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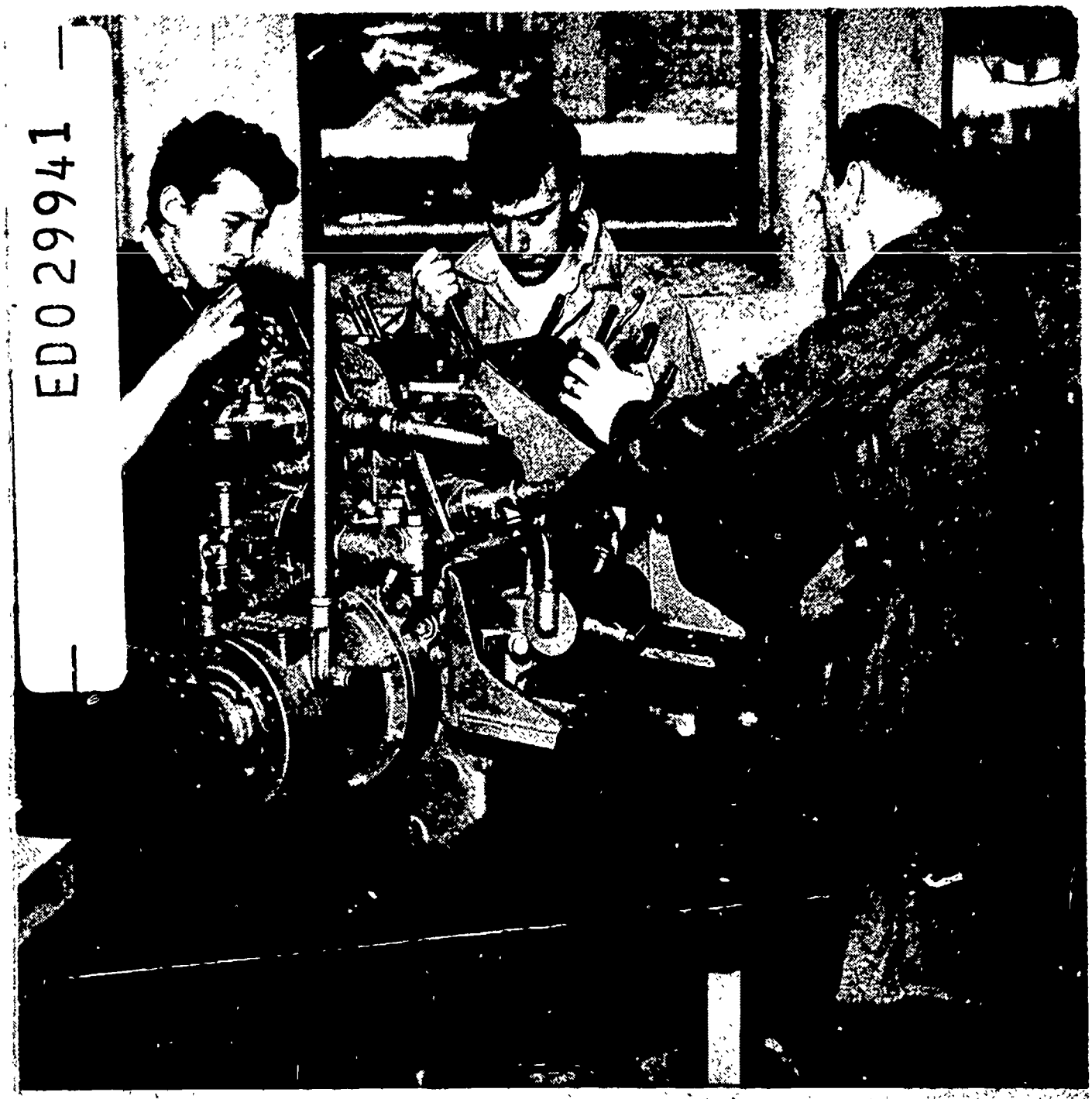
The purpose of this publication is to present Norway's industrial status, industrial manpower profile, and philosophy of vocational training. The relation between general and vocational education is discussed and Norway's educational system is outlined. Occupational areas receiving detailed discussion include (1) Agriculture, (2) Maritime Occupations, (3) Industry and Handicraft, (4) Advanced Training Within Handicrafts, Industry, Commerce and Clerical Work, (5) School Training in Commerce and Clerical Work, (6) Hotels and Restaurants, (7) Social Services, (8) Domestic Work, (9) Public Utilities Services, and (10) Rehabilitation of the Handicapped. The publication concludes with a discussion of the economic position of vocational school pupils and the role of vocational training in society. (CH)



VOCATIONAL TRAINING *in* NORWAY

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

VOCATIONAL TRAINING *in* NORWAY.

A Survey by
Gunnar Mortensen and Sven Persson

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Preface

The Norwegian Joint Committee on International Social Policy, a tripartite body of Government, Labour and Management representatives, presents the second edition of Vocational Training in Norway.

It is hoped that this survey and the other publications of the committee will to some extent satisfy the desire for information on Norwegian social and labour matters, in a form convenient to organisations concerned with international relations and social affairs, as well as to individual students of such matters.

Oslo, February 1964

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THE STRUCTURE OF NORWEGIAN INDUSTRIAL LIFE

There has been a common belief abroad that Norway is a nation of seamen and fishermen. The census of 1960, however, reveals that about 36 per cent of her wage-earners are engaged in industry, in building construction, and in other manual occupations, while a mere 5 per cent rely on fishing, sealing, and whaling for a livelihood, with about the same percentage engaged in sea transport. Agriculture and forestry absorb about 15 per cent of the working population, and commerce accounts for around 20 per cent. An expanding group is employed in various public and private services. Salaried employees are included in the above figures, and constitute at least 20 per cent of the working population.

During the twentieth century the structure of Norwegian industrial life has developed along the same lines as that in other European countries. Industrialization has made rapid advances, but the majority of the Norwegian industrial and handicraft enterprises are still small. More than two-thirds of them employ fewer than 5 workers, and in handicraft one- and two-man concerns are extremely common. Only about 5 per cent of the firms employ more than 50 workers, and only just over 2 per cent have over 1,000 on the payroll. Nevertheless

these 5 per cent with over 50 workers employ more than half of the total number of industrial employees, and yield over 60 per cent of the national production.

Considerable rationalization has been applied in agriculture and fishery, so that these industries have increased their production substantially in spite of the fact that the number engaged in these branches has decreased. This is especially true of agriculture, which has lost much of its man-power to the towns.

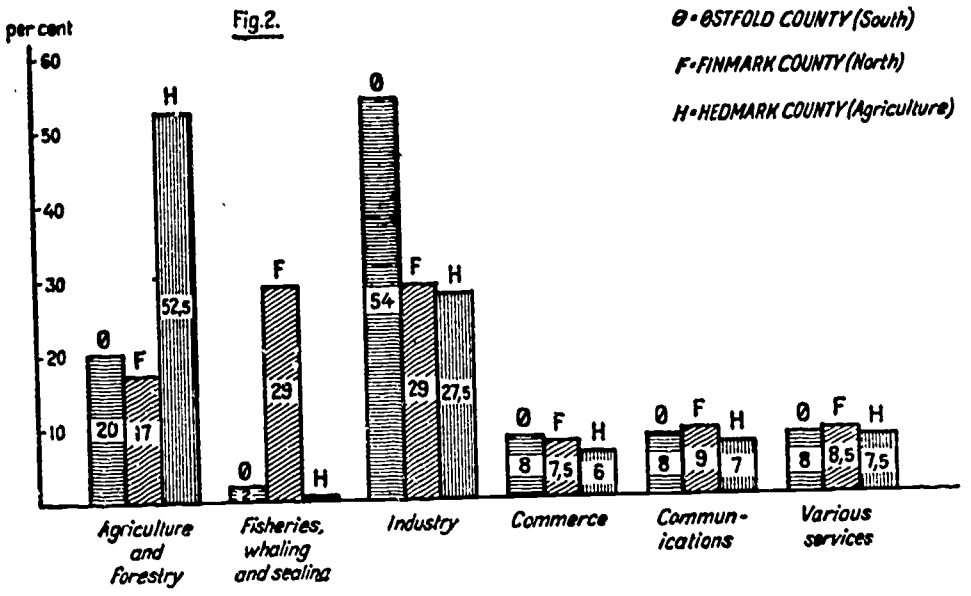
The Norwegian population is thus primarily engaged in industry and agriculture, since more than half of its workers are so employed, and are responsible for half of the national income. But sea-transport, sealing, whaling and fishing are still important industries of special significance in foreign trade, and they help to make possible the relatively high standard of living that has gradually been attained. In large areas, especially in the northernmost counties, industry and agriculture are little developed, and sea-transport, sealing and whaling and fishing here account for a much larger part of the working population than elsewhere in the country. In recent years great efforts have been made to alter this pattern of occupation in the northernmost districts, and a number of large industrial enterprises have been launched.

In a country like Norway, where the density of population varies so greatly from about 50 persons per square kilometre in the most densely populated counties to about one per square kilometre in the most thinly populated, it is only natural that the structure of occupation varies from one part of the country to the other. Although, as mentioned, much has been done to establish new industries in the northernmost counties, the geographical and climatic conditions are such that it must be assumed that the economic structure will continue to differ from that of the rest of the country to the south. The average

 employment figures thus do not give a true picture of the

economic life of the people in any single area. An impression of the variation is given in the diagram, which shows the distribution of occupations on the east side of Oslofjord, Hedmark county, a typical timber and agriculture county, and Finnmark, the northernmost county of Norway. The figures here are from 1950, but no significant changes have taken place in the meantime.

Fig.2.



A foreigner journeying from the southernmost extremity of Norway to the most northenly point would be struck by the fact that what he thought to be "typically Norwegian" proved to be only typical for certain parts of the country. The changes from the coastal districts to the inland areas, and from southern to northern Norway are more marked than one usually notices even when crossing national frontiers. This applies to a notable degree in industrial life. Perhaps we may say that the wide variations caused by climate, settlement, and traditions is the most "typically Norwegian" phenomenon of the economic life of this country.

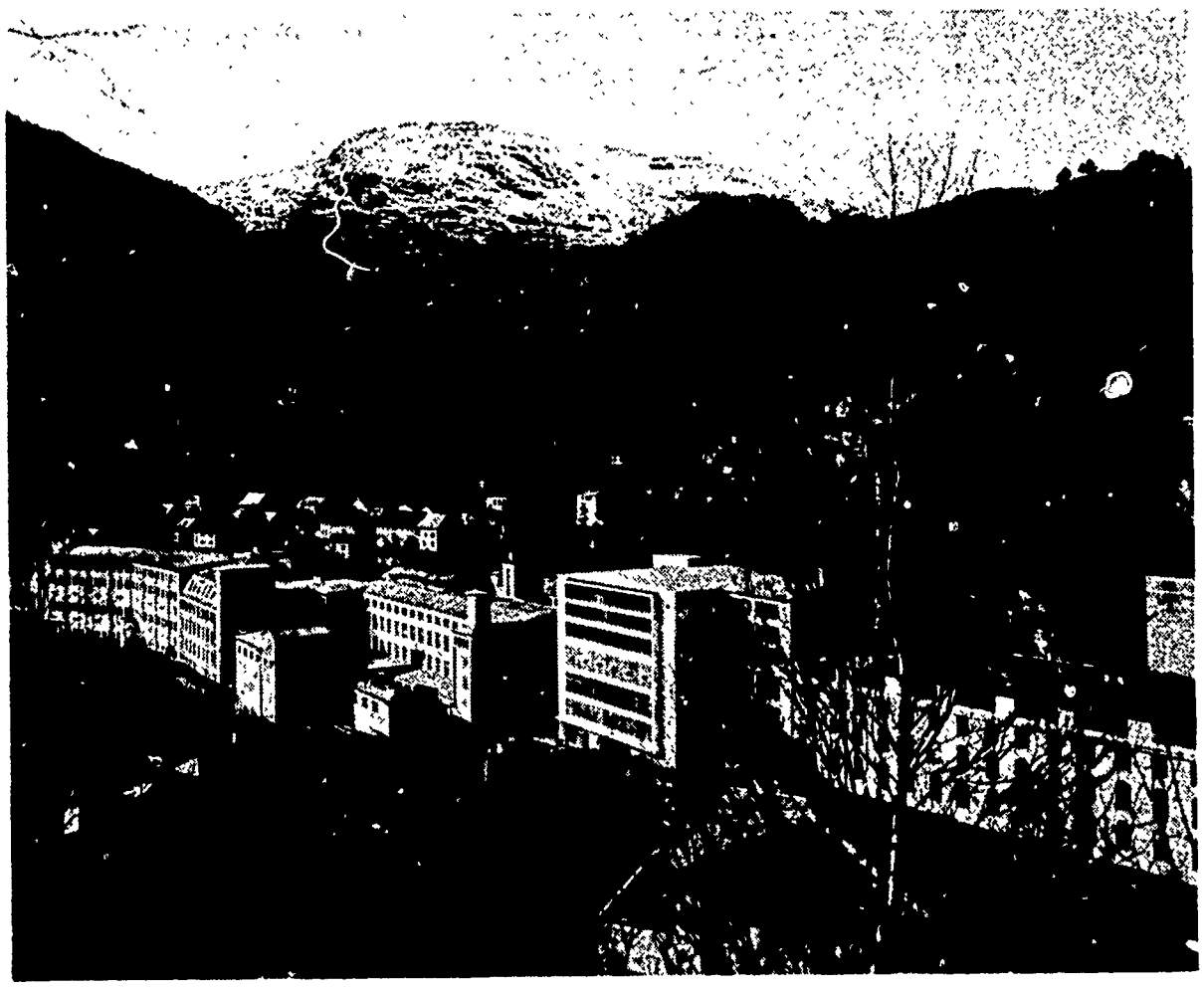
In the far north, reindeer breeding is a staple Lapp livelihood . . .

The Necessity of Vocational Training

It is generally recognized in all industries that it is necessary, in most occupations, to provide training for the employees in the work they are to undertake. This necessity is more urgent today. Modern agriculture, with its rationalized business methods and mechanical equipment demands ability and specialized skill. The fishing fleet, with its large ocean-going ships, modern equipment, and new catching methods, must be manned by specially qualified crews. Prophecies that automation in industry would make the specialist redundant have proved false. On the contrary, in modern industry increasingly large numbers of highly qualified workers are needed who can manipulate and maintain the ever more intricate machines. Members of the growing section of workers who provide service also need systematic training in order that they may carry out their tasks satisfactorily.

In Norway much has been done to ensure a comparatively broad basic training for young persons in those branches of industry where training is regulated by law. Thus in industry and handicrafts it is laid down that most persons who hope to perform qualified work shall serve a term of apprenticeship for about 4 years. There is indeed a tendency to shorten this period, perhaps to 3 years, but this is as a rule evident in cases where the training is more intense; the general principle is unaffected.

... and industrial activity is also found in narrow valleys.



As has been mentioned, the production units in Norway are for the most part so small that strict specialization is difficult to achieve. The skilled worker should therefore be prepared to master a comparatively wide field, and consequently should receive fairly comprehensive training. The expansion and remodelling of industry—a predominant trait of modern society—often makes it necessary for many to change their occupations. Workers who have received a broad basic training will adjust more readily to transfer. But the training is not designed merely to meet the requirements of industry. The worker's security and personal needs are also taken into consideration. Comprehensive training will lessen the monotony and tedium of the work, and will give greater security during periods when man-power is not in great demand.

Training Requirements Vary from one Occupation to another.

Industry, handicraft, commerce, and clerical work have their own Apprentice Act, which will be described later. This Act and the regulations connected therewith give detailed provisions regarding period of apprenticeship, plans for training etc. Other occupations, especially those associated with country districts, such as farming, lumbering, and fishing, have no statutory training for the ordinary workers. There are various possible reasons for this. One obvious one is that it is easier to organize and supervise training in towns and large industrial centres than in country districts. The provisions of the Act therefore apply mainly to towns and other districts where economic life is more developed, even though a number of progressive firms are found in country areas. As regards handicrafts, the influence of the common European traditions is felt. The need for training of beginners has been most press-

ing in the towns. The young persons who begin their work in the towns are as a rule unfamiliar with such work, and must therefore start with elementary basic training under close supervision. The children of farmers and fishermen have been in touch with their predestined occupation from their mother's knee, and do not need systematic basic training so urgently as the youth of the towns. Yet progress has been such that more definite forms of training for youth in the farming areas is also under consideration, and in horticulture and nursery gardening successful attempts at apprentice training have been launched through schools and practical work.

