject to a try-out or probationary period not to exceed 300 hours of employment. The hours worked during the probationary period shall be included in the term of apprenticeship.

During the probationary period the agreement may be cancelled at the request of either party by notifying the other. After completion of the probationary period the agreement may be cancelled by either party for cause deemed adequate by the joint committee. The registration agency shall be advised of all such cancellations and the reasons therefor.

Work Experience. The apprentice will be taught all branches of the bricklaying and masonry craft and the care and use of tools and equipment used in the craft.

The apprentice shall have the right to appeal to the committee if, in his opinion, he is being given insufficient and unbalanced training. It shall be the duty of the joint committee to make such adjustments as it deems necessary.

Related School Instruction. The committee shall cooperate with the school authorities in the preparation of courses and in other matters relating to apprentices' classroom work.

After provision for classroom instruction has been made in compliance with these standards, each apprentice
shall enroll in and attend classes as scheduled by the joint committee, for a period of not less than 144 hours per year, on his own time.

In case of failure on the part of the apprentice to fulfill his obligations with respect to school attendance, studies, or deportment, the joint committee may suspend or revoke his agreement, and the employer hereby agrees to carry out the instructions of the joint committee in this respect.

**Periodic Examination.** The joint committee may examine the work and school records of apprentices before each period of advancement, giving consideration to school attendance, progressiveness in school, and on the job progress, and make such recommendations as it considers desirable.

**Apprentice Wages.** Apprentices shall be paid at the following percentage of the rate paid to journeymen:

First year ... $1.00 per hour
Second year . . 55 per cent of journeyman's wage
Third year . . 85 per cent of journeyman's wage
Fourth year . . 12½ per cent less per hour than journeyman's rate

**Apprentice Agreement.** The apprentice and his parent or guardian (if he is a minor) shall sign an agreement which shall be signed by the employer and approved by the committee.
Adjustment of Differences. In the event of a complaint or controversy arising between the employer and an apprentice concerning the apprenticeship agreement, either party may appeal to the joint committee for adjustment of the complaint.

Granting a Diploma. Upon successful completion of apprenticeship under these standards, the committee will recommend to the registration agency that the apprentice be issued a certificate of completion of apprenticeship and shall attach their signature thereto.

II. CARPENTRY

Qualifications. Applicants must be between the ages of seventeen and twenty-four, and if possible, have finished the tenth grade in high school or its equivalent.

Term of Apprenticeship. The term of apprenticeship shall be four years of no fewer than 6,240 hours of reasonably continuous employment, plus 576 hours of supplemental school training and the probationary period.

Probationary Period. The probationary period is six months, or the first 720 hours of work is a trial period to determine whether the apprentice is qualified for the trade, and shall be provided for in each indenture. The indenture will provide that either party to the agreement may request annulment of the agreement without the formality of a
hearing. During the probationary period, the apprentice will be given an opportunity to acquire some actual experience in the carpentry trade.

**Work Experience.** The apprentice shall be taught the use of all tools and apparatus commonly used in connection with the carpenters' trade. He shall be given instruction and experience in all common branches of the trade necessary to develop a skilled mechanic versed in the theory and practice of carpentry. He shall also perform such other duties as are commonly related to a carpentry apprenticeship.

**Related School Instruction.** The apprentice shall enroll in and attend classes for not fewer than four hours weekly for a minimum of 576 hours. The courses will include such technical subjects as trade mathematics, trade drawing, blue print reading, and trade science.

**Periodic Examination.** An examination of apprentices shall be given before each period of advancement and at such times as is determined by the local apprentice committee. In these examinations, consideration shall be given to school attendance and daily employment of apprentices.

**Apprentice Wages.** Wages are as follows:

- **First 6 months**: $1.00 per hour plus $1.00 for 4 hours per week of school year
- **Second 6 months**: 50 per cent of the prevailing journeyman's wage rate
Third year . . . . 75 per cent of the prevailing journeyman's wage rate

Fourth year . . . . $10.00 less than the prevailing journeyman's wage rate per day.

Apprentice Agreement. All apprentices working in the carpentry craft in Des Moines shall be indentured. This indenture will be signed by the apprentice and his parents or guardian and employer. Each indenture shall be subject to the approval of this joint committee and the Iowa Apprenticeship Council.

Adjustment of Differences. In case of dissatisfaction between the employer and the apprentice, either has the right and privilege of appealing to the apprentice committee for such action and adjustment of such matters as come within this plan. It is understood that this plan covers only problems relating to the supervision of the apprentices in the carpenter trade. A separate agreement shall be provided for each apprentice.

Granting a Diploma. Upon the successful completion of the apprentice under these standards, the joint committee will request the Iowa Apprenticeship Council to furnish each apprentice with a certificate of completion of apprenticeship.