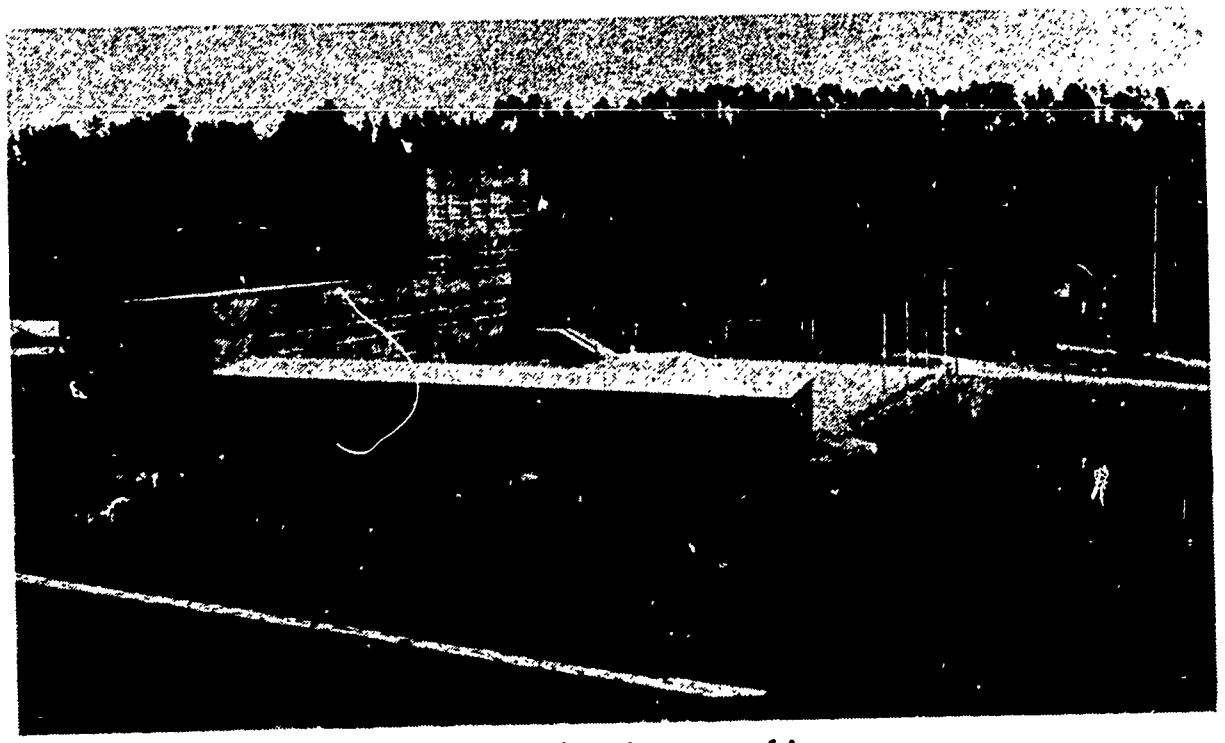
Shipping has primarily recruited its manpower from districts where youth have come into contact with the sea from their early childhood. Developments in the merchant fleet have led to an increasing need for training in this branch, but no legal provisions have yet been adopted for the training of ordinary hands but only for that of officers and certain specialists on board.

Whether a technical legal basis exists or not, an intense effort is being made today in all branches to discover the best forms of vocational training. In view of the position outlined above it is clear that the springboard for this training is of vital importance. Training for an occupation begins when the usual school attendance is completed. Thus it will be of value to give a survey of the general education which Norwegian children receive before we see how they are taken in hand when they begin work.

GENERAL EDUCATION AS A BASIS FOR VOCATIONAL TRAINING

A general education of a high standard is the foundation of industrial society. The campaign to improve general education in Norway ran parallel with the industrial revolution in the middle of the nineteenth century. Seven years' compulsory schooling for all in the 7-year primary school became law through the Education Act of 1860, amended by an Act of 1889. The 7-year primary school is still compulsory for all children in the country, but school-hours, curricula, and organization have been modified considerably. By the new Primary Schools Act of 10 April 1959 the municipalities are empowered to introduce a compulsory 9-year attendance at primary schools for all the children in the municipality. Beyond this, voluntary attendance for a tenth year can be arranged for those leaving their 9-year school. However, qualification for admission to vocational schools and advanced trade schools is based on the 9-year period, that is, all continuation schools will be geared to a complete attendance at the 9-year school.

The aim is to make the 9-year school compulsory throughout the country as soon as it is practically possible. In 1963 a committee was appointed to amend the law with this in view. It is estimated that this important reform will be introduced around 1970.



Many modern school buildings have been erected in recent years.

In the meantime two types of school arrangement are running parallel. Some 150 municipalities have already taken steps to introduce the first 9-year school. This school is undifferentiated during the first 7 years, slightly differentiated during the eight year, and in the ninth year clearly separated lines are followed. The main groups are the general theoretical and the general practical lines. The former can-lead among other things to admission to High School and through this to the University entrance examination. In the ninth year the general practical line offers variations in the curriculum with emphasis according to choice of workshop employment, domestic science, seamanship, agriculture, and commerce and clerical work. All these variations revolve round a hub of purely general subjects, and the practical training is merely preparatory rather than vocational training in the true sense of the expression.

In the general subjects it is possible to study according to various plans at different levels. In some subjects there are three levels, in others two, and a pupil, if so inclined, can take, for example, plan III (highest level) in mathematics, and plan I (lowest level) in languages.

The normal 9-year school organization is 6 years' children's school and 3 years' youth school. The children's school can thus be in small units even in minor localities, while the youth schools are formed at central points to which pupils can be transported, for example by bus.

In the present transitional period, school plans are being worked out by a special committee, the Schools Experimental Committee, which since 1954 has been engaged in preparing the way for school reform. The permanent schools are under the management of another committee, the National Schools Committee. Both of these committees are answerable to the Ministry of Church and Education.

In those municipalities which have not yet introduced the 9-year schools, the old school organization, which received its present form in 1936, still obtains.

As we have seen, according to this arrangement the primary school is a 7-year school, but the municipality can adopt measures whereby a compulsory eighth year is added, which is controlled by special legal provisions and is called continuation school. The continuation school can be extended to 2 years, but only the first year can be made compulsory. Continuation school is oriented to the practical side, a minimum of ¼ and a maximum of ¾ of the instruction being in practical subjects.

After 7-year school pupils can also continue in secondary modern school *(realskole)* which is a 3-year theory-oriented school. The 2 first years in *realskole* coincide with the 2 first years in the 5-year grammar school *(gymnas)*. The *realskole* and *gymnas* pupils go their separate ways after 2 years. The *realskole* pupils continue for a third year and take the *realskole*

examination, while the *gymnas* pupils attend for three more years before sitting for entrance examinations to universities or colleges. In accordance with the new school pattern, the last 2 years of the 9-year school correspond to the first 2 years of *gymnas*, and *gymnas* thus takes the form of a separate 3-year school. The plan is to establish these 3-year *gymnas* schools at central points over the whole country. There is also talk of setting up 4-year *gymnas* schools.

Today, then, entrance to universities and colleges may be achieved in two ways:

a. Through the 9-year school, general theoretical line, followed by 3-year *gymnas*, or
b. Through 7-year school followed by 5-year *gymnas*.

Even before the most recent school reforms, one outcome of the steadily improving standard of living in the country had been a stream of applications from youth seeking an extension of general education after 7 years of school. Between 70 and 80 per cent of each year's class receive more than 7 years general schooling and in the larger towns the figure is between 90 and 95 per cent. About 40 per cent pass on to *realskole* and *gymnas*, and almost 20 per cent reach the universitiy and college examination standard. The school reform will therefore primarily affect that section of youth which formerly received only the compulsory basic schooling with perhaps one year's continuation school. But it is primarily this group which is recruited to the practical occupations, which will thus gradually acquire a better educated type of beginner.

Another important consequence of the school reform will be that the difference between education in urban and rural districts will diminish. As was described in the introduction to this booklet, circumstances, and with them facilities for school attendance, vary greatly from one part of the country to another and from town to country. The country school

often has few pupils to cater for, so that children of several year-groups must be placed together in one class. The curriculum must be simplified and the quality of the education suffers. The new Education Act gives priority to the removal of the distinction between urban and rural schools, and its provisions are framed accordingly.

School Curricula

The main subjects in the children's school are scripture, Norwegian, writing, and arithmetic. Besides these, the children are taught geography, history, and natural science; they also receive instruction in practical subjects such as needlework, drawing, domestic work, singing, and gymnastics. English is taught to an increasing extent, and in the 9-year school it is supposed to be compulsory from the fifth year. In the last 2 years, the eighth and ninth years, however, the pupils are allowed to choose other subjects in place of English.

In the *realskole* advanced lessons in the same subjects are given, with the addition of German and mathematics. In the *gymnas* the pupils can make their choice between various lines, with languages, mathematics, or economics as a main subject.

The People's High School—a Freer Type of School for Youth

Before we leave the subject of schools in general, mention should be made of a special type of school which, though without direct importance to advanced vocational training, is often sought by youngsters who have already held jobs—the People's High School. Young persons between 16 and 20 years who desire a free education of an ideological or sociological nature can enter

this school without an examination. Many of the schools are run by organizations and are associated with voluntary educational schemes. They are nevertheless regulated by law, the People's High School Act of 1948, and they receive government subsidy on a fixed scale. As the winter course usually lasts for only 8 months, the same schools often provide summer courses during which emphasis is laid on vocational training.

Under the old general school system it may be said that *realskole* and *gymnas* on the whole were the stepping-stones to occupations of a more academic or intellectual nature, and to office positions, while the primary schools, possibly supplemented by continuation school, offered the basic education for those seeking to take up handicraft, employment in industry or other practical occupations. But with the steady increase of aspirants to *realskole,* this generalization has become unrealistic. Those young persons in particular who have plans for advanced technical education now take care to acquire a broad general education before they set out into the working world. When the 9-year school has been established throughout the country, the distinction between the youth groups will be eliminated, and applications for the practical jobs will also be made by young persons with talent for theory.

In any case, all will have a greater fund of general knowledge on which to draw when they begin their vocational training.

THE INTRODUCTION OF YOUNG PEOPLE INTO INDUSTRIAL LIFE

In the normal course of events young people will be 14 years old when they leave primary school, 15 when they leave continuation school, 16 when they complete the 9-year unified school, and still a year older when they sit for their *realskole* examination.

We can today (1963) set the normal age at 16. Then the youngsters must make up their mind what they are going to do later in life.

Some of them seek work in various branches of industry without further preparation. There is still little difficulty in finding work, even though the large groups born in 1946 and 1947 have already begun to make an impression on the labour market. Ever since peace was declared in 1945 Norway has enjoyed full employment, interrupted only by temporary unemployment in a few country districts during the winter. Business concerns have therefore as a rule welcomed the young applicants with open arms, offering relatively high wages to unskilled workers. Many young people have yielded to the temptation and have accepted well-paid jobs that we can call "blind alley" occupations, such as those of messengers, relief-workers and the like.

On the other hand, the same circumstances have given the young people an opportunity to make a careful choice of occupation, and to acquire vocational training without yielding to the temptation of snapping up any job that happens to be vacant. In recent years, therefore, the authorities have done much towards assisting youngsters with technical advice when they want to select an occupation or plan their vocational training.

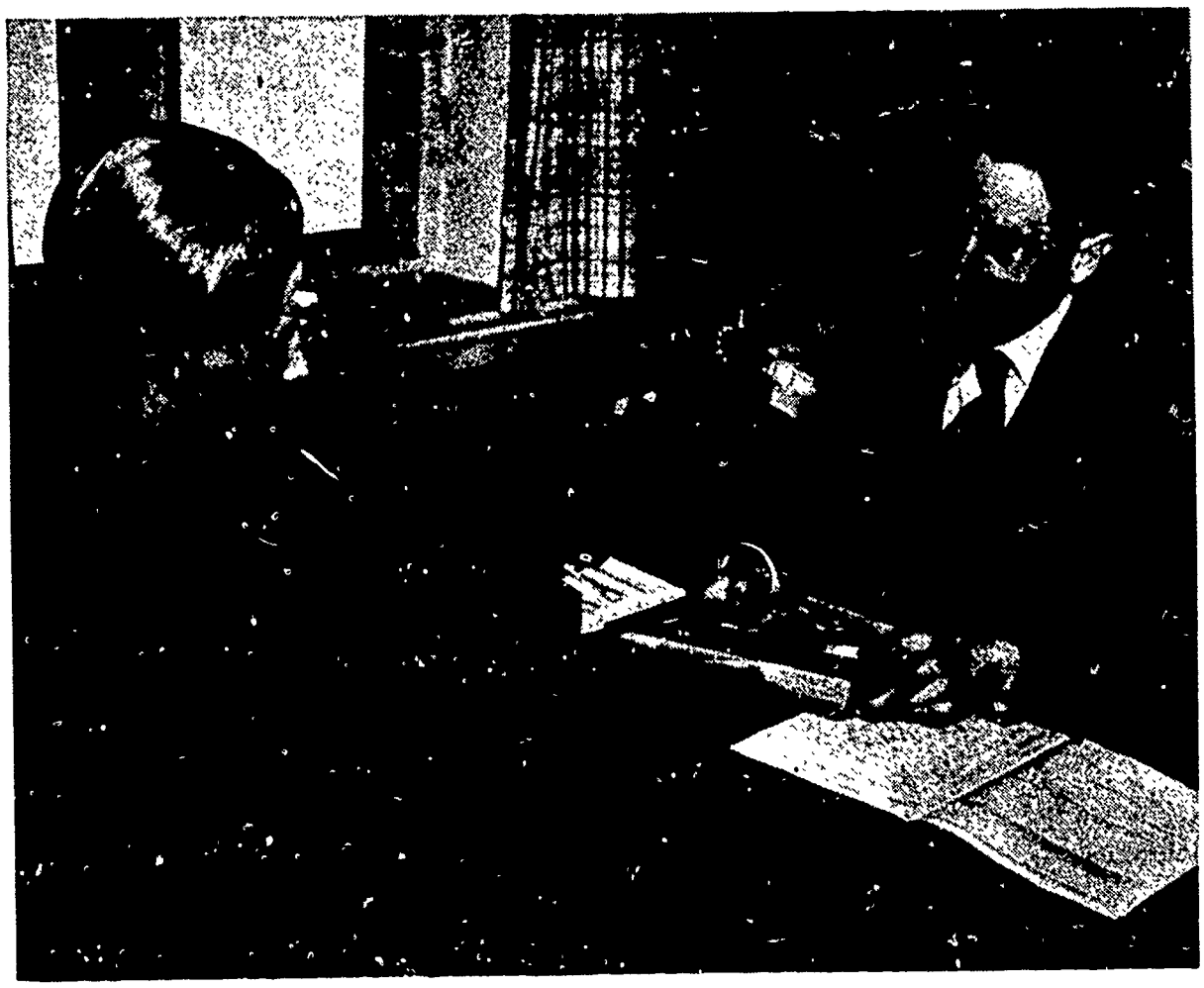
In Norway there are special government institutions for placement of workers. Private employment bureaus are only permitted to operate to a limited extent. Yet this does not mean that all employees find work through the government employment bureaus. The majority of vacant posts are filled through direct agreement between employer and applicant. But those who desire advice and assistance when looking for jobs need only apply to the offices of the public employment bureaus.

Regulations governing the public employment service are laid down in the Employment Act of 1947 with later amendments. The Act allots responsibility for employment, vocational guidance, and remedies against possible unemployment to a central state body, the Directorate of Labour (Arbeidsdirektoratet). The Directorate has district offices in all counties and in some county sub-districts. The last-mentioned offices have until recently been municipal or intermunicipal, but in 1963 the State took over all employment bureaus. The expenses are thus all defrayed by the State. Both the county and the district offices are placed under the supervision of publicy appointed boards on which both employers and employees have seats. The employers have a certain duty to notify the employment exchanges of vacant positions, but otherwise the service is voluntary. All the services connected with the boards are free and the parties are not bound in any way to follow the advice given.

Special Employment Services are Available to Young People.

The information in the above section applies to all employees. But the employment offices may establish special departments or appoint special officers to guide young persons faced with the choice of an occupation. This is the aspect of employment service that is of special significance to vocational training.

A steadily increasing number of young people visit the vocational counsellors to get information and advice and . . .



Vocational guidance as a practical measure is relatively novel in Norway, but even before 1940 there were vocational guidance departments attached to the employment offices of two of the largest cities. These departments undertook the placement of young persons, and based their counsel to a certain extent on psychological tests. But not until the Employment Act came into force was any significant advance made in this work. Vocational counsellors are now attached to all county and to most district employment offices. Hitherto 76 such posts have been filled. In addition there are 5 so-called vocational psychology institutes with 13 trained vocational psychologists. Besides giving the usual vocational guidance, these institutes also carry out psychological tests, especially on apprentices and pupils at vocational schools. Futhermore they act in an advisory capacity to industrial firms, handicraft enterprises etc. The service to the vocational schools takes the form of systematic interviews and tests aimed at discovering the applicants who can derive the greatest benefit from the training concerned.