III. ELECTRICAL CONTRACTING

Qualifications. Candidates for electrical
apprenticeships must be between eighteen and twenty-four years of age. The following information shall be submitted to the local joint apprenticeship committee by each apprenticeship applicant:

1. Birth certificate or military discharge.
2. Transcript of school courses and grades.
3. Record of physical examination.

Applications from persons wishing to become apprentices shall be filed with Union 347; such applications shall then be submitted to the apprenticeship committee for approval.

Term of Apprenticeship. Term of apprenticeship shall be four full years or no fewer than four building seasons of reasonably continuous employment including the probationary period, and supplemental school instruction of 576 hours.

Probationary Period. All apprentices employed under this agreement shall be subject to a probationary period not to exceed six months. During this probationary period annulment may be made by the committee upon the request of either contractor or apprentice, but only after a hearing.

Work Experience. Each apprentice will be given the opportunity to learn the entire trade before the completion of the apprenticeship period.

Related School Instruction. This instruction will include such technical instruction as trade mathematics, trade drawing, trade science, trade business economics, and
such other instruction necessary to develop all-around craftsmanship.

In cases of failure on the part of any apprentice to fulfill his obligations in respect to school attendance or deportment, the joint committee shall have the authority to suspend or revoke his indenture and the employer hereby agrees to carry out the instructions of the apprentice committee in this respect, and in such cases the employee representatives hereby agree to suspend or revoke the registration of any such apprentice.

The apprentice shall be required to present the registration and school attendance card as evidence of faithful performance of duty. This card shall be presented to the joint committee at the end of each six month period so that it may be properly determined whether or not the apprentice is entitled to the next wage schedule.

Periodic Examination. An examination of apprentices shall be given at such times as is determined by the joint committee. In these examinations consideration will be given for school attendance and daily employment of the apprentice.

Apprentice Wages. Apprentice wages shall be as follows:

First 6 months . . . 45 per cent of journeyman's wage
Second 6 months . . . 45 per cent of journeyman's wage
Third 6 months... 50 per cent of journeyman's wage
Fourth 6 months... 60 per cent of journeyman's wage
Fifth 6 months... 75 per cent of journeyman's wage
Sixth 6 months... 80 per cent of journeyman's wage
Seventh 6 months... 85 per cent of journeyman's wage
Eighth 6 months... 90 per cent of journeyman’s wage

Apprenticeship Agreement. The apprentice shall be required to sign an agreement with the local joint committee as evidence that he has read these rules and regulations and agrees to abide by them. This signed agreement, together with one copy of the apprentice's indenture contract shall be deposited with the apprentice committee. Every agreement entered into under those standards shall contain a clause making the standards a part of the agreement with the same effect as if expressly written therein.

Adjustment of Differences. In case of dissatisfaction between contractor and the apprentice, either has the right and privilege of appealing to the joint committee for such action and adjustment of such matters as come within this agreement. It is understood that this agreement covers only problems relating to apprentices in the electrical trade.

Granting of Diploma. Upon the successful completion of the apprenticeship term, under the rules and regulations of the joint committee, there shall be issued a diploma or
certificate indicating the experience and training received by the apprentice.

IV. LATHERS

**Qualifications.** Applicants for lathing apprenticeship, not heretofore connected with the trade, shall be between the ages of eighteen and twenty-six. Each applicant should have a junior high school education or the equivalent.

**Term of Apprenticeship.** The term of apprenticeship shall be 6,000 hours of work experience plus 144 hours per year of related instruction when provided for by the Des Moines Public Schools.

**Probationary Period.** The apprentice shall be subject to a try-out period or probationary period not exceeding 500 hours of employment. During the probationary period, annulment of the apprenticeship agreement will be made by the committee upon request of either party. After completion of the probationary period the agreement may be cancelled by either party for causes deemed adequate by the joint committee.

The hours worked during the probationary period shall be included in the term of apprenticeship.

**Work Experience.** During his apprenticeship the apprentice will receive instruction and experience in all branches of lathing, including the preparation of material
for assembly, as is necessary to develop a practical and skilled craftsman versed in the theory and practices of the trade. He shall also perform other duties in the shop and on the job as are commonly related to a lathing apprenticeship.

Related School Instruction. The joint committee shall cooperate with the school authorities in the preparation of courses and in other matters relating to apprentices classroom work. After provisions for classroom instruction have been made in compliance with these standards, each apprentice shall enroll in and attend classes as scheduled by the committee, for at least 144 hours per year.

In case of a failure on the part of any apprentice to fulfill his obligations with respect to school attendance, studies, or deportment, the joint committee may suspend or revoke his agreement. Required school time shall not be considered as hours of work and shall not be compensated for as such.

Periodic Examination. An examination of apprentices shall be given at such times as is determined by the joint committee. In these examinations consideration shall be given for school attendance and daily employment records of the apprentice.

Apprentice Wages. The minimum wages paid apprentices shall be as follows:
First 6 months . . . $1.00 per hour
Second 6 months . . . 50 per cent of journeyman's wage
Third 6 months . . . 75 per cent of journeyman's wage
Fourth 6 months . . . 12½¢ per hour less than journeyman's wage
Fifth 6 months . . . Same
Sixth 6 months . . . Same

It is provided that, where an apprentice displays exceptional and outstanding aptitude and skill in learning the lathers trade at the completion of two years of his apprenticeship, he may be given an examination by the Committee and advanced to journeyman.

Apprentice Agreement. These standards are made a part of each agreement. The signing of the agreement, therefore, binds the parties concerned to compliance with them.

Adjustment of Differences. In the event of a complaint or controversy arising between the union and the apprentice concerning the apprenticeship agreement, either party may appeal to the joint committee for adjustment of such complaint.

Granting of Diploma. Upon successful completion of apprenticeship under these standards, the committee shall recommend to the registration agency that the apprentice shall be issued a certificate of completion of apprenticeship, and shall attach their signatures thereto.
V. MACHINISTS AND AUTO MECHANICS

Qualifications. Applicants for apprenticeship must be at least sixteen years of age and preferably, should have two years of high school or the equivalent.

Term of Apprenticeship. The term of apprenticeship shall be not less than 8,000 hours (approximately four years) of reasonably continuous employment.

Probationary Period. All apprentices employed in accordance with these standards shall be subject to a try-out or probationary period of the first 1,000 hours (approximately six months) of employment.

During the probationary period the agreement may be cancelled at the request of either party by notifying the other, but due notice shall be given the joint committee and registration agency.

Work Experience. During the apprenticeship, the apprentice shall receive such instruction and experience in all branches of the trade, including the preparation of material, as is necessary to develop a practical and skilled mechanic versed in the theory and practice of the trade. He shall also perform such other duties in the shop and on the job as are commonly related to a machinist or auto mechanic apprenticeship.

Related School Instruction. In compliance with the apprenticeship standards of the Iowa Apprenticeship Council,
each apprentice shall enroll in an approved accredited school in classes for apprentices indentured under these standards, and regularly attend for at least 144 hours per year.

**Periodic Examination.** The committee may examine the work and school records of apprentices before each period of advancement or at such other times as may be determined, giving consideration to school attendance, progress in school, on the job work and such other items as are indicative of the apprentices' development and make such recommendations as it considers desirable.

**Apprentice Wages.** The apprentice is to receive an increase in pay the equivalent of \( \frac{1}{8} \) difference between the apprentice starting rate and the minimum journeyman rate each six months (1,000 hours). The starting rate for apprentices is $1.00 per hour. The apprentice shall participate in any change in wage rate covered in future negotiations between the company and the union.

**Apprentice Agreement.** These standards are made a part of each agreement. The signing of the agreement therefore, binds the parties concerned to compliance with them.

**Adjustment of Differences.** In the event of a complaint or controversy arising between the union and the apprentice concerning the Apprenticeship Agreement, either party may appeal to the joint committee for adjustment of
such complaint.

Grantee of a Diploma. Upon successful completion of the apprenticeship under these standards, the joint committee shall recommend to the Iowa Apprenticeship Council that the apprentice be issued a certificate of completion of apprenticeship and shall attach their signature thereto.

VI. NEW MONARCH MACHINE AND STAMPING COMPANY

TOOL AND DIE MAKER

An apprentice may receive training as a tool and die maker, or maintenance machinist, if employed by the New Monarch Machine and Stamping Company.

Qualifications. Applicants for apprenticeship must be citizens of the United States of America, at least sixteen years of age, and preferably have two years of high school credit, or the equivalent.

Term of Apprenticeship. The term of apprenticeship shall be not less than 8,000 hours (approximately four years) of reasonably continuous employment.

When the apprentice has had previous experience in the trade, the committee may evaluate such experience and recommend a credit toward the completion of the apprenticeship. The credit may be granted at the beginning of the apprenticeship or at a later time when, through ideal work, the student shall have demonstrated the advisability thereof.
Probationary Period. All apprentices employed in accordance with these standards shall be subject to a try-out or probationary period of the first 1,000 hours (approximately six months) of employment.

During the probationary period, the agreement may be cancelled at the request of either party by notifying the other, but due notice shall be given the Joint Apprenticeship Council and Iowa Apprenticeship Council. After completion of the probationary period the agreement may be cancelled by either party for causes deemed adequate by the committee. The Registration Agency shall be advised of all such cancellations and the reasons thereof.