The Directorate of Labour, which has a special department for vocational guidance, staffed by a psychologist, teachers, and specialists in the various branches, has emphasized the following points in its recommendations to counsellors:

They shall keep themselves informed of the employment prospects for young people, both in their own district and in the country as a whole. Then when they give information and counsel to a client they will be able to combine the interests and talents of each individual with an unbiased estimate of his chances of bringing his plans to reality.

It is equally important that they should at all times possess correct information on schools and educational facilities, and on the availability of stipends and other economic assistance towards education.

The Directorate makes all efforts to obtain the necessary

information. An occupation register has been prepared in loose-leaf-system, that gives systematic information on the various occupations, covering around 400 types of work. In addition, the leading schools and educational institutions at home and abroad have been card-indexed. The vocational counsellors regularly receive the latest information from this source.

Co-operation with the Schools

is an important part of the vocational counsellor's activity. From the time of their inception as far as time has permitted, these officers have visited classes of leavers in the ordinary schools, and have also put the pupil's parents in the picture. The Directorate of Labour has prepared special brochures that are distributed to leavers. One of these brochures is directed to pupils in the seventh class of primary school, and another to pupils in the third class of *realskole*. These brochures are discussed by the teachers during school-hours. This form of vocational guidance in school, however, has not been regarded favourably, and in 1956 a co-ordination committee for vocational guidance was therefore appointed, on which both ordinary schools, vocational schools, teachers' colleges, and employment officials are represented. This committee has prepared recommendations for intensive vocational guidance in the schools, and has later offered counsel as to how its suggestions may be realized. The proposal is that in the ordinary schools a fixed number of hours shall be allotted to theoretical and practical vocational guidance. The matter will be clarified by the teachers, who will attend a preliminary course on this subject arranged by the Directorate or by teachers' training organizations in collaboration with the Directorate.

Plans are being designed for propagation of information in the various types of school, and instructional material is being obtained by the Directorate in consultation with the Co-

ordination Committee. Practical acquaintance with occupations can be made by visits to firms and to vocational training schools, where the pupils can try their hand at an occupation for a short period.

In the 9-year unified school of the future great importance is attached to instruction especially designed with an occupation in view. It is assumed that each school will have a consultant psychologist who will take charge of all work connected with vocational guidance.

Methods of the Vocational Counsellors

Individual vocational guidance is voluntary work. The primary aim is to provide factual information and practical help. An attempt is made to fall in with the youngster's interests and consciously to avoid anything savouring of compulsion or persuasion designed to make a youngster change his mind to suit other purposes. Only if it is manifest that the plans are unrealistic does the counsellor try to guide his client's interests into other channels. The counsellor's most important task is to help the youngster to fulfil the hopes the youngster himself has formed. The consultation is most successful when the young client goes away with the feeling that he need not have sought help at all.

Should it be necessary, and if the client himself so desires, the counsellor can help him to discover if his intelligence and talents are adequate to ensure a degree of success in the occupation selected. This information is basically gained through interviews, evaluation of school reports, references from former testimony from teachers, etc. If it is desirable the client can also undergo trials to test his skill. New tests are constantly prepared and controlled by the Directorate of Labour and the institutes for personnel psychology, since it is clearly not worth while to use tests which investigation has shown to be of little

value. Even with this reservation tests are applied with the greatest caution, and information culled from lengthy observation, for example, that available from school reports, is held more valuable than tests.

We can sum up the youngster's most important steps up the ladder to working life as follows:

1. While still at school, young people are encouraged to take an interest in a choice of occupation, and are made aware of the demands of working life.
2. Through individual treatment the vocational counsellors help the young people to clarify their wishes regarding their future occupation, bearing in mind their ability to succeed therein, and to plan their education accordingly.
3. The employment officer then assists the youngsters to find work that fits in with their plans.

Vocational Training at School and at Work

Vocational training must be arranged separately for each of the different occupations. Educational and training requirements vary widely from one occupation to another. In some occupations it is sufficient for a beginner to undergo a short period of training of a week or two before he or she masters the work satisfactorily. In other jobs, long thorough practical as well as theoretical instruction is needed before the aspirant can attain a high enough standard.

In some occupations training takes place at the work-place, in others systematic classroom work is required, and in still others a combination of these two methods is needed. The training system has developed along different lines in the various branches, and it is therefore natural to study the conditions in each industry in turn, even though the lines of distinction between them are seldom clear. Let us first take agriculture, the original mother industry.

AGRICULTURE

Agriculture is now mechanized. This has given rise to a new occupational group, the agricultural mechanics, who receive their training at the vocational training schools.

Special Training in Agriculture

Training for agricultural occupations has followed the traditional pattern of practical work on the farm, in the forest, or in the market garden, but schools have also been available for those who wish to receive a more theoretical training for their work. Applications for entry to the schools have been comparatively few, though in recent years there has been an increase. In Norway most of the farms are fairly small, and statistics from 1959 reveal that only 12.5 per cent of the farmers who work between 5 and 50 decares* have attended

* 1 decare = 1,000 sq.m.

agricultural school. Of those farming between 50 and 100 decares, more than a quarter had attended school, and of those with over 100 decares, around 43—44 per cent. These figures show a distinct increase from 1950. In more recent years much attention has been paid to agricultural training, and several public committees have been active. The formal result was the tabling of a proposal in 1963 recommending a special Act for agricultural schools, whereby agricultural training can be divided into 7 groups.

1. Schools that give general comprehensive training in agriculture.
2. Horticulture or market garden schools that give special training in these branches.
3. Forestry schools.
4. Dairy schools.
5. Agricultural machinery schools with emphasis on maintenance and repairs.
6. Courses on reorganisation of plots of adjacent land in different ownership.
7. Schools that provide training in other special branches of agriculture.

Agricultural Schools

Schools of all these 7 types are already in operation. The largest group is the agricultural schools of which there are 49. These pr vide various courses of different duration.

One c. arse consists of theoretical training during two winters with intervening practical work either on the school's own farm or on another farm in co-operation with the school.

One course lasts for a year, with theory and practice during the whole period. Some of the practical work can be done on an approved training farm away, or on the spot.

One course gives theoretical instruction for one winter and practical work for one summer. At some schools a practical course of instruction is available, lasting for 6 months or one year (apprentice course).

Besides these, the schools offer shorter courses in various subjects, such as tractor-driving.

The minimum age of admission to agricultural schools is 18 years, and applicants are required to have done at least one year's practical work before entry. Young persons of 16 can be admitted to apprentice courses.

The same school often runs several of the above-mentioned types of course simultaneously. The choice of the form of the course may well be influenced by the nature of the farming in the individual districts.

The reason why the theoretical courses are laid on in the winter is of course to enable the young people to help out on their parents' farms in the summer. But the time that can most easily be spared from the farmwork varies somewhat from one part of the country to another. There is similar variation in the conduct of the work. Therefore there is no general national plan for instruction at these schools; the only requirement is that a minimum number of hours on certain subjects shall be completed so that attendance at the course can be officially recognized. These subjects can be divided into 6 groups: cultivation of crops, animal husbandry, horticulture, forestry, technical subjects, and economics.

In addition to this group of subjects, certain schools offer special courses in carpentry, smithery and welding. This training is designed to enable the farmers to undertake simple repairs of machinery and equipment. These courses must be kept up to date in order to keep pace with the ever-increasing use of machines in agriculture.

Horticulture and Market Gardening

Six schools give special training in these subjects. Whereas the agricultural schools are as a rule administered by counties or municipalities, the horticulture and market garden schools are purely State-run. The market garden course, the main course at these schools, provides 14 months of theoretical and practical training. The course can be channelled into various special lines, devoted to: general work, vegetables, fruit-growing, nursery gardening, and hot-house management. At one school there is a landscape gardening line. These courses culminate in what is called the market gardener's examination. A one-year practical-theoretical course of general instruction is known as the horticulture course.

A couple of the market garden schools provide a so-called apprentice course for younger pupils, which lasts for 9 months, and a 6-month purely practical course which includes exercises in correct working technique. In addition, there are short courses of 3 months or less in specialized tasks, such as florist's work.

In order to be accepted for horticulture and market garden courses the applicant must be 18 years of age and must have practical experience in the line. The apprentice course can form a basis for admission to the main course.

Besides those at the 6 special schools, horticulture courses are held at the ordinary agricultural schools.

Dairy Schools

The State runs a dairy school where dairy managers and other skilled dairy workers receive training. This is given over a period of 3 years and 7 months on the following lines: one year's practical course, one year's theoretical course, then another year's practical course and finally 3 months of theoretical

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instruction. The school also offers supplementary courses for skilled workers and a number of special courses. Besides this there are two other schools which give courses of 2 years and 3 months, of which the first year is a practical apprentice's course, and the rest of the period is divided between theory and practice. These schools are solely devoted to the training of dairy workers, most of which are women.

Agricultural Machinery Schools

As has been observed, agriculture is becoming more and more dependent on machinery, and therefore for a considerable time courses have been held under the aegis of the Agricultural Technical Institute on the use and maintenance of agricultural machinery. These courses are somewhat more advanced than the instruction that is given at the agricultural schools on the use of machinery.

The courses have been held at two permanent localities outside the institute, and one of these localities has now been organized as a special school. This, too, is run by the State. Repairers of agricultural machinery and equipment are trained in the vocational schools for handicraft and industry in 3-year schools.

Forestry Schools

As it appears from the description of the group of subjects dealt with at the agricultural schools, instruction in forestry is a part of agricultural training. A great number of farms possess areas of woodland, and correct care and management of these is of high importance. Many of the agricultural schools therefore have special courses in forestry, which last for six months. In addition, there are 4 independent State forestry schools. Three of them hold courses of one and a half years and are designed to train foresters and forester's assistants. They are essentially theoretical schools, and entrants should have experience and a good foreknowledge of the subject. The fourth school provides basic practical training in forestry, in preparation for entry to the forester's course.

After World War II a special State school for forestry workers was established where special instruction is given on modern felling machinery and felling methods. This enterprise has aroused considerable interest abroad.

All the agricultural schools are under the supervision of the Ministry, which is responsible for all agricultural matters. A committee, composed of professionals in the industry, the Agricultural Training Committee, has been appointed to act in an advisory capacity to the Ministry.

In agriculture as in all occupations, much interest has been taken in training questions during recent years; measures have been taken to modernize the curricula in all schools, and the

demand for qualified workers has increased. As a consequence a proposal has been put forward to introduce a system whereby a certificate of proficiency must be obtained by would-be entrants to agricultural occupations. This proposal has not yet been adopted, but it is possible to qualify voluntarily for such a certificate.

A similar voluntary scheme for apprentices has also been introduced, for the benefit of young persons who wish to be trained for jobs in agriculture.

MARITIME OCCUPATIONS

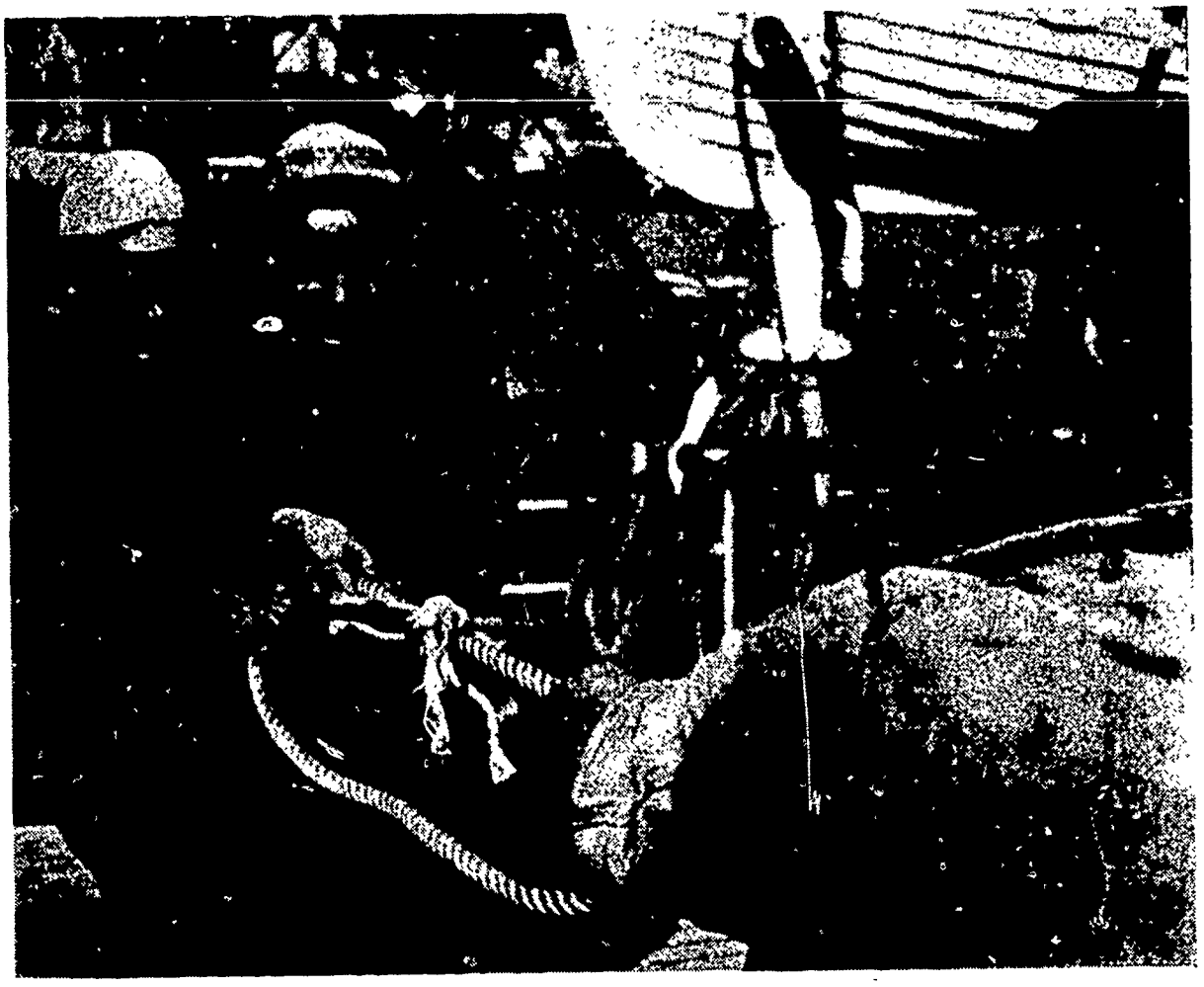
The Training of Seamen[1]

Shipping is one of Norway's most important industries, even if the number employed in the fleet is relatively small. At the moment the Norwegian merchant fleet is the fourth biggest in the world, and the ships are for the most part modern, and fitted with the most up-to-date technical equipment. Much responsibility lies on the shoulders of the deck- and engineer officers. Norwegian ships also have a very high social standard, and this too makes great demands on that part of the crew that is concerned with service. The country therefore has good schools for training men in all these branches, with special establishments for navigators, engineers, wireless engineers, cooks, and stewards. A special course of training is also available for ship's electricians.

Navigation Schools

In order to become an officer on a Norwegian ship the aspirant must possess a special certificate which is issued on the basis of an examination taken at the appropriate officers'

[1] See also *Norway and Her Sailors.*



Seamanship must be learnt from the very beginning . . .

school, qualifying time at sea according to fixed regulations, and in the case of cooks and stewards, practical experience of other kinds in their branches.

For deck officers this certificate has 5 grades:

Coastal master's certificate, class 2, qualifies the holder to sail small ships on coastal routes.

Coastal master's certificate, class 1, qualifies the holder to sail somewhat larger ships (up to 600 tons) on coastal routes.