Work Experience. During his apprenticeship, the apprentice shall receive instruction and experience in all branches of the mechanical department, including the preparation of such material for assembly, as is necessary to develop a practical and skilled craftsman, versed in the theory and practice of the trade. He shall also perform such other duties in the shop and on the job as are commonly related to his trade.

Related School Instruction. The committee shall cooperate with the school authorities in the preparation of courses and in other matters relating to apprentice's classroom work.

In compliance with the Apprenticeship Standards of
the Federal Committee on Apprenticeship, each apprentice shall enroll in an approved school in classes for apprentices indentured under these standards, and regularly attend for at least 144 hours per year.

In case of failure, without good cause, on the part of the apprentice to fulfill his obligations as to school attendance, the committee shall notify the Registration Agency of such suspension or revocation and the reason thereof.

**Periodic Examination.** The joint committee shall examine the work and school records of apprentices before each period of advancement and at such other times as may be determined, giving consideration to school attendance, progress in school and on the job work, and such other items as are indicative of the apprentice's development, and should make such recommendations as it considers desirable.

**Apprentice Wages.** The apprentice wage scale negotiated, as a part of the bargaining agreements in force and effect, present and future, shall govern the wage scale to be paid under these standards of apprenticeship. Apprentices who receive credit for previous experience shall be paid upon entrance the wage rate for the period to which such credit advances them. When credit is granted at some time subsequent to the start of the apprenticeship, the wage rate shall be advanced to the wage rate of the period in
which such credit places the apprentice.

**Apprenticeship Agreement.** The apprentice and his parent and/or guardian (when he is a minor) shall sign an agreement which shall also be signed by the employer and approved by the committee.

Every apprenticeship agreement entered into under these standards shall contain a provision making the terms and the conditions of the standards a part of the apprenticeship agreement. For this reason every apprentice, parent, or guardian (if the apprentice is a minor), and the employer entering into an agreement shall be given an opportunity to read the standards before the apprenticeship agreement is signed.

**Adjustment of Differences.** Apprentices are encouraged to take up individual suggestions, recommendations, or minor grievances with the Supervisor of Apprenticeship. However, any apprentice may appear before the committee on any matter relating to his apprenticeship. If the committee is unable to adjust the matter to the satisfaction of the apprentice, he may ask the Registration Agency to consider the case.

**Granting a Diploma.** Upon satisfactory completion of the requirements of apprenticeship, as established herein, the committee shall certify the names of graduates to the Registration Agency and recommend that a certificate of
apprenticeship be awarded.

VII. PAINTING, PAPERHANGING, AND DECORATING TRADES

Qualifications. An apprentice must be at least sixteen years of age, and no older than twenty-one, except by special dispensation of the joint committee.

Term of Apprenticeship. The term of apprenticeship shall be three full years of no fewer than three building seasons of reasonably continuous employment, including the probationary period, and supplementary school instruction of 144 hours per year.

Probationary Period. All apprentices employed under this agreement shall be subject to a try-out or probationary period of not to exceed ninety days. During this probationary period annulment may be made by the joint committee upon the request of either party.

Work Experience. The parties to this agreement shall be required to provide each apprentice with the opportunity to learn the entire trade before completion of the apprenticeship period.

Related School Instruction. The school instruction shall include trade mathematics, trade drawing, trade science, trade business, economics, and all other subject matter as may be necessary to develop all around craftsmanship.
Periodic Examination. An examination of apprentices shall be given before each period of advancement and at such times as is determined by the joint committee. In these examinations, consideration shall be given for school attendance and daily employment of the apprentice.

Apprentice Wages. Apprentice shall be employed at the following percentages of the journeyman's wages:

First year . . . . . . 40 per cent
Second year . . . . . 50 per cent
Third year . . . . . 60 per cent

Apprentice Agreement. Every apprentice regularly enrolled under these agreements shall be required to sign his name in the proper places to this agreement as evidence that he has read these rules and regulations, and agrees to abide by the same. This signed agreement shall be deposited with the joint apprentice committee, together with one copy of the apprentice indenture contract.

Adjustment of Differences. In case of dissatisfaction between contractor and the apprentice, either has the right and privilege of appealing to the Apprentice Committee for such action and adjustment of such matters as come within the agreement. It is understood that this agreement covers only problems relating to apprentices in the painting trade.

Granting of Diploma. Upon successful completion of
the apprenticeship terms, under these rules and regulations of the apprentice committee, there shall be issued a diploma or certificate indicating the experience and training received by the apprentice.

VIII. PLASTERING AND CEMENT FINISHING

**Qualifications.** Applicants for plastering or cement finishing apprenticeship not heretofore connected with the trade shall be between the ages of eighteen and twenty-five, and should have a junior high school education or equivalent.

**Term of Apprenticeship.** The term of apprenticeship shall be 6,240 hours of work experience and 144 hours per year of classroom instruction on subjects related to the trade.

**Probationary Period.** Apprentices shall be subject to a try-out or probationary period not exceeding 500 hours of employment. During the probationary period, annulment of the apprenticeship agreement will be made by the joint committee upon request of either party. After completion of the probationary period the agreement may be cancelled by either party for cause deemed adequate by the joint committee. Due notice shall be given the registration agency of all cancellations and the reason therefore. The term of apprenticeship includes the 500 hour probationary period.

**Work Experience.** During his apprenticeship, the
apprentice shall receive instruction and experience in all of the branches of the plastering or cement finishers trade, including the preparation of material for assembly, as is necessary to develop a practical and skilled craftsman, versed in the theory and practices of the trade. He shall also perform such other duties in the shop and on the job as are commonly related to a plastering or cement finishers apprenticeship.

The apprentice shall have the right to appeal to the committee if, in his opinion, he is being given insufficient or improper training. It shall be the duty of the joint committee to make such adjustments as it deems necessary.

Related School Instruction. The joint committee shall cooperate with the school authorities in the preparation of courses and in other matters relating to apprentices' classroom work. When provision for classroom instruction has been made in compliance with these standards, each apprentice shall enroll and attend classes as scheduled by the committee, for at least 144 hours per year.

Required school time shall not be considered hours of work, and shall not be compensated for as such, unless classes are conducted during regular working hours, in which case the apprentice shall be compensated for such attendance at going rates of pay.

Periodic Examination. An examination of apprentices
shall be given at such times as are determined by the joint committee. In these examinations consideration shall be given for school attendance and daily employment records of the apprentice.

**Apprentice Wages.** The minimum wages paid apprentices shall be as follows:

- **First 6 months** . . . $1.00 per hour
- **Second 6 months** . . . 50 per cent of journeyman's wage
- **Second year** . . . . 60 per cent of journeyman's wage
- **Third year** . . . . 75 per cent of journeyman's wage
- **Fourth year** . . . . 12½ per hour less than journeyman's wage

**Apprentice Agreement.** Every apprenticeship agreement entered into under these standards shall contain a clause making the standards a part of the agreement with the same effect as if expressly written therein. Therefore, every applicant (and his parent or guardian, if he is a minor) shall be given an opportunity to read these standards before he signs the apprenticeship agreement.

**Adjustment of Differences.** In the event of a complaint or controversy arising between the employer and the apprentice concerning the apprenticeship agreement, either party may appeal to the apprenticeship committee for adjustment of such complaint.

**Granting a Diploma.** Upon successful completion of
apprenticeship under these standards, the joint committee shall recommend to the registration agency that the apprentice be issued a certificate of completion of apprenticeship and shall attach their signature thereto.

IX. PLUMBING

Qualifications. Applicants for a plumbing apprenticeship, not heretofore connected with the trade, must be between the ages of sixteen and twenty-one. All applicants shall be high school graduates or the equivalent; qualifications below these minimums shall be determined by the committee.

Term of Apprenticeship. The term of apprenticeship shall not be less than five years, with 8,780 hours of work on the job, exclusive of the required 144 hours per year of related school instruction, as the minimum for a plumber's apprentice.

Probationary Period. All apprentices employed in accordance with these standards shall be subject to a try-out or probationary period not to exceed four months. During this probationary period, annulment of the apprentice agreement will be made by the joint committee upon request of either party, without the formality of a hearing.

Work Experience. During this apprenticeship the plumber's apprentice shall receive instruction and experience
in all branches of plumbing, including the preparation of material for installation as is necessary to develop a practical and skilled mechanic versed in the theory and practice of plumbing. He shall also perform such other duties in the shop and on the job as are commonly related to a plumbing apprenticeship. The apprentice shall have a right to appeal to the committee if, in his opinion, he is being given insufficient or improper training. It shall be the duty of the joint committee to hold a hearing and make such adjustments as it deems necessary.

Related School Instruction. Each apprentice shall enroll in and attend classes not less than 144 hours per year on his own time. The joint committee shall cooperate, upon request, with education authorities in working out courses of study for the apprentices. In cases of failure on the part of the apprentice to fulfill his obligations in respect to school attendance or deportment, the committee shall have the authority to suspend or revoke his agreement, and the employer hereby agrees to carry out the instructions of the joint committee in this respect. The apprentice and his parents or guardian hereby agree to abide by any such determination of the committee.