There is also a fishing master's certificate that qualifies the holder to sail fishing vessels. On coastal routes, the mate's

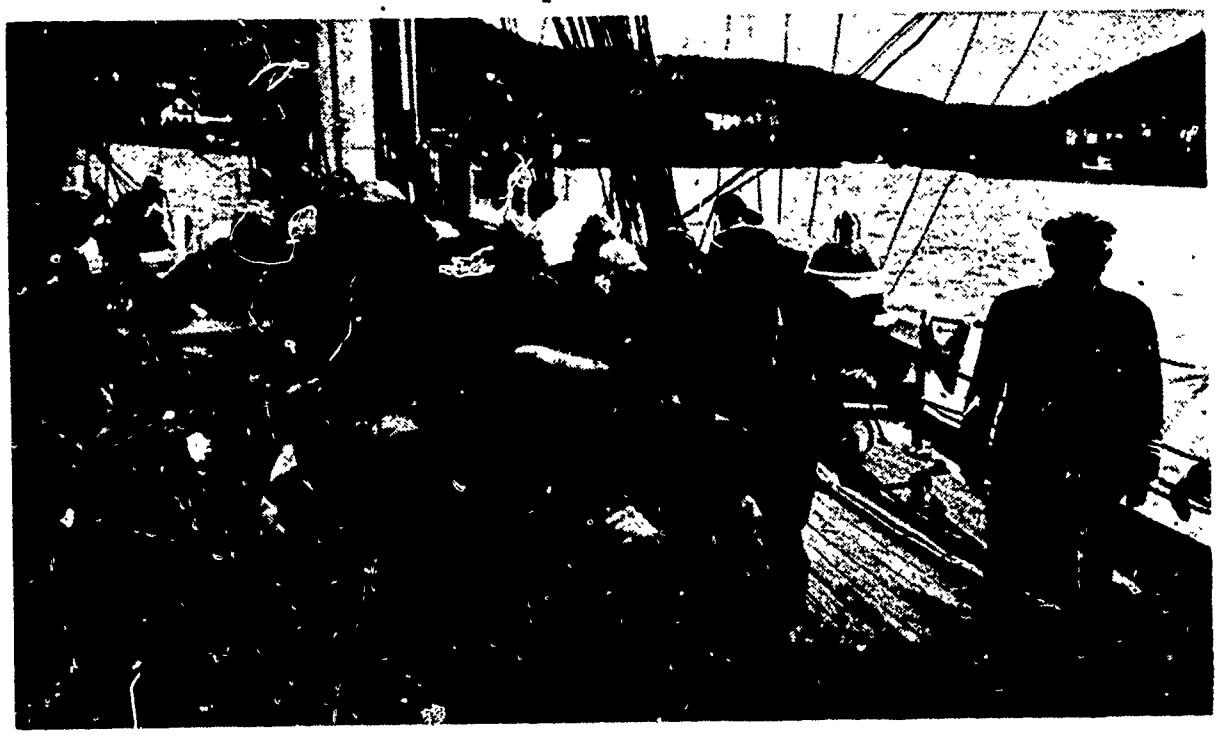
certificate, class 2, qualifies the holder for subordinate service as mate or as first officer on coastal routes.

Mate's certificate, class 1, qualifies the holder as mate on board ships in all waters and as master of smaller ships.

Master's certificate qualifies the holder to sail all types of ship in all waters.

To obtain a certificate the candidate must pass the nautical college examination corresponding to the grade, and must have served an appointed time at sea. For example, for a coastal master's certificate class 2, 36 months must have been served at sea, for a coastal master's certificate class 1, 42 months. A certain amount of this time must have been spent on a ship of over 25 tons. The same rule applies in the case of the fishing master's certificate, but here 12 months of the time must have been spent in fishing vessels of over 25 tons.

. . . and on the training ships the cadets learn fundamental sea-lore from the capstan bar onwards.



A second mate's certificate class 2 requires 36 months' sea time, 12 of them on ocean routes. A first-class mate's certificate is conditional on at least 12 months' service as junior officers. Here the training is carried out by stages. The master's certificate requires an additional 12 months' service at sea as first officer.

The schools for navigation follow the same principle, but it is possible to become a pupil with somewhat less practical experience than that required to obtain a certificate. If need be, the candidate must put in the necessary sea time after he has taken his examination before the certificate is issued.

There are altogether 15 nautical schools in different parts of the country. They all have courses for the coastal master's certificate, the mate's certificate and the master's certificate. In Oslo and Bergen there are also courses for the extra master's certificate. In Oslo advanced training in navigation is available, while the section at Bergen follows a commercial and maritime law line, with emphasis on maritime law, shipping insurance, salvage law, etc. Seven of the nautical schools also hold courses for wireless telegraphists.

In order to be accepted for a coastal master's course a candidate must have served at least 24 months at sea after having reached the age of 15 years. The second-class certificate course takes 13 weeks and is concluded by a written and oral examination. The coastal master's course, class 1, lasts for 4 months. Only those who have passed the second-class examination are accepted.

The course for the fishing master's certificate is held at 4 schools and takes 10 months. This course is the same as the first-class coastal master's course, with special additional subjects of importance in the fishing fleet.

At the mate's section of the nautical schools the acceptance requirements included 30 months sea time after reaching the age of 15. Twelve months must have been spent on ocean

routes. The course for the mate's second-class certificate lasts for 10 months. The course for the first-class certificate also lasts 10 months and is based either on the mate's second-class course, the coastal master's course, or on the fishing master's course plus a special acceptance test.

Candidates for the master's certificate must have passed the examination for the first-class mate's certificate. The master's course lasts for one school year.

There are some 185 women radio operators in the Norwegian Merchant Navy.

Training of Ship's Wireless Officers

As mentioned above, 7 nautical schools hold courses for ship's wireless officers. These too can obtain certificates of 2 grades. The courses at the schools prepare the candidates primarily for the second-class certificate. Requirements for the first-class certificate include advanced training in radio technique and at least one year's practical experience as radio telegraphist class 2.

The courses last for 10 months; the candidates must be at least 17 years old and must have passed the examination at the end of *realskole* or of the 9-year unified school.

Training of Ship's Engineers

The certificate of an engineer of the merchant fleet has three grades: the engineer's certificate class 2, engineer's certificate class 1, and the chief engineer's certificate. The first of these qualifies the holder to be in charge of engines up to 700 horse-power, the second qualifies the holder to be in charge of more powerful engines.

These may act as chief engineers of ships with engines of up to 400 and 700 horse-power respectively, whereas applicants for the post of chief engineer on larger ships must possess a chief engineer's certificate.

A certificate is obtained after a combination of school attendance and practical experience. A second-class engineer's certificate requires at least 3 months of practical experience in an engineering workshop or in a similar plant. A half of this time must have been spent at a workshop where engines or boiler engines are built or repaired. This workshop time can also be completed in 2 years at the engineer's training schools. The school is divided into a beginner's course of 10 months and an advanced workshop course of the same length.

In addition to workshop experience, the engineer must have at least 18 months' service as engineer on board a ship sailed under certificate, and he must take the examination at the engineeer's school.

A first engineer must take a fresh course at the engineer's school and must serve an additional 24 months at sea. Half of this time can be taken up in a workshop ashore of the same type as that referred to in the requirements for second engineer.

A chief engineer must have additional sea time of which 24 months must have been served as first engineer..

The courses at the school are dove-tailed, and a candidate must pass the lower grade examination before he can begin the senior course. There are altogether 17 engineering schools in the country. Ten of them offer all the courses mentioned above, whereas the other 7 only hold courses for second engineers. Second engineer's courses are arranged both as day- and evening courses. The day course takes 5 months, and the school holds two such courses per year. The evening courses last for two years, with 13–14 hours of work per week.

Entrants for the day course must be at least 17, and must have completed the engineer's preliminary courses, or 9 months in a workshop and 6 months' service at sea. At the engineer's schools, too, it is permissible to take the examination before the practical work and service at sea necessary for a certificate have been completed.

The evening course is designed for young people who are putting in their workshop time or entering the engineer's preliminary course. The minimum age here is therefore only 16 years, and no more than 3 months' previous sea time is required.

The courses for first engineers and chief engineers are both day courses of 5 months' duration.

The engineers' preliminary courses that have been mentioned in connection with the requirements for certificates are held partly at engineering schools, but most often at workshop's

schools for handicrafts and industry. The equipment resembles that which is used on the usual iron- and metalwork courses at these schools, and the same teacher can give instruction in practical subjects. Thus the standard iron- and metal-worker's course can be accepted as practical work for a certificate. Such a course, which lasts for 10 months, is recognized as equivalent to 14 months' practical work at a workshop. Certain courses in other branches of industrial training can also count as practical engineering work, for example the 2-year course at the technical schools. A special workshop course of shorter duration is held at a junior nautical school.

Ship's Electricians

The large modern ship has become so complicated a working unit that specialists are now needed who traditionally have not been associated with nautical occupations. Specially trained electricians, for example, are necessary, and in 1954 legal provisions regarding a certificate for these tradesmen were introduced. In addition to the practical experience and service at sea, they are required to sit for an examination after a special course for ship's electricians that is held at 9 engineering schools. This course lasts for 10 months, and would-be entrants must be at least 18, must have 18 months' practical experience as electricians or mechanics, and must have at least 6 months' engineering service on board ship.

Cooks and Stewards

Much is demanded of the serving staff on board a Norwegian ship, and therefore an Act of 1949 includes regulations regarding a certificate for those who wish to become cooks and stewards in the merchant fleet.

The obligation here refers only to those ships which according to crew regulations shall have a cook or steward on board. Fishing and whaling vessels are exempted.

In order to obtain a cook's certificate the candidate must have had at least 36 months' experience in the restaurant trade and he must have passed an examination at the cooks' school. The requirements for a steward's certificate are 36 months' service as a cook and examination at a recognized school.

There are now 9 cooks' schools in the country, with a stewards' course at 4 of them. Pupils in the commissariat line of the marine corps of sea defence have the right to apply for a cook's certificate when their contract time is up.

A candidate for entry to cooks' schools must have had 24 months of experience in the restaurant trade, at least twelve of them spent in a ship's galley. The school-work lasts for 10 months.

Entrants to the stewards' course must have passed the cooks' examination. The course lasts for 8 months, and the subjects include book-keeping, calculation, preparing menus, legal matters, etc.

First Trip Courses

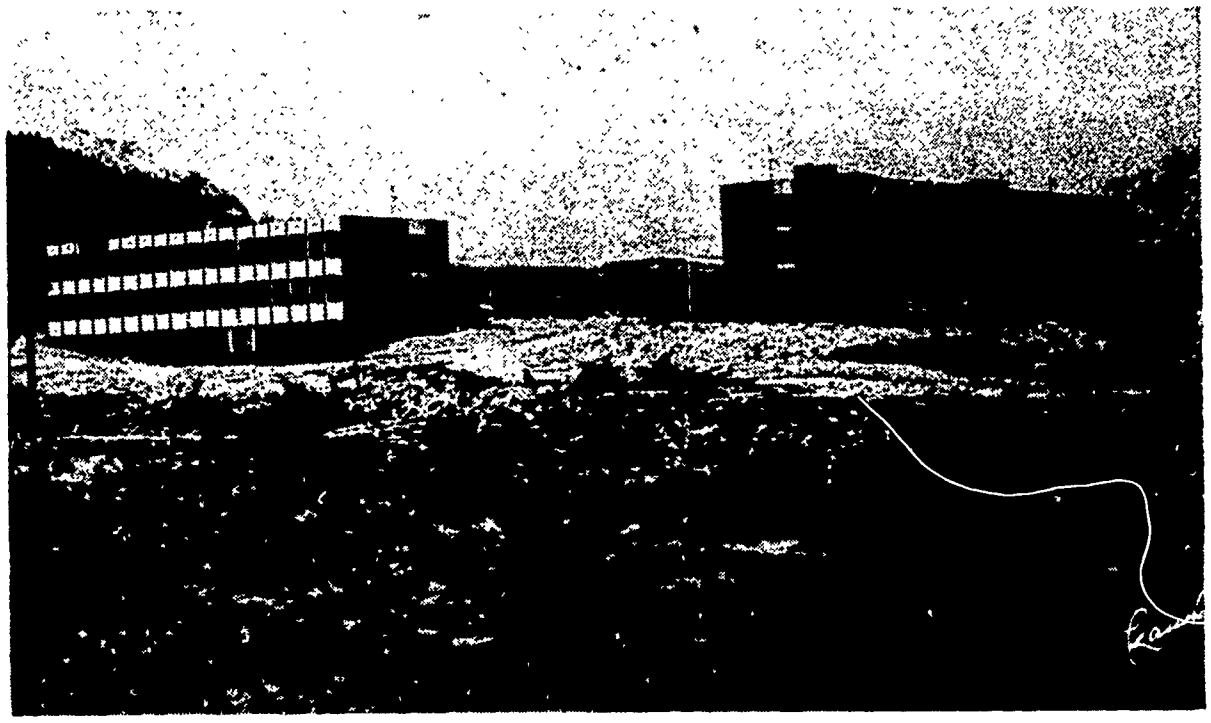
Before we leave the subject of the training of seamen, mention should be made of the training of the junior members of the crew. There is no compulsory school training for ordinary seamen, but much weight has been attached to comprehensive courses for the so-called "first-trip" boys. It is believed that all who wish to apply for work at sea should have the opportunity to take a short course where they can acquaint themselves with working conditions on board ship, and receive an introduction to their jobs. The course is a form of vocational guidance, giving the youngster a chance to find out if he finds the work congenial.

The courses last as a rule for 2 months, and are held on board training ships, though sometimes at training centres ashore. Various lines are available, according to whether the candidate aims to serve on deck, in the engine-room, or in the galley. The time spent is reckoned as part of the sea time required for the various officers' certificates. The above-mentioned junior nautical school has longer courses of about 6 months' duration.

Fishermen have proud traditions in Norway. It is not long before the boys are able fishermen, but they must have training.

Fishermen's Schools

As was mentioned in the description of the training of ships officers, there are special schools for fishing skippers. These were all established after World War II, and are called fishing trade schools. Throughout the centuries there has been no special training for fishermen. As a rule, they fished from small boats along the coast, and the sons sailed with their fathers as soon as they were old enough, learning the trade. The big ocean-going fishing vessels make entirely different demands on those who work in them, and this is why these schools came into being. Apart from the training for skippers, these schools also provide courses for radio telegraphists and cooks in the fishing fleet.



INDUSTRY AND HANDICRAFT

A survey of the economic life of Norway has revealed that handicrafts and industry now employ the largest total of workers in the country. In Norway there is a distinction between handicrafts and industry, because there is special legislation governing handicrafts. This has had an effect on the training programme for these occupations, even though the distinction is gradually disappearing.

The Handicrafts Act of 1913 demands special qualifications from those who pursue an occupation in handicrafts as an enterprise with hired assistance. A person who wishes to enter a business of this nature must possess a handicraft certificate, and to acquire this he must undergo a public test to prove his special skill. He must also pass a test in the book-keeping and cost-accounting necessary in conducting the business, and must provide written proof of a certain period of practical experience, as a rule 6 years.

With the changes in methods of production, what is handicraft and what industry is no longer clear. Few of the handicrafts performed today are carried out solely by hand. Machines have taken over a substantial share of the work in most branches. The definition of handicraft trade today therefore indicates those branches that are expressly referred to

in the Handicrafts Act, at present 57 different branches. At present the Government is deliberating a proposal from a public committee that the Handicrafts Act should be repealed and replaced by a form of voluntary qualification test. One of the arguments in favour of this step is the fact that the Act is only valid in part of the country, at the moment 106 out of over 500 municipalities.

The Handicrafts Act has been mentioned at some length here because the Act, basically concerned with qualification requirements, also contains provisions regarding the training of young workers. All young persons who enter one of these trades should be trained by the proprietor or master-craftsman to become tradesmen in the course of a certain time (from 3 to 5 years), and the training time should be concluded by a trade test, the apprentice's test. Certainly, the youngster could himself decide whether to take the test or not, but he who hoped to start business on his own account later, would be eager to do so.

The test demanded knowledge of a certain amount of special theory, and this in its turn led to the opening of apprentices' night-schools which provided 3-year courses of theoretical instruction. When industry expanded and felt the need for qualified tradesmen, the training of these slipped into the pattern already followed by the handicraft pupils.

Whereas apprenticeship in handicrafts is some hundreds of years old, and the first apprentice schools were established nearly 150 years ago, an apprentice system in industry was first organized in the 1920s. However, not before 1950 was the training regulated by law.

In the meantime new forms of training for workers in handicrafts and industry were developed. The firms found that initial training of young persons on the spot took up proportionally too much time, and they combined to establish common training courses for these beginners. These courses

were then taken over by public authorities, that is by municipal schools, and foundations of the present occupational schools for handicrafts and industry were thus laid. The first preparatory schools were founded just after the turn of the century, but not before 1940 was their organization prescribed by statute. The Act of 1 March 1940 regarding training schools for handicrafts and industry did not come into operation before 1945 owing to the War. There have been a number of amendments. In the same period there has been rapid development in this school service; the number of places for pupils has been doubled and redoubled, and new lines and courses introduced.

One of the chief aims of this development is that all who apply for special training within handicrafts and industry shall first have an opportunity to take an elementary course at a public school, before they seek apprenticeship. Before explaining the apprentice system according to the Act of 1950, then, we will give a survey of the vocational schools for handicrafts and industry.

Vocational Schools for Handicrafts and Industry

According to the above-mentioned Vocational Schools Act the schools are divided into 4 main types:

schools before apprenticeship, schools during apprenticeship, schools after apprenticeship and schools that give technical and general instruction.

The workshop schools form the largest group, their number having increased from about 40 schools in 1945 to 75 in 1962-3. During the same period the total of pupils has risen from 2,500 to 9,200, and in 1963-4 it will approach 11,000.

The aim of the school is to give the young pupils a systematic practical and theoretical training in a trade within handicrafts or industry, providing a knowledge of tools, materials, ma-

The bakery trade is partially industrialized,
and the schools have modern equipment.

chines, working methods, and skills of the trade, so that a sound foundation is laid for their more advanced training. In accordance with an appointed plan the schools should also broaden the pupils' general knowledge and inculcate good working habits. They must be made aware of the nature of the society they live in, and of the ethical and moral norms upon which our culture is built. Another important part of the training concerns safety measures and health precautions at the place of work.

Since the courses are introductory, the practical training involved must be relevant to the occupation in question. It is estimated that there are between 60 and 70 distinguishable main occupations within handicrafts and industry. Many of these are pursued by so few that it is not feasible to open a special line for them at the vocational schools, but the largest schools offer instruction in almost 50 trades. Elsewhere in the country each county is regarded as a unit, and an attempt is made to allocate the lines to the various schools so that as many trades as possible have lines at one school or the other. Some curricula form a natural stepping-stone for progress to a number of trades. Thus, for example, the elementary workshop school for iron- and metalworkers can prepare mechanics, engineers, blacksmiths, instrument-makers, motor-mechanics etc. for their work. The basic woodwork instruction provides a background for joiners, carpenters and the like. At one of these elementary schools a further year's instruction is available, the advanced workshop class, with courses for motor mechanics, mechanical engineers, etc.

In some trades it has proved increasingly difficult to complete special training when at work. The vocational school therefore has the power to continue the instruction in the trade concerned for a third school year. Such instruction aims to carry the pupil right up to full tradesman's level, and is therefore called the comprehensive workshop school. This type of school is especially associated with the costumier's trade where a complete course of school instruction has been the customary form of training. There are also comprehensive workshop schools for motor mechanics, agricultural mechanics, radio fitters, tailors, and in a few cases bricklayers.

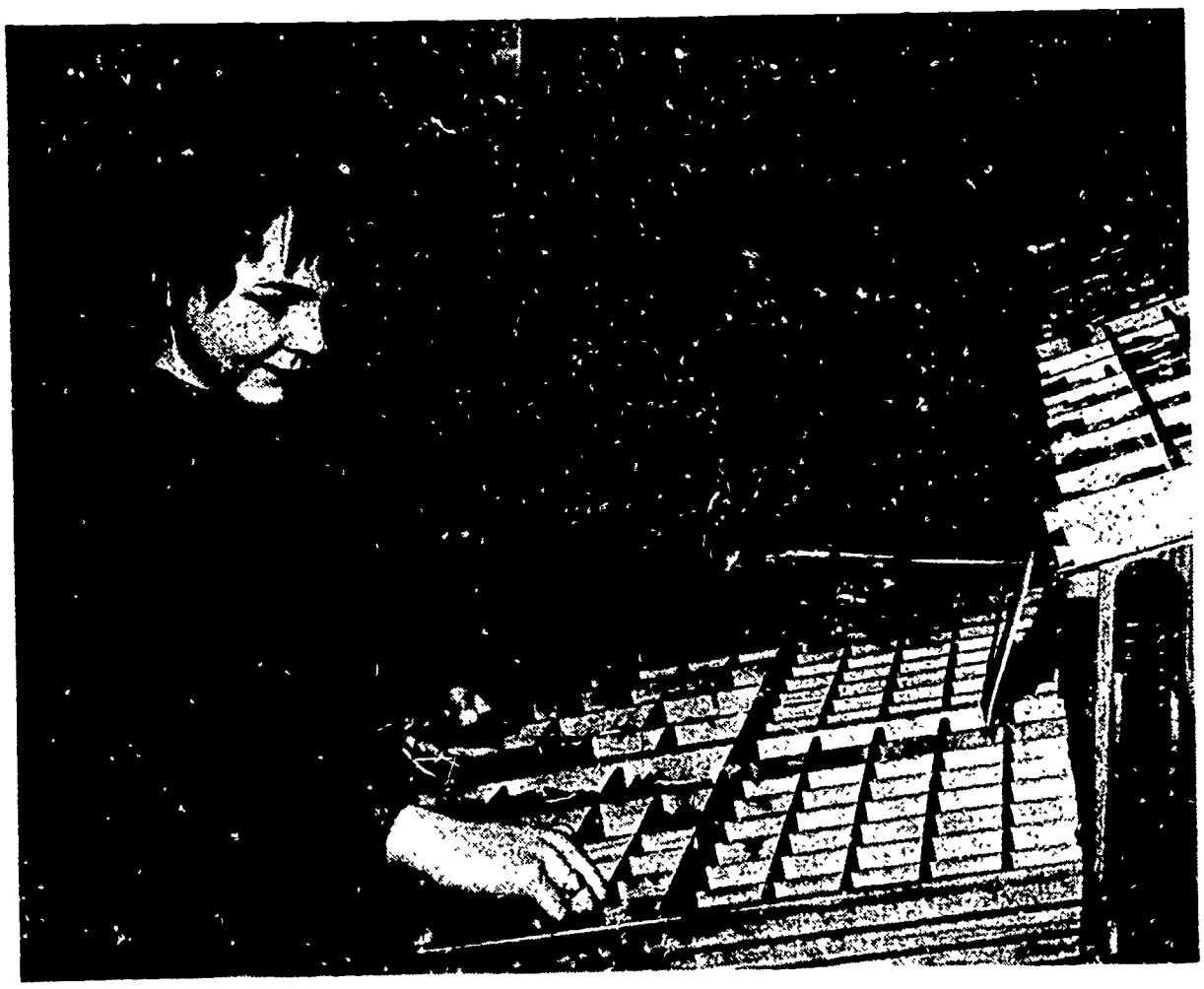
In some instances the elementary workshop school lasts for 6 months.

As has been mentioned, the instruction is based on a master-plan devised by the Ministry of Church and Education. The

plan has two variations, designated as the A-plan and the B-plan. The A-plan requires 960 hours' workshop instruction, 600 hours of theory, and 75 hours' physical training. The distribution of hours under the B-plan is, 800, 912, and 76. In the advanced workshop school the pupils do 1,200 hours of practical work, 380 hours of theory, as well as gymnastics, and in the last year of the comprehensive workshop school there are 1,480 hours of practical work and 114 hours of theory.

Special training schedules have been prepared for the separate trades. This is a project that has been launched in recent

Girls can also learn to become compositors.

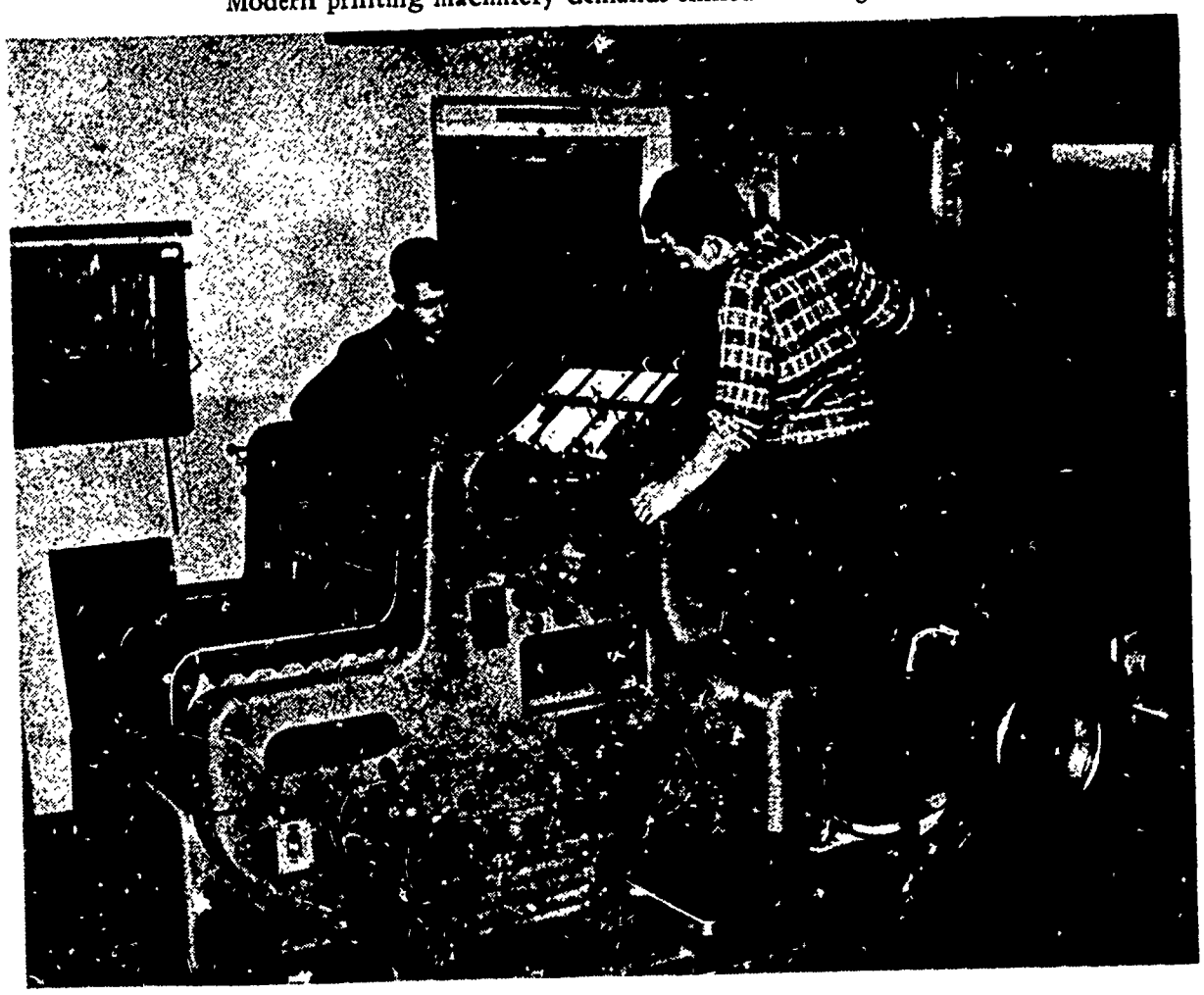


years and in 1963 schedules for 13 trades have been completed. It is proposed to lay down special schedules for all the main trades within a short time. A committee composed of representatives of the workers and skilled instructors from the various trades has been appointed to tackle this task.

Theoretical training must at present be based on the 7-year primary school curriculum, but adjustments can be made for those with a higher education than this.

Owing to the previously mentioned transformation of the 7-year school into a 9-year unified school, plans must be pre-

Modern printing machinery demands skilled handling.



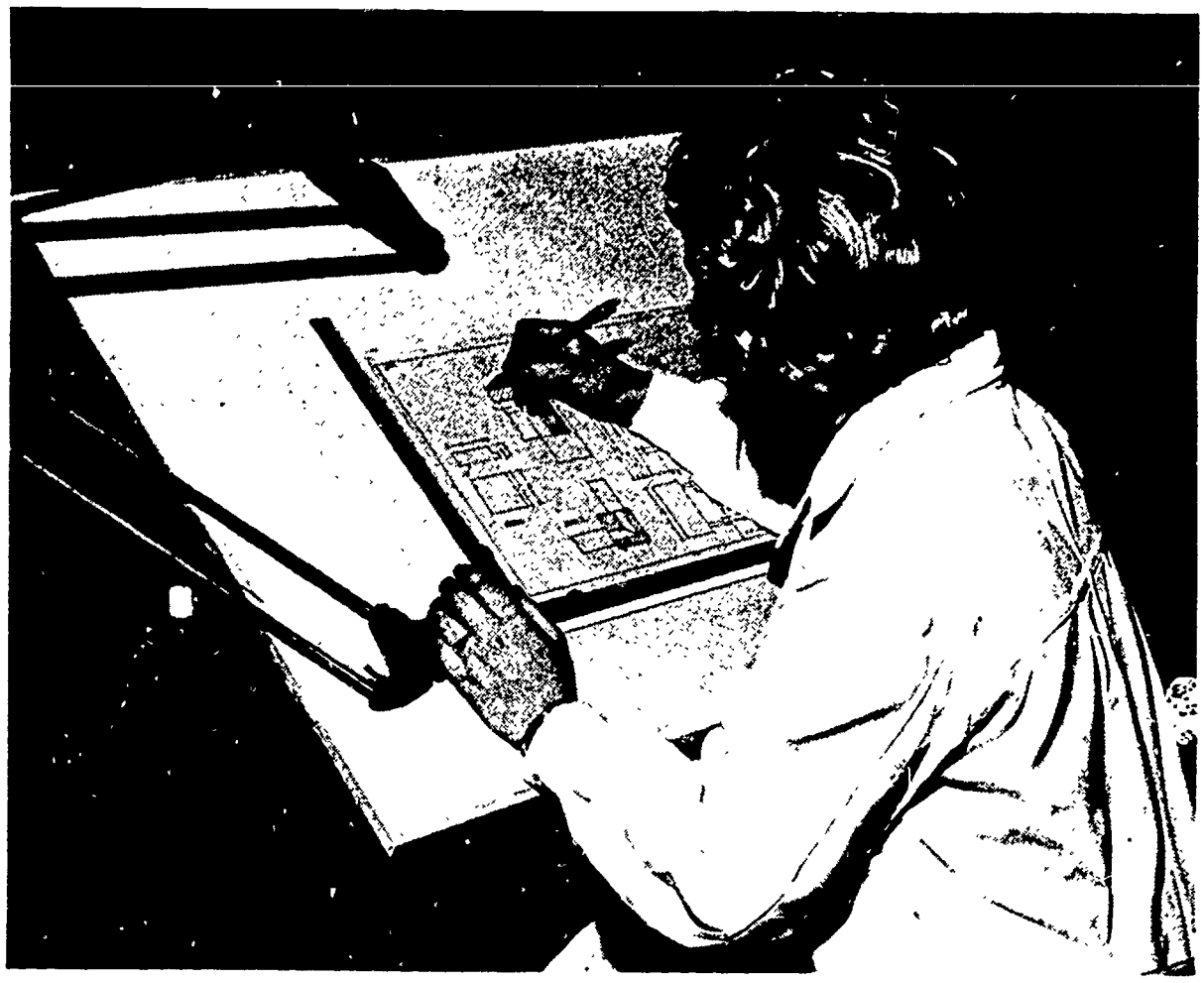
pared on this general basis. A number of trial classes have already been initiated in districts where 9-year schools have been opened.

In schools that are based on the primary and continuation schools the theory subjects are Norwegian, arithmetic, chemistry and physics, economics, vocatior al knowledge with associated drawing, language and social subjects.

When the school plan is based on the 9-year school the subjects are placed together in 2 main groups: languages and social subjects, and occupational subjects. The purpose here is to enable the instruction in each subject to be moulded to the needs of the trainee. The nature of the trade dictates how many hours should be spent, for example, on mathematics, how many on physics, drawing, and so on. This is thought to be a great advance on the old standard plan, which allotted a fixed number of hours to each subject without regard to the special requirements of each separate occupation.

Advanced Training at the Workshop Schools

The workshop schools have for a long time been offering advanced courses to supplement the regular elementary, advanced and comprehensive workshop schools. Though the schools are primarily designed for the young, highly advanced courses have been laid on for adult tradesmen, and supplementary courses for adult workers who wish to take trade tests or qualify as journeymen. In the last 3—4 years the schools have taken over another training project. Expansion in industry has led to a need for workers who have a certain technical knowledge, yet do not require the full training of a technician or an engineer. The courses have been provisionally named "Courses for technical assistants", and they offer advanced training in, for example, mechanics, physics, and tech-



Courses for technical office assistants are a popular line at the vocational schools.

nical subjects. They are usually evening courses spread over 2 years, with about 640 hours per year, and are attended by adult workers who are employed during the day.

This form of course has proved highly popular, and industrial concerns have not only shown great interest in pupils who complete these courses, but have provided support for those of their own workers who wish to attend.

A person who has completed a course for technical assistants can, at some vocational schools, continue his spare-time train-

ing at a special course for foremen and supervisors, arranged on the same principle with 640 hours per year.