Periodic Examination. An examination of apprentices shall be given before each period of advancement and at all times as is determined by the committee. In these
examinations consideration shall be given to the school attendance and daily employment record of the apprentice.

*Apprentice Wages.* Apprentices shall be employed at following percentages of the prevailing rate paid journey-men; these are minimum rates. Mutual agreement between the employer and apprentices covering rates higher than these specified are permissible:

- First 6 months . . . . . . . . 25 per cent
- Second 6 months . . . . . . . . 30 per cent
- Third 6 months . . . . . . . . 35 per cent
- Fourth 6 months . . . . . . . . 40 per cent
- Fifth 6 months . . . . . . . . 45 per cent
- Sixth 6 months . . . . . . . . 50 per cent
- Seventh 6 months . . . . . . . . 60 per cent
- Eighth 6 months . . . . . . . . 65 per cent
- Ninth 6 months . . . . . . . . 70 per cent
- Tenth 6 months . . . . . . . . 80 per cent

*Apprentice Agreement.* The apprentice and the parent, or guardian (if the apprentice is under twenty-one years of age) shall be required to sign an agreement which shall be signed by the employer and approved by the committee. Every application for apprentice agreement entered under these standards shall be registered with the Iowa Apprenticeship Council.

*Adjustment of Differences.* In case of dissatisfaction
between the employer and the apprentice, either has the right and privilege of appealing to the joint committee for such action and adjustment of such matters as come within its jurisdiction. It is understood that these standards cover only problems relating to the apprentices in the plumbing trade. A separate agreement shall be provided for each apprentice. The terms and conditions of these standards shall be made a part of said agreement under the heading "special provisions."

Granting a Diploma. Upon the successful completion of his apprenticeship under these standards, the joint committee shall request the State Apprenticeship Board to furnish each apprentice with a Certificate of Completion of Apprenticeship.

X. METAL WORKERS

Qualifications. Applicants for a sheet metal apprenticeship, not heretofore connected with the trade, must be between the ages of sixteen and twenty-one, and have a high school education or the equivalent. Any other qualifications above these minimums shall be determined by the Des Moines Sheet Metal Apprenticeship Committee.

Term of Apprenticeship. The term of apprenticeship shall be not less than four years. To enable the apprentice to qualify at the end of his apprenticeship as a skilled
mechanic in the sheet metal trade the apprentice shall work and receive instruction under the supervision of a journeyman. Eight thousand hours of work and related instruction is the minimum requirement for the development of a sheet metal apprentice.

Probationary Period. All apprentices employed in accordance with these standards shall be subject to a try-out or probationary period not to exceed 500 hours. During this probationary period, annulment of the apprentice agreement will be made by the Des Moines Sheet Metal Apprenticeship Committee upon request of either party without the formality of a hearing, but due notice of such action shall be given to the State Apprenticeship Council.

Work Experience. During his apprenticeship, the sheet metal apprentice shall receive such instruction and experience in all branches of the sheet metal trade, including the preparation of material for installation, as is necessary to develop a practical and skilled mechanic versed in the theory and practice of sheet metal working.

He shall also perform such other duties in the shop and on the job as are commonly related to sheet metal apprenticeship. The apprentice shall have the right to appeal to the Des Moines Sheet Metal Apprenticeship Committee if, in his opinion, he is being given insufficient or improper experience.
Related School Instruction. Each apprentice shall enroll in and attend not fewer than four hours weekly for a minimum of 144 hours per year.

The local apprenticeship committee will cooperate with educational authorities in working out courses of study for the apprentices, and suggest such changes and improvements as are necessary. The joint committee recommends that the course include such technical subjects as trade mathematics, rough and freehand drawing, blueprint reading, trade science, State and municipal codes, and such other subjects applicable to the trade as may be necessary. The joint committee will cooperate at the request of the superintendent of schools in working out a course for sheet metal apprentices.

Periodic Examination. An examination of apprentices shall be given before each period of advancement and at such times as is determined by the Des Moines Sheet Metal Apprenticeship Committee. In these examinations, consideration shall be given to the school attendance and daily employment record of the apprentice.

Apprentice Wages. Apprentices shall be employed at the following percentage of the prevailing journeyman's annual wages:

First 6 months . . . . . 35 per cent
Second 6 months . . . . 40 per cent
Third 6 months . . . . . 45 per cent
Fourth 6 months . . . . . 50 per cent
Fifth 6 months . . . . . 55 per cent
Sixth 6 months . . . . . 60 per cent
Seventh 6 months . . . . . 70 per cent
Eighth 6 months . . . . . 80 per cent

Apprentice Agreement. The apprentice and his parent
or guardian shall be required to sign an agreement which
shall be signed also by the employer and approved by the
Des Moines Sheet Metal Apprenticeship Committee. Every ap-
prentice agreement entered into under these standards shall
contain the provisions shown in these standards.

Adjustment of Differences. In case of dissatisfac-
tion between the employer and the apprentice, either party
has the right and privilege of appealing to the Des Moines
Sheet Metal Apprenticeship Committee for such action and
adjustments of such matters as come within these standards.
It is understood that the standards of such cover only prob-
lems related to the apprentices in the Sheet Metal trade.
The terms and conditions of the standards shall be made a
part of the apprentice agreement under the heading of
"special provisions."

Granting a Diploma. Upon the successful completion
of the apprenticeship, the State Apprenticeship Council
agrees to furnish the apprentice with a certificate of
completion of apprenticeship. No apprentice will be granted this certificate until he has passed examination requirements of the sheet metal apprenticeship committee.

XI. SOLAR AIRCRAFT COMPANY

TOOL AND DIE MAKER

An apprentice in Solar Aircraft Company will receive training as a tool and die maker.

Qualifications. Applicants for indentured apprenticeship must be between the ages of eighteen and twenty-six years.

Term of Apprenticeship. The term of apprenticeship shall not be less than 8,000 hours of reasonably continuous work.

Probationary Period. All apprentices employed in accordance with these standards shall be subject to a try-out or probationary period of the first 1,000 hours of employment. During the probationary period the agreement may be cancelled at the request of either party by notifying the other, but due notice shall be given to the committee and registration agency.

Work Experience. The apprentice shall be given such instruction and experience in the tool and die makers' trade, as carried on by the employer, which will enable him to qualify as a competent journeyman at the completion of his
apprenticeship.

**Related School Instruction.** Each apprentice agrees to enroll in approved classes for apprentice indentured under these standards and attend regularly for at least 144 hours each year. Apprentices agree to attend classes in related instruction on their own time.

**Periodic Examination.** The committee shall examine the work and related instruction records of apprentices before each period advancement or at such times as may be determined, giving consideration to on-the-job and related instruction progress and other items as are indicative of the apprentices development and make such recommendations as it considers desirable.

**Apprentice Wages.** The apprentice shall receive not less than the following progressively increased schedule of wages:

First 6 months . . . 55 per cent of the journeyman rate
Second 6 months . . 60 per cent of the journeyman rate
Third 6 months . . . 65 per cent of the journeyman rate
Fourth 6 months . . 70 per cent of the journeyman rate
Fifth 6 months . . . 80 per cent of the journeyman rate
Sixth 6 months . . . 85 per cent of the journeyman rate
Seventh 6 months . . 90 per cent of the journeyman rate

Eighth 6 months . . 95 per cent of the journeyman rate

Apprenticeship Agreement. The apprentice and his parent or guardian (when he is a minor) shall sign an agreement which shall also be signed by the employer and approved by the committee. Each agreement entered into under these standards shall contain a provision making the terms and conditions of the standards a part thereof. For this reason the apprentice, his parent or guardian, and the employer shall be provided with a copy thereof.

Adjustment of Differences. The joint apprenticeship committee will hear and adjust all differences between apprentices and the employer when such differences cannot be settled satisfactorily by the apprentice supervisor.

Granting of Diploma. Upon successful completion of the apprenticeship under these standards, the committee shall arrange for the issuance of a certificate of completion of apprenticeship.

XII. TYPOGRAPHICAL TRADE

Qualifications. Apprentices shall be no less than sixteen years of age at the time of beginning their apprenticeship. All persons entering the trade shall first be approved by the Joint Apprenticeship Committee. They must
pass a technical examination given by the committee and a physical examination must also be made by a qualified medical examiner, approved by the committee, after one year probationary period. The medical and other examinations must show fitness and adaptability to the trade. The results of the physical examination shall appear on the medical certificate, printed on the reverse side of the application for apprenticeship.

**Term of Apprenticeship.** The term of apprenticeship shall not be less than six years of reasonably continuous employment of such person, for his participation in an approved schedule of work experience through employment and for completing the Typographical Union course of lessons in printing.

Under special arrangement between the committee, the employer, and the union, a period of time not to exceed one year may be deducted from the six year apprenticeship term.

**Probationary Period.** All apprentices employed in accordance with these standards shall be subject to a try-out or probationary period. At the end of the first year, if the apprentice proves competent, the committee shall regard him as a regular qualified apprentice under these standards. The hours worked during the apprenticeship period shall be included with the probationary. During the probationary period the apprenticeship may be cancelled by
either party for cause deemed adequate by the committee. The registration agency shall be advised of all such cancellations.

Work Experience. The apprentice is to be taught all the branches of the trade, and the care and use of equipment used in the trade, including the preparation of such material as is necessary to develop a practical and skilled journeyman, versed in the theory and practice of the trade.