A couple of schools have initiated yet another type of course of a more theoretical nature, the so-called course for technical office assistants, or assistant draughtsmen. The purpose of the course is to train tracers and designers' assistants for offices. It seems to be especially suitable for young girls.

Extra-ordinary Vocational Training

In all the years since the last war course-work of all kinds has progressed vigorously, parallel with the ordinary school enterprises within handicrafts and industry. The most common type has been the usual workshop school courses, which have been started on a more simple basis, without special school premises, almost as a trial arrangement at the various meeting places. If experience has indicated an enduring need for a school in such a locality, then an ordinary school has been established.

Minor courses are also held in subjects required for other occupations than those of handicrafts and industry. Thus a number of short courses have been initiated in dairy management, forestry, domestic science and such subjects. The development of courses for junior engineers, described under "Maritime Occupations" (p. 36) has been a feature of this scheme.

The administration of courses is the responsibility of the same authority that supervises the ordinary schools, but they receive a special grant through the State Budget which the administrators can dispense in a somewhat more elastic manner than they have power to do with the ordinary school grants. The grant has fluctuated from an initial sum of kr. 5 millions in 145 to around 2 millions per annum in the intervening years, and it has now soared to an annual sum of kr. 13 millions.

During recent years still another form of training has been introduced at the workshop schools. With the changes in economic life comes inevitable shuffling of adult workers. In order to ease transition to new work, a number of short courses have been opened for older people, that is people over apprentice age (15—20 years). The courses are of 3—5 months' duration, and provide an introduction to a trade, or training in a branch of a trade. Those who attend the courses are for the most part unemployed persons putting their idle period to the best use by qualifying for a new job. They receive unemployment pay during their attendance and also other support to enable them to undergo training. The courses are financed by State funds that are earmarked for the advancement of employment and the checking of unemployment. This grant is administered by the Directorate of Labour, whereas the other schools are financed by the municipalities or counties, which are subsidized through the budget of the Ministry of Church and Education. The expert management of the adult training courses is nevertheless the task of the same bodies that administer the ordinary courses of the trade schools. It appears, however, that the schools do not always have the capacity to cope with both the ordinary workshop training of the young and the adult training courses. For this reason a number of special premises have been built for the adult courses, partly as annexes to vocational schools, but in some cases independent. There are at present five of last-named premises. With the co-operation of industrial experts, specific plans have been drawn up for the adult training courses, both as regards theory and practice. The plan for practical work has been devised in such a way that the pupil can first complete a section of the curriculum, then find work, and later come back and complete another section, or finish the whole course of training. Special progress forms have been prepared on

Those whose employment is irregular seek better security by attending special courses.

which the various subjects can be crossed off as soon as the corresponding section of the course has been completed.

This kind of course for adults was begun in 1958-9 with about 1,300 participants, and by 1962-3 the number had risen to 3,200.

Instructors and teachers on this type of course need special qualifications, and a special course for them has been started. Adult training is regarded as a necessary and fitting supplement to the ordinary trade training at the vocational schools.

The other main type of vocational school is designated by law as a school that provides training during the time of apprenticeship. As will be seen from the account of the Apprentices' Act below all apprentices are required to attend apprentice schools during their apprentice period if they have not completed the full theory course at a workshop school before entering on their apprenticeship. In other words the apprentice school is a part-time school designed for young

Instruction in the iron and metal trades.

persons who go straight from general school to work. The curriculum is the same as that described for workshop schools as regards theory, but it is divided over 3 years, with about 300 hours per year. Young persons who have completed *realskole* or the 9-year unified school pass directly into the second class. Those who have attended workshop school with theoretical training according to the A-plan, must complete one year (i.e. 3 years) at an apprentice school when they enter their apprenticeship.

For many years the apprentice school has consisted of evening classes of 2 hours daily for 5 days a week. This has proved an unsatisfactory arrangement, both for the firms which are expected to allow the apprentices corresponding hours off work, and for the youngsters themselves, who are tied to school every evening. Efforts are therefore being made to substitute one full day per week over 40 weeks for the present hours. In this way the number of hours of study is almost equivalent and the standard of instruction higher. This change has already been made where practically possible, that is where skilled instructors, suitable premises, etc. are available. For skilled instruction in the most important subjects these schools draw on specialists from the businesses and factories. In some subjects the apprentice courses are concentrated into continuous courses running for 6 weeks, 8 weeks, or up to 3 months each year.

This especially applies to trades in which the pupils, besides theoretical training, receive supplementary practical training at the apprentice schools. These courses are known as practical apprentice courses, and they have been most commonly applied in the graphic trade. Discussions are in progress—and indeed trials are being carried out—to decide whether continuous apprentice courses of this nature should be introduced in all trades where it is feasible, and it seems probable that this will be the form of apprentice school in years to come.

A special problem is connected with apprentice schools in

small places. To qualify for a State grant a class must have a minimum of 10 pupils. As has been observed, each trade has its special occupational training requirements, and in small places there will not be enough pupils to form classes for the separate subjects. In order to make a beginning, combined classes must be arranged wherein pupils of several trades meet together. The instructor cannot be expected to be expert in several trades, and thus the instruction of many pupils will be inadequate.

Several solutions to these problems have been tried. The pupils have taken correspondence courses in their chosen trade and have gone through them in class under the guidance of the teacher. If specialists have been available and it is a matter of a group of, say, 3—4 pupils, the school has arranged special hours for occupational study. But pupils have often had to spend these hours puzzling over their textbooks without help.

A satisfactory solution is available through reorganization into continuous courses similar to those mentioned above. When the year's curriculum is concentrated into a 6-week day course it will be easier to send the apprentices to the nearest school-centre with special classes for the trade concerned.

This system again depends on the possibility of acquiring the services of skilled full-time instructors. At first apprentice schools were separate institutions, but gradually, with their expansion, the workshop schools have taken over the essential apprentice instruction. They already possess skilled teachers in the same subjects in the workshop schools, and when the apprentice classes are added full-time teachers' posts can be established. The trend is thus towards full co-ordination of workshop schools and apprentice schools under a single administration.

Besides the ordinary apprentice courses and practical schools, courses are also held at the same schools for adult tradesmen (journeymen) who wish to qualify for a handicrafts certifi-

cate. As mentioned, these need an adequate knowledge of book-keeping and cost-accounting, and they can attend evening classes for one year in these subjects as well as in legal subjects relevant to workers.

The number of pupils in the classes is limited both at workshop schools and apprentice schools. The maximum number permitted in the practical classes is 15, in the theoretical 30. The numbers in the practical classes are at present below the legal limit. Twelve pupils to a class is quite usual, and in the more difficult trades sometimes as few as 8 are attending.

In 1963 around 75 apprentice schools are operating. Two of them are run by a business or an organization, the other by municipalities or counties. The total has decreased by one quarter in the course of a few years as the workshop schools have expanded, and it seems highly probable that in the comparatively near future these schools will be entirely absorbed by the workshop schools.

Schools and Courses after Apprenticeship

There are not many independent schools of this type in Norway. As has been made clear above, the workshop schools and the apprentice schools have opened a number of advanced courses for journeymen and tradesmen, and it seems likely that this trend will persist.

One independent institute holds only these advanced courses, the Norwegian Government Institute of Technology. The aim of this State institute is to keep up to date with and test new working methods and material and then by means of short courses to pass on the fruits of their research to tradesmen and other persons engaged in industry. The institute has departments for building technique and joinery, iron- and metal-

work, automobile engineering and foundry-work, for chem-

istry and painting, and for electricians, dressmakers, meat-producers, and bakers. The various departments carry out research, hold courses, and act as consultants and advisers to business concerns.

The institute arranges technical courses in Oslo, and other parts of the country are similarly served through travelling instructors, with courses in motor repairs, new methods of welding, treatment of steel and metals, wood surface treatment, galavanizing technique, in fact all subjects that come within the institute's sphere of activity.

Besides these purely technical departments, the institute has a personnel department for the training of managing staff, and a rationalization department with courses in time- and work-studies, instruction according to the T.W.I. system and so on.

The institute is a centre of advanced trade training, and also gives aid advice in the matter of advanced training at the workshop schools.

Besides this institute there is a special school for foremen in workshop industries. This provides not only training in management discipline, but also advanced instruction in practical subjects, and the course therefore lasts a whole school year. It is also based on a completed trade training.

There is a one-year course for mining-captains at a school known as the State Mining School. As there is no organized vocational training of miners in Norway, pupils at the Mining School must have had at least 3 years' previous practical experience, with *realskole* level as a basis. The minimum age of entry is 22 years.

The Norwegian school of forestry can also be included in the group of post-apprenticeship schools, even though there is no general apprentice training in saw-mills and planing-mills. The school offers a one-year course in lumbering technique and trains assistant managers and managers of lumbering firms, saw-mills, and planing-mills. There are also shorter

courses available for master sawyers etc. The pupils are over 20 years old, with practical experience in the trade in question.

Norway's Cannery School is run on the same lines, and trains managing staff and tradesmen in the canning industry. This school is administered by the canneries themselves.

An important part in post-apprenticeship schooling is played by 2 schools which are known as art and handicraft schools. One of these is owned by the State.

These schools started as schools of advanced design for craftsmen who had completed their training in their branch, and wished to design their own products. The function of designing has gradually passed to specialists, and the school has thereby undergone a change while the demand for industrial designers has increased, and lines have been arranged for them.

The art and handicraft industrial schools now train industrial designers in 7 sections; building design, painting, furniture- and interior designing, textile design and fashion design, metal and enamel design, book design and advertisement design.

The training opens with a beginners' course which is attended by pupils from all branches, and where free-hand drawing is the central subject. This is followed by a 2-year course of specialized instruction, and the training can be completed by a fourth year of arts and crafts, in which the pupil amongst other things can work on a special task for a diploma.

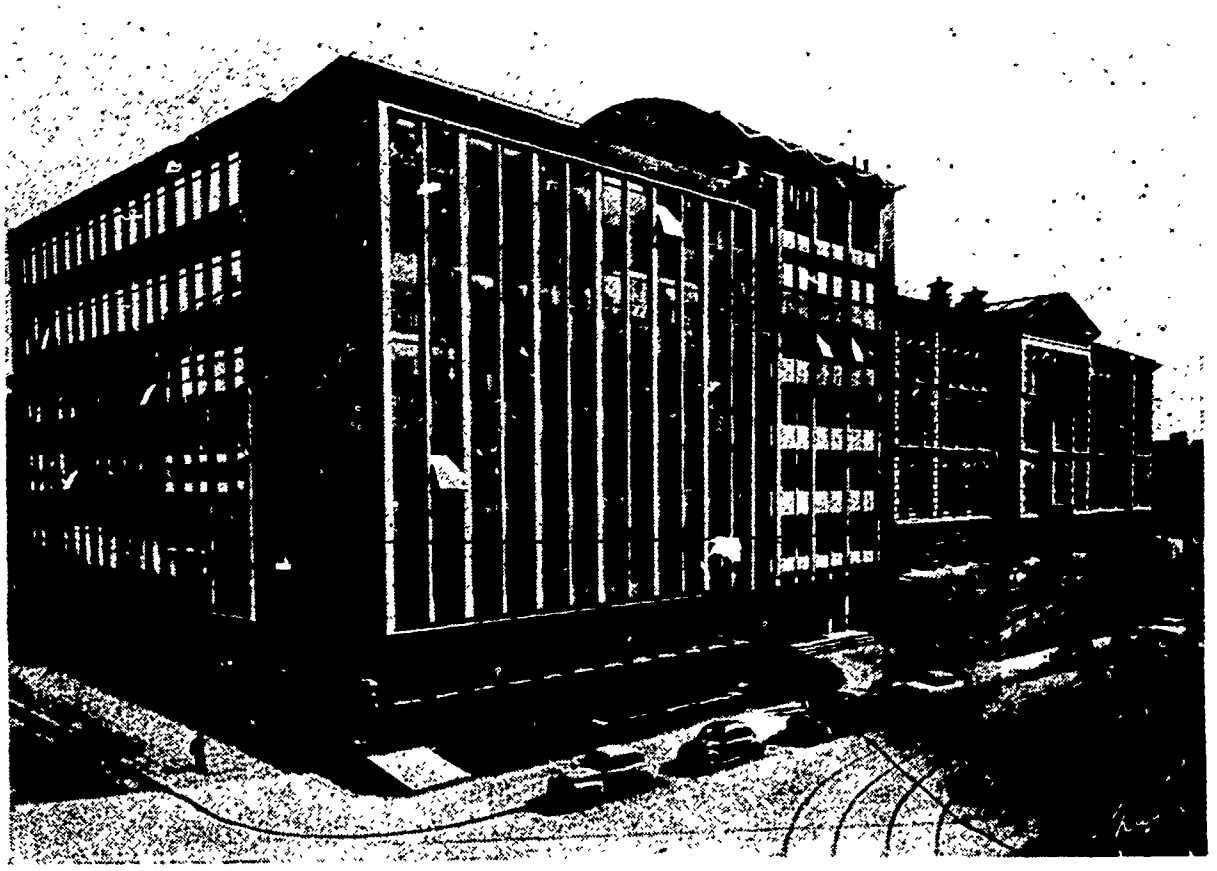
Applicants for entry must be 18 years old, and must have passed the *realskole* or an equivalent examination. As a rule some practical experience in the subject to be studied is desirable. The school has its own workshops for experimental and laboratory work.

Schools that Give Technical and General Training

Three types of schools fall within this group.

Elementary technical schools, of which theere are only 2 in the whole country, are designed to help workers in industrial and other plants who have not served an ordinary apprenticeship, but who need technical ability in order to be able to perform their work. The courses were previously of 8 months' duration, but now continue for 10 months with full daily instruction. The basic curriculum corresponds to that of the apprentice school, but in the main subjects, which vary according to the branch, the instruction is carried much farther. It is

Two generations meet. The new Technical College in Oslo is annexed to the old.



The laboratory is the heart of a technical college. This is the electrolaboratory.

based only on primary school knowledge. The special lines teach techniques in construction, house-building, engineering, tel.. .aphs and telephone engineering, heavy current engineering, and at one school, watchmaking. The last-named is essentially a supplementary course for adult watchmakers who wish to take a journeman's examination. Instruction in practical work is given here, whereas in the purely technical lines there is only laboratory practice.

The regulations lay down the age of entry as 16, but in practice the average age of entrants is well over 20 years.

The organization of these schools is undergoing alterations, and the nature of the instruction is probably changing. One of the schools has initiated the courses for technical assistants and office assistants that were described under "Workshop Schools" and this type of course attracts more pupils than any other. There is also a course for technical office assistants or designing assistants.

Technical trade schools, of which there are altogether 4 in the country, hold courses of 2 years' duration with combined theoretical and practical instruction. The theoretical instruction is formally based on primary school education, but in fact somewhat more advanced knowledge seems desirable. The school sets an entrance examination which has the effect of raising the standard of beginners. Though the minimum age is 16, most entrants are nearer 20 years of age.

Technical training is available in the following subjects: electro-technique, engineering, lumbering, automobile engineering. At one of the schools an extra year may be devoted to power station work and installation.

The instruction programme of the technical trade schools is under consideration, and two of these schools will probably be reorganized as technical schools. It has not been decided whether they will at the same time be able to continue the present training in a modified form. This type of school is one of the old vocational schools for handicrafts and industry. For over 100 years it has satisfied a great need, but, as has been observed, it seems to have fallen somewhat out of step with the general development. Hitherto the purpose of the schools has been the training of fitters, engineers, foremen of works and other foremen etc.

The technical schools are designed to train men for intermediate and senior technical positions in all industries and in

public administration. These schools are also undergoing radical changes. For many years they have been 2-year theoretical schools, based on *realskole* or equivalent level, and requiring 2 years' practical experience before entry. There have been 6 schools of this type, with around 500 new pupils each year.

In the wake of technical progress follow new demands for training and capacity for training. A committee composed of representatives from industrial management, with a prominent industrialist in the chair, has undertaken a complete reorganization of the training of technical personnel. As a result of this work, most of the technical schools have now been transformed to 3-year schools with an extended and modernized curriculum. At the same the requirement for previous experience has been reduced to one year. Pupils who pass the examination at these 3-year schools receive the title of engineer. They are also entitled to apply for entry to the Technical University of Norway without the entrance examination which is otherwise compulsory at this institution.

During recent years many of these schools have acquired modern premises and fine laboratory equipment; a common curriculum and uniform textbooks are now being prepared.

At the same time the need for a greatly increased capacity is borne in mind, the provisional target being about 2,500 new pupils per year. The 6 schools that are in operation are spread over different parts of the country, but they obviously cover only a small portion of the vast geographical area. Expansion projects recognize the need for new schools and school centres, and in 1963 work on 3 new schools has already begun. Further, plans for 3 additional school centres have been approved.

The most important lines at the technical schools are: electro-technics, high tension current, minimum current and radio, engineering, chemistry, house-building and general construction technique, heating and sanitation technique, management technique and metallurgy. At 2 schools there is a supple-

mentary one-year course in management technique for pupils who have taken another line first. At one school there is a corresponding one-year course for shipbuilding and wood conversion.

Administration of the Vocational Schools for Handicrafts and Industry and of the Technical Schools

All the schools that have been mentioned under the heading "Training in handicrafts and industry" are administered by the Ministry of Church and Education. The Ministry has a special department for vocational training which is at present divided into 4 sections. One deals with the ordinary training schools for handicrafts and industry, one with the technical schools, one supervises domestic science schools, and the fourth organizes industrial training for apprentices and schools for commercial and office work. It is the first two of these that are of interest in this connection.

To afford assistance to the Ministry in the shape of counsel and initiative in respect of vocational training and supervision of schools, a committee has been appointed by the Crown which is called National Vocational Training Council for Handicrafts and Industry. It has 15 members as well as liaison men from other Ministries. Six members are appointed on the recommendation of the Employers' Federation and the employees' associations, 2 at the request of the labour supervisors' organizations, and the remainder come from vocational schools and various fields of research.

The chairman and vice-chairman are nominees of the Ministry and all members serve on the council for 4 years.

The Ministry's vocational training section acts as secretariat to the council, which selects a small working committee which meets regularly.

In order to assist the council special committees have also

been appointed which devote their work in the one case to the workshop schools, and the apprentice schools, and in the other to the technical schools. These committees are each composed of 4 members who should have special knowledge of the type of school concerned. In order to ensure close liaison a member of the Council presides over each committee.

A council of this nature, though of a somewhat varying character, has existed in Norway for over 30 years. It came into being because the vocational and technical schools instruct youth with a direct eye to this branch of economic life. Therefore industrial and handicraft concerns should themselves join in the effort to ensure that the instruction offered fits in with the demands made on the employees of industry and handicrafts.

Efforts have also been made to further this co-operation on a local basis. Vocational and technical schools are administered by boards of the municipal or county schools. From 1 January 1964 most of them come under county school boards. The board of the county school or of the municipal school appoints a special committee for the separate schools, or types of school. Members of these committees shall include representatives from the practical trades, in the same manner as the Vocational Training Council.

Besides the above, each department of the vocational training schools shall have a special committee of 3 members. One shall be appointed through the Employers' Federation, one through the employees' association, and the third on the recommendation of the school board. The intention here is that those who work daily in the trade concerned shall be in a position to counsel the instructors at the vocational school, and to make sure that the instruction is satisfying the requirements of the work.

Thus contact between the school and the job is an all-important aspect of the administration of vocational schools.

Teachers in Vocational Schools for Handicraft and Industry

The clear-cut trade content of the work at these schools makes it necessary that the instructors must be experts in the trade which they teach. Instructors at vocational training schools must therefore be fully qualified, and possess either journeymen's certificates or trade certificates. In addition, they must have training in teaching. This they can receive in two ways at present. At the State school for vocational training instructors there are 6-month full day courses in teaching. State courses for teachers at workshop schools give one-year teachers' courses, with a 4-week summer course, a correspondence course with week-end rallies during the winter, and finally another 4-week course the following summer. The curricula of both courses are somewhat similar, but it appears that the part-time course is more convenient than the 6-month continuous course. Those who embark on work as instructors without teachers' training are required to attend teachers' courses before their appointments are confirmed.

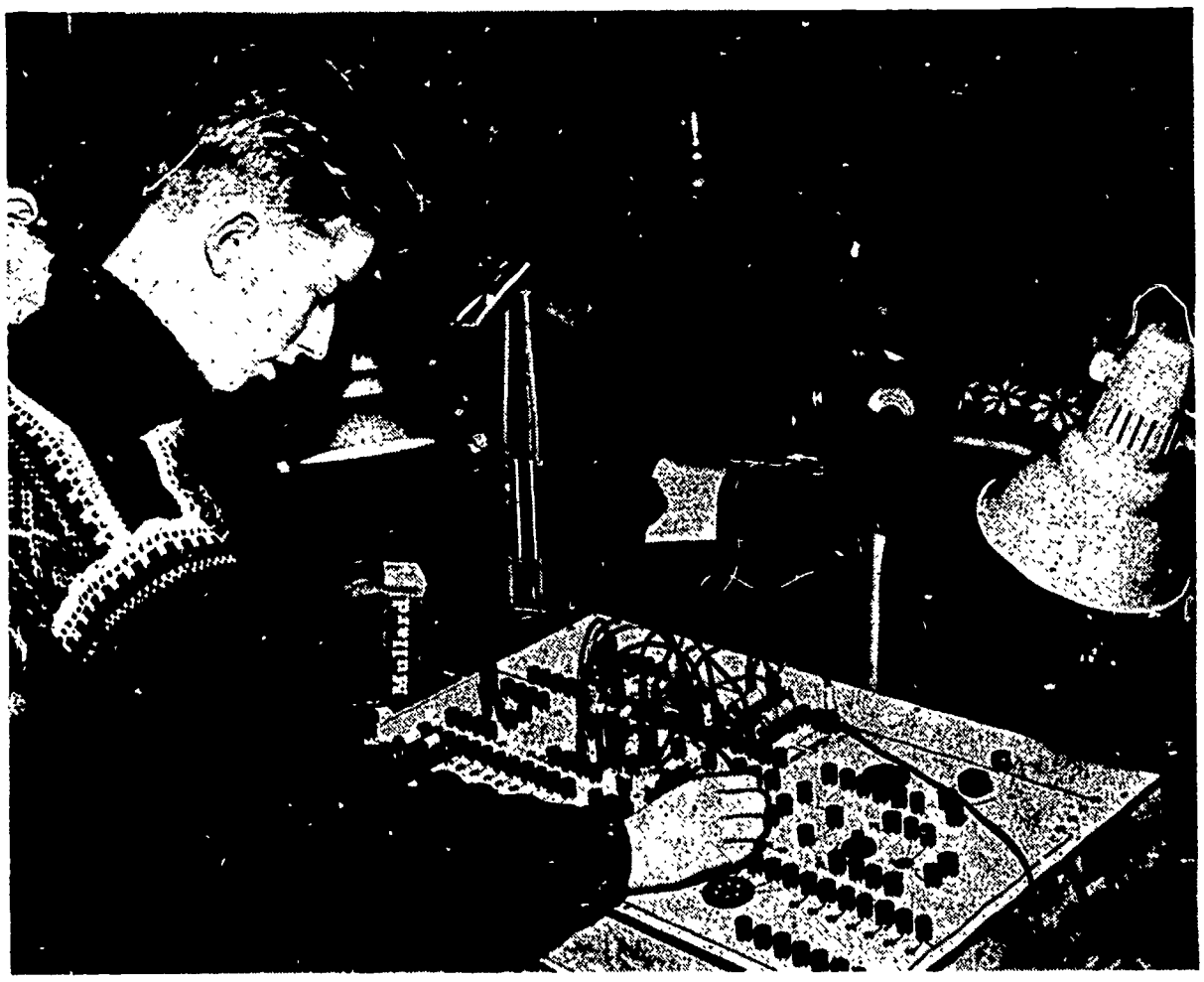
ADVANCED TRAINING WITHIN HANDICRAFTS, INDUSTRY, COMMERCE AND CLERICAL WORK

A young person who has attended an elementary workshop school for a year is obviously not fully trained in the trade. Even if the pupil continues at an advanced workshop school, and thus puts in two years at school, he or she will not be in a position to carry out skilled work without supervision. More training in the trade is necessary, and in most cases this is available only at the appropriate place of work. Some trades are

still not catered for by workshop schools, and in these the only method of training is practical work on the spot.

Instruction of this kind has been given in the trades where training is necessary as long as the trade has existed, and society has gradually become more interested in this aspect of vocational training. The first in the picture were the handicrafts, with their organization modelled on the medieval guilds. The guilds had strict rules providing for the training of young beginners. When the guilds were dissolved in Norway during

Weak current engineering is a trade of the future.



the first half of the nineteenth century, there followed a short period without restrictions on the conduct of occupations, but in the latter half of the nineteenth century legislation was introduced, and today an Act of 1913 respecting handicrafts is still valid law. It lays down clearly that which is required of pliers of what the Act designates as handicraft trades, and confers certain rights on those who fulfil these requirements. The Act also contains provisions regarding the training of young beginners in the trade. A written contract with the apprentice master in respect of satisfactory training over a period of 3–5 years, shall be drawn up, and the pupil shall be admitted to a trade test, the journeyman's test, when his apprenticeship is completed. The training in this field has also been regulated by law since 1913.

Industry, a more recent arrival on the scene, had no corresponding regulations until 1950, but the economic organizations were nevertheless aware of the importance of a fixed pattern of training, and from the 1920s agreements between the organizations included certain provisions regarding industrial training and recognition of qualified tradesmen. Around 1920 the commercial organizations also made demands for a systematic commercial training of youth.

As a result of these various efforts, a special Act was passed in 1950 regarding the training of young persons for a working life. The Act was called the Act respecting apprentices in handicrafts, industry, commerce, and clerical work.

The Apprentice Act

The main provisions of the Act can be summarized thus:

All young persons between the ages of 15 and 20 who enter upon a trade that is regulated by the Act in a place where the Act is valid shall become apprentices and shall be parties to a written contract in respect of training drawn up between

themselves and the apprentice master or company from which they receive training. The apprentice shall be given instruction as prescribed in a training scheme designed for the trade in the course of a term of apprenticeship of a duration also prescribed for the trade. If there is an established trade test in the trade concerned, it is compulsory that this test shall be undergone at the conclusion of the apprenticeship.

In order to acquire the theoretical knowledge necessary for the trade, the apprentice shall attend an apprentice school during his apprenticeship, if he has not acquired this knowledge previously, for example, at a workshop school. Working hours in the firm together with school hours must not exceed the working hours fixed for adults engaged in the trade; in other words the apprentice must be allowed free time by the firm in order that he may attend school, without reduction of wages.

The Act makes the firm responsible for the adequate training of the apprentice and for the passing of his trade test, on the understanding that the apprentice does his best to learn as much as possible.

The Act also provides for public supervision of training within the firms, and contains a set of minor regulations in support of the principal provisions. It has created a pattern for training in other occupations, and therefore will be discussed in some detail.

The Act is not valid throughout the whole country. It corresponds closely to the above-mentioned Handicrafts Act of 1913, which only covered 102 out of 744 municipalities. In 1963 the Apprentice Act is in force in 128 municipalities or parts of the same, including all townships and cities. In the meantime the municipal boundaries in Norway have been radically revised. Small municipalities have been absorbed into large units, so that the total of municipalities on 1 January 1964 has been reduced to 525. The figures still fail to give a

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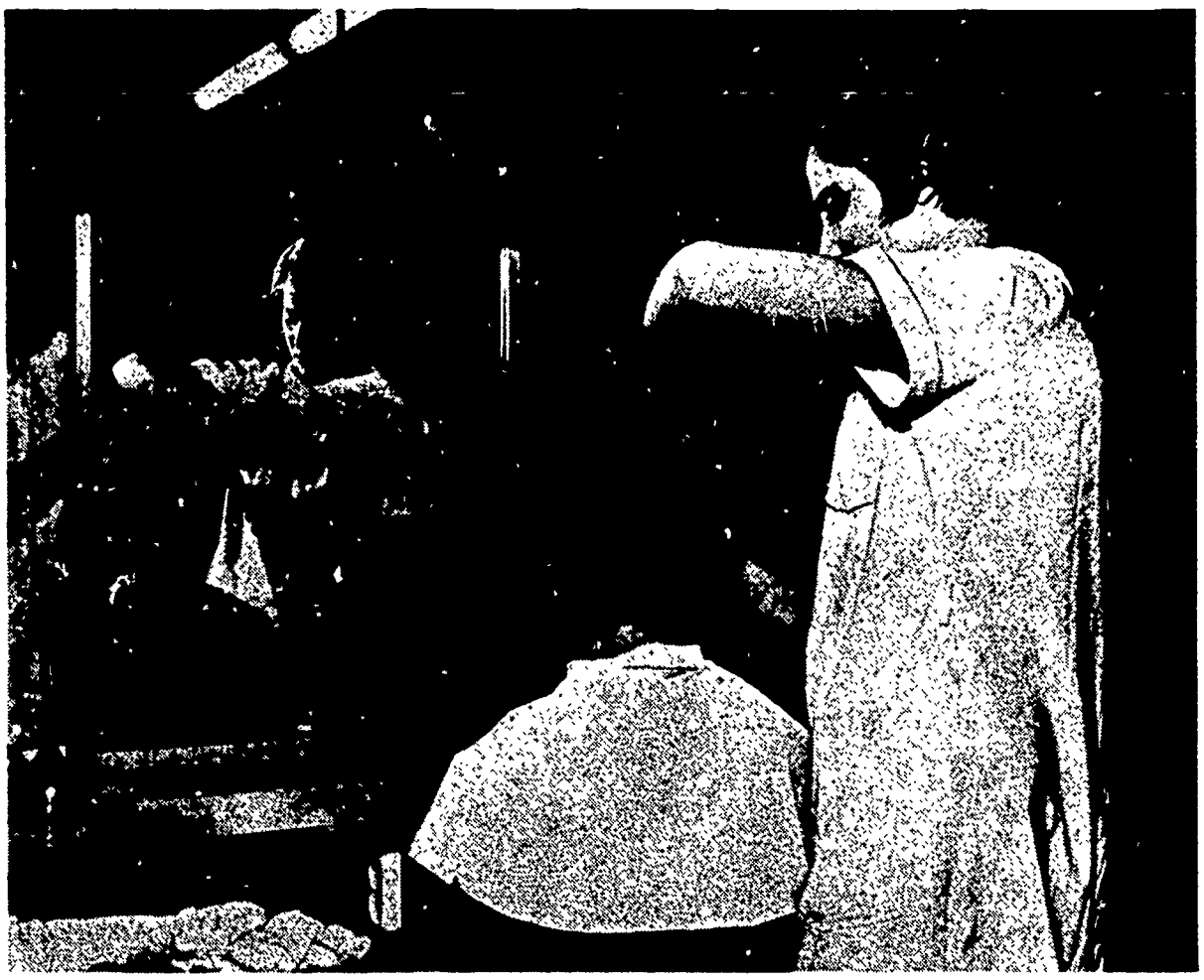


Ladies' hairdressing is a popular trade among girls.

correct impression of the area covered by the Apprentice Act, because in the 128 municipalities where it is valid half of the population live in the country. It is furthermore laid down that the Crown can extend jurisdiction of the Act to new municipalities; this step, moreover, is taken, so that the area of the jurisdiction of the Act steadily expands. In such cases the municipal board first pronounces its opinion.

There is another restriction on the operation of the Act. It must be established by Royal Decree that the Act shall apply

to the specially designated trade. When the Act came into force in 1951 it had no practical relevance. Not until 6 handicraft trades were named as subject to the Act in 1952 did its various provisions come into effect. Since then new trades have gradually been absorbed, and in 1963 the Act covers the trades of the following:

Handicrafts and Related Trades

Trade designation	Date of Act	Years of Apprenticeship
Baker	1/3-55	3½
Surgical appliance maker[1]	1/3-55	4½
Bookbinder	1/8-57	4
Bookbinder's assistant[2]	1/8-57	3
Printer	1/9-56	4
Furrier	1/9-56	4
Paperhanger	1/1-58	4
Boxmaker	1/7-61	4
Ladies' Hairdresser	10/8-55	4
Turner (Wood turner)	1/7-58	4
Photogravurist[1]	1/3-55	4
Sweep	1/10-52	3
Photographer	1/3-55	4
Dyer and Cleaner	1/9-56	4
Glass polisher and silverer	1/9-56	4
Glazier	1/9-56	4
Goldsmith	1/10-53	4
Men's hairdresser	10/8-55	4
Wheelright, coachmaker	1/9-56	4
Instrument maker		
surgical	1/3-55	4½
mathematical and geodetic	1/9-56	4½
nautical	1/9-56	4½
optical	1/9-56	4½

Trade designation	Date of Act	Years of Apprenticeship
Insulator[1]	1/3-55	4
Dressmaker, costumier	1/10-52	4
Confectioner	1/3-55	3½
Copper- and tinsmith	1/10-52	4
Plasterer	1/11-59	4
Basketmaker	1/10-53	4
Lithographer	1/10-53	4
Painter	1/3-55	4
Milliner[1]	10/8-55	4
Bricklayer, mason	1/10-52	4
Upholsterer	1/8-57	4
Fancy leather goods maker	1/8-57	4
Sausagemaker	1/10-53	4
Reproducer	1/3-55	4
Plumber	1/3-55	4
Saddler	1/8-57	4
Shoemaker	1/10-53	3½
Shoe repairer[3]	1/11-59	2½
Tailor	1/10-52	4
Trouser-, waistcoat- and shirtmaker[3]	1/10-52	2
Butcher	1/10-52	2
Blacksmith	1/8-57	4
Carpenter, joiner	1/3-55	4
Stonecutter		
Stonemason	1/1-58	3
Paving-stone cutter[1]	1/1-58	2
Pavior[1]	1/1-58	2
Stone polisher[1]	1/1-58	2
Dental technician	1/10-52	5
Wood-carver	1/7-58	4
Lumberman	1/7-61	4

Trade designation	Date of Act	Years of Apprenticeship
Watchmaker	1/9-56	5
Engraver	1/1-62	4

[1] The trade is not subject to the Handicrafts Act.