The apprentice shall have the right to appeal to the committee if in his opinion he is being given insufficient or improper training. It shall be the duty of the committee to make such adjustments as it deems necessary.

Related School Instruction. The International Typographical Union Lessons in Printing provided for newspaper and job apprentice members consists in each instance of six units of lessons. The newspaper course consists of sixty lessons.

Units I, II, V and VI of each course are identical. Units III and IV of each course treat entirely different subjects. The titles of the units and lessons in each are:

Unit I. "Elements of Composition" . . The Practice of Printing

Unit II. "Display Composition" . . Simple Display

Unit III. "Job Composition" . . Commercial Display
Periodic Examination. The committee shall examine the work and records of apprentices before each period of advancement, or at such other times as may be determined, giving consideration to progress in the course of lessons and on the job and such other matters as are indicative of the apprentice's development.

Apprentice Wages. The compensation for apprentices shall be in accordance with the provisions of the bargaining contract existing between the Union and the employer and shall be set forth in each individual apprenticeship agreement.

Apprenticeship Agreement. The apprentice and his parent or guardian (if he is a minor) shall sign an agreement which shall also be signed by the employer and be approved by the committee.

Each agreement entered into under these standards shall contain provision making the terms and conditions of the standards a part thereof. For this reason the
apprentice, his parent or guardian, and the employer shall be given an opportunity to read the standards.

Adjusting Differences. In the event of a complaint or controversy arising between the employer and an apprentice concerning the apprenticeship agreement, either party may appeal to the apprenticeship committee for adjustment of such complaint. However, the apprenticeship committee may adjust only such complaints as go to the training program; other possible complaints shall be turned over and determined by the bargaining contract between the Union and employer.

Granting a Diploma. Upon successful completion of apprenticeship under these standards, the joint committee shall recommend to the Iowa Apprenticeship Council that the apprentice be issued a certificate of completion of apprenticeship and shall attach their signature thereto.
CHAPTER IV

SUMMARY

The boy planning to prepare for a career as a craftsman in a skilled trade should be certain that the training he receives will be adequate in every respect, remembering that to qualify for apprenticeship in any of the skilled trades he must have ability to work with his hands, as well as his head. Frequently an applicant is subjected to a battery of tests, verbal and written. To be successful, he must have perseverance, ambition, and initiative. High school graduates are preferred. The age of apprentices when they start their training ranges from sixteen to twenty-four years. A boy having the above traits interested in apprentice training, should take the following steps:

1. Before graduation from high school, consult your counselor or boy's advisor and go over the results of any tests you might have taken, looking for aptitudes that would indicate the type of training in which you might succeed.

2. Survey all trades that could be possible choices for apprenticeship training, using films, visiting places where these trades are carried on, talking to men who have finished apprentice training programs in these various trades, and observing the work carried on in them.
3. When you have decided on the trade, find out where the best opportunities are for apprenticeship training.

4. To get this information, go to the nearest office of the State Employment Service and ask the advice of the interviewer there.

There are several things to check when considering an apprentice program. Listed below are ten major questions to consider when applying for employment as an apprentice.

1. First of all, is the program in written form so the boy can read it and know in advance what the training includes?

2. Is the schedule of work processes to be learned on the job itemized in the written program?

3. Are apprentices paid on a progressively increasing schedule of wages so their earnings keep pace with the skills they acquire?

4. Are apprentices given at least four hours a week (approximately 144 hours a year) of classroom instruction in subjects related to the work on the job?

5. Is there a written apprenticeship agreement which an apprentice signs outlining the terms and conditions of the apprentices' employment and training?

6. Is an apprentice awarded a "Certificate of Completion of Apprenticeship" when he finishes the training?

7. Does the program provide for supervision of apprentices, and a record system covering the work and training of apprentices?

8. Is there a ratio provision or some other means
of determining the number of apprentices to be trained in proportion to the number of journeymen employed? Such a provision indicates that the employer is training only the number of apprentices who will be needed to meet the skilled worker requirements, and is thus looking out for the employment security of new workers.

9. If the workers in the plant are organized, is the program approved by both the management and the labor organization? If both have approved it, there will probably be a joint apprentice committee, but in any event, when management and the union are in agreement on the program, it is certain the workers, as well as the management will cooperate fully in the training.

10. Is the program registered with a State or Federal apprenticeship agency?¹

Any program which measures up to at least eight of these ten points should provide the all-around training needed for craftmanship in any desired trade.

This report has been prepared especially for the junior and senior high school students of Des Moines who are planning for future occupations in skilled trades. Assisting these students with the planning of their future can be better achieved if each counselor and boy's advisor has in his possession a copy of this report.

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