[2] At the termination of apprenticeship the firm issues an apprentice's certificate without a trade test.

[3] The training is concluded by a trade test, but the handicraft certificate is only attained after a complete journeyman's trade test.

Industrial Trades

Industrial metal trades under the Act of 1.10.1953:

Apprenticeship 4 years; for apprentices accepted after reaching 19 years of age—3 years. The trades are divided into 12 groups:

1. *Mechanics*, filers, toolmakers, diemakers, machine repairers, machine fitters.
2. *Machine operators*, turners, planers, milling cutters, grinders, drillers, toolgrinders.
3. *Sheet-metal workers*, frame-moulders, markers, boilersmiths, steel construction workers.
4. Riveters and caulkers.
5. Welders (electro- and autogenous welders).
6. Smiths.
7. Coil winders for engines, generators, transformers. Transformer fitters.
8. Moulders, handmoulders, core makers.
9. Pattern makers.
10. Tinsmiths and coppersmiths.
11. Joiners (from 1.10.1960).
12. Plumbers (from 1.10.1960).

Motor mechanics: according to the Act of 1.7.1957. Apprenticeship, 4 years.
Electricians: according to the Act of 1.7.1957. Apprenticeship, 4 years.
Radio fitters: according to the Act of 1.8.1957. Apprenticeship, 4 years.
Adjusting mechanic: according to the Act of 1.11.1959. Apprenticeship, 4 years.
Commercial and clerical work according to the Act of 1.1.1961. Apprenticeship, 4 years.
Industrial workshop work outside the iron industry according to the Act of 1.1.1962. Apprenticeship, 4 years.
Electromotor- and transformer repairs according to the Act of 1.1.1963. Apprenticeship, 4 years.

The procedure whereby the separate trades are subjected to law is based on the presupposition in the Act that there shall exist for each trade a training scheme drawn up by the Ministry. The Ministry shall also prescribe the length of the term of apprenticeship in each trade, and if a trade-test concludes this term, the form of the test.

Proposal for such schemes and tests are studied by special committees appointed by the Ministry for each trade or groups of trades. These committees are called National Occupations Committees, and consist of at least 4 members. Half of them shall be proposed by the employers' organizations and half by those of the employees. In special cases public institutions can also nominate representatives, but the balance must nevertheless be retained.

The expenses of the committees are defrayed from public funds. Committees that handle several trades usually have more representatives. Thus a joint committee for what is called the iron industry trades has 14 members, 7 employers and 7 employees.

When the committees have agreed on proposals for the length of the term of apprenticeship, training schemes and trade tests, these are deliberated by a central body known as the Apprentice Council. This council has a parallel in the Vocational Training Council for schools, but it has only 10 members. The chairman is appointed by the Crown on the recommendation of the Ministry, the remaining members by the organizations of the trades. Four represent the employers, 4 the employees, and one the foremen. The Council as the name suggests, is primarily an advisory body to the Ministry of Church and Education, but at the same time it has decisive authority in trade matters.

The Apprentice Act and the Co-operation with the Trades Organizations

The purpose of the provisions described above is primarily to ensure systematic and as far as possible uniform training in the different trades throughout the country. The schemes operate as a sort of curriculum for the firms' handling of their apprentices, even though much attention has been paid to the fact that each firm has its own production and methods of production.

The other main purpose is that the firms themselves shall adapt the regulations that must be observed. It is they who know what goes on from day to day and can best judge the degree to which the above-mentioned uniformity of training is feasible. The Act sets, of course, certain limitations. For example, the term of apprenticeship shall only in certain cases exceed 4 years, and shall never be longer than 5 years. The committees, however, are free to put forward proposals.

Other General Provisions of The Apprentice Act.
School Attendance

Besides the trade training schemes there are a number of general social provisions. The most important, and one which affects the training itself, is the provision that all apprentices shall in the course of their apprenticeship attend apprentice school and receive the necessary theoretical instruction to supplement their practical training. As mentioned under the section on Apprentice Schools (p. 60) the apprentice's hours of work and at school shall not together exceed the number of

Butchers' and sausage-makers' apprentices of both sexes attend school.

working hours of the adult workers in the trade. The apprentice shall therefore be allowed free time with pay so that he can attend school. He cannot choose whether he shall go to school or not. If he omits to do so the firm has the right to terminate his apprentice's contract, and if he plays truant for some hours or days he is liable to forfeiture of wages. This obligation, however, applies only if there is a school in the neighbourhood, that is, so near the place of work that the pupil can make his way to the school in reasonable time. In areas that are deficient in such schools, the firms must provide the apprentice with at least enough theoretical training to enable him to pass his trade test.

If an apprentice has attended a workshop school before entering his apprenticeship, he will have taken the apprentice schoolcurriculum or parts thereof.

Reductions of the period of apprenticeship are also governed by the general provisions. The Ministry decides the amount of time to be deducted when an apprentice has attended a vocational school before entering on his apprenticeship. The most usual reduction after one year at a trade school is 14 months. After a 2-year school course 26 months are usually deducted, after attendance at a school for a trade akin to that in which the apprentice is to engage, 6 months are deducted, or more if the firm consider it justifiable. The firm can also make a reduction for practical experience gained previously by the apprentice, for example, if the firm lies outside the jurisdiction of the Act. In such cases, however, the reductions are also surveyed by the supervisory body known as the Apprentice Council.

A book-binder's apprentice at work (from a workshop school).

Social Provisions

The Apprentice Act contains no provisions regarding how wages shall be fixed. The question is left to the labour organizations, but if the wages agreement of the organizations does not apply to the firm concerned the wages must be at least equal to those laid down in the agreement.

The apprentice shall have holidays like the other wage-earners, and this again is provided for in a special Act, the Holidays Act. According to the provisions of the Act young

apprentices can be granted longer holidays than adults, but hitherto this stipulation has not been put into practice.

An apprentice shall receive full pay for as much as 3 months in the year during illness, provided that the illness is not caused by his own negligence. Finally, the apprentice shall receive pay while undergoing his trade test, of which all expenses shall be defrayed by the firm. It is also the firm's responsibility to enter the apprentice for the test, to arrange the venue, and to provide materials etc.

The Trade Test

As mentioned above, the trade test is compulsory in all trades in which tests are prescribed. The test is adjudged by a panel of 3, the test panel for the trade concerned. Two of the members are proposed by the trade organizations, one an employer and one an employee. The third member is appointed without special proposal.

The municipal authority appoints the test panel at the place concerned; but several municipalities can well share the same panel, and the municipal authority can refer an apprentice to a panel in another municipality. The home municipality is liable for the expenses resulting from such a referral.

Supervision and Approval of Firms that Train Apprentices

The Apprentice Act provides for public supervision of the training of young persons in the firms. The Apprentice Council ensures that the provisions are recognized, and offers guidance. Under some circumstances it can intervene. However, the real supervision is arranged at a local level. In all municipalities within the jurisdiction of the Act, the local

authority shall appoint a committee, now called the Apprentice Council. The number of members is not specified, but employers and employees shall be equally represented, and shall be appointed on the recommendation of the local trades organizations or possibly by the chief national organizations. Further, the vocational schools in the locality shall nominate one representative, and the labour board, or in other words the employment organization, shall propose one member. The usual complement is thus 6 members. In large towns there can be one special committee for handicrafts and one for industry. In three municipalities a system of this kind obtains. Further, several municipalities have special committees for commerce and office work. The Labour Exchange is supposed to have a record of apprentices and therefore often functions as a secre-

The bricklayer's apprentice has finished at the workshop school, and continues his training at his work place, while he learns his theory in the evenings at the apprentice school.

tariat to the committees. Its task includes the solution of office problems and of the question of contact with the public. It must be remembered that the popularly elected members are ordinary working people, and find it difficult to place themselves at the disposal of the public every day.

The chief tasks of the apprentice councils are to approve indentures and to ensure that they are written. When an identure is drawn up between a firm and an apprentice it must be ratified by the council before it can become valid. At the same time the council must satsify itself that the firm is in a position to provide adequate training, and that it possesses the equipment and carries out the type of work necessary to meet the requirements of the training scheme. The council must also ascertain if there are skilled tradesmen in the firm who are capable of instructing young persons in the trade to the satisfaction of the local occupation committee for the trade concerned. These committees are also appointed by the municipal authority in the usual manner, that is on the basis of recommendations from the local organizations. The local occupation committees are parallel to the national occupation committees that are formed at a national level. The occupation committees shall visit the firm when the apprentice has been there some time and ascertain that the training is proceeding satisfactorily.

We have seen that it is the firms themselves that exercise supervision in various forms but they do so as representatives of the public, and with public authority.

There is yet another important aspect of the supervision system. In every firm with more than 5 employees, the executive and the employees shall each nominate an apprentices' supervisor. They can be described as Apprentice Council envoys at the various firms, and they must ensure that the training regulations are observed. In industry they also have the important task of nominating the work that is to be the

subject of the trade test. In handicrafts these tests are uniform for all the apprentices in the trade, and a choice of subjects is therefore not mooted, but in industry a special task is selected from the work on the firm's programme. This selection is made by the apprentices' supervisors, or by other skilled tradesmen nominated by them.

A Review of the Effects of the Apprentice Act

The Apprentice Act has now been in force for over 10 years. Even though it only applied to a few trades in the earlier years, it can be said that it has been tested. There was a certain amount of disagreement over the details of the provisions, both in Parliament when the Act was passed and during the preliminary phases. This disagreement was echoed to some extent during the first years after the Act came into force, and many firms showed hesitancy to accept apprentices and sign indentures. Even today it can be said that the number of parties entering indentures is only half as large as it ought to be. One of the most important objections raised by the firms is that the Act involves them in heavy expenses, with full wages to be paid during school attendance and sickness, apart from the extra work necessary to provide systematic instruction. This was especially evident among small firms, and a great majority of the handicraft concerns in Norway have only a few employees. In 1958 therefore, State grants were made available to smaller firms that could accept apprentices. At the same time it became possible to receive a refund of part of the wages which the firms are legally obliged to pay during sickness. These concessions led to a great increase in the number of apprentices' indentures, especially after the subsidy was raised to N.kr. 1,000 per apprentice in 1960. It can be said that the Apprentice Act has now been accepted in handicrafts and industry. But at the same time working conditions have

been changing, so that the provisions of the Act are not always suited to the needs of a particular type of training. Certain modifications, therefore, will be discussed in the near future.

Special problems have arisen in connection with execution of the Act in respect of commerce and office work in 1961. In this sphere tradition offers no established forms of training, and the application of the Act is therefore somewhat more difficult than in handicrafts and industry. The jurisdiction of the Act as regards commerce and office work is restricted to a mere 44 municipalities. The term of apprenticeship here is not concluded by a trade test, but the firm in question issues an apprentice's certificate. Otherwise the system is as prescribed for the other subjects. The apprentice school, however, plays a more important part than in handicrafts and industry. The curriculum at the apprentice school is wider, and the award of the certificate, moreover, is conditional on the apprentice's passing of his examination at the apprentice school.

The system at the school will be explained in a special section (p. 91).

In practice the application of the Apprentice Act to commerce and clerical work has been viewed with considerable misgiving, by the young people among others, who have not been accustomed to tie themselves to a training insti tion for so long as 4 years. This is especially marked in off.. work, where since the war it has been notably easy for youth to find work, and where consequently there has been frequent transference from one work-place to another. The organizations connected with commerce and office work, however, have given their backing to the system, and there is reason to believe that it will gradually be incorporated. There is a wide agreement that on principle it is right that youngsters who take up commerce and clerical work should also receive systematic training, both in theory and practice. It is the practical adjustments that can give rise to a number of problems. In this

sphere, too, possible modification of the statutory provisions is to be considered.

SCHOOL TRAINING IN COMMERCE AND CLERICAL WORK

As has been observed in the account of the Apprentice Act, apprentices in commercial and clerical work shall attend a school for supplementation of their practical training, in the same manner as the apprentices in handicrafts and industry.

The modern office needs employees with a solid vocational training.

School training was available for these occupations, however, before the Act came into force. The schools have been divided into 2 groups, the commercial higher school *(handelsgymnas)*, and commercial schools *(handelsskoler)*.

The *handelsgymnas* was initiated before the turn of the century, the first in 1875. The schools at one time provided 2-year courses based on *realskole* education, but in 1954 the course was extended to 3 years, based on high school education, i.e., the transfer takes place from the second class in the ordinary *gymnas*. At the same time the course was given the designation "high school for economics" *(økonomisk gymnas)* and the examinations were brought into line with those required for the other subjects in *gymnas* schools.

At first these schools were special institutions, most of them administered by municipalities. There are at present 14 of them. However, interest in this economics line has increased markedly, and in recent years classes in economics at *gymnas* level have been introduced in the ordinary *gymnas* schools. In 1963, 17 ordinary *gymnas* schools offer such lines, and the geographical area covered is far greater than before. The range of subjects in the economics classes includes, apart from the usual *gymnas* subjects, social economy, business administration, accountancy, and typing; and in the language instruction emphasis is placed on business correspondence. In relation to the demand for commercial education, the group that can receive training through these economics classes is small; in 1962 there were about 3,500 pupils.

The great majority seek entrance to a vocational school proper, the "commercial school" *(handelsskole)*. This type of school follows a primary school education, and concentrates on the purely commercial subjects: commercial law, business correspondence, book-keeping, commercial arithmetic, and clerical work, i.e., documents and forms. This curriculum is designed to enable those who wish to conduct their own businesses to

acquire the trading certificate required by the Commerce Act. To obtain this trading certificate a certain amount of business experience is needed, and an examination must be passed at a recognized commercial school. The curriculum therefore covers the subjects required in the examination, which is organized by public authority with uniform questions for the whole country.

The courses at the commercial schools can be 6-month day courses, one- or two-year evening courses, or one-year day courses.

At least 480 hours must be completed in a compulsory course for a trading certificate. In the one-year course this number of hours is naturally higher, and a "higher standard" examination can therefore be set, at a higher level than that prescribed for a minimum requirements test.

As has been mentioned, the courses are based on the requirements for the acquisition of a trading certificate, but in practice these courses, until 1959, were the means outside *handelsgymnas* by which those who wished to enter office work could receive schooling. Thus a situation arose wherein the schools were designed for commercial training, and in fact became schools for office staff. Schools of this nature became one of the most popular forms of vocational school, with an attendance of over 10,000. Most of the schools are private, with their expenses covered by school fees.

When the Apprentice Act was passed and plans laid for applying it to commercial and clerical work, it immediately became clear that these schools could not offer a solution to the problem of supplementary theory classes for apprentices in white collar occupations. Apprentices in the retail trade could receive no training in salesmanship and counter-work, and office apprentices lacked instruction in practical office work, use of machines, and typewriting, even though some of the schools provided training in the last-named subject.

In addition, the Apprentice Act requires free school attend-

Pupils at the shop-assistants' school learn how to handle customers.

ance for apprentices, which is no easy matter to arrange at private schools.

Measures were therefore adopted to create a new type of school better suited to the needs of young office personnel. In the meantime, in 1957, a new Act was passed in respect of *handelsgymnas* and vocational schools for commercial and clerical work, an Act which gave the Ministry full powers to draw up curricula and study schedules for the commercial schools.

In support of this Act and on the basis of the apprentice system, a new type of vocational school for commercial and clerical work has been opened. It is called the apprentice school for commerce and clerical work. This school offers either a one-year day course of about 1,400 hours or a 2-year (in one case 3-year) evening course of about 1,200 hours. Apart from

instruction, followed by examination, in Norwegian, clerical work, and the more general subjects in commerce, industry and transport, periods of practical training have been introduced. This offers two lines. In the clerical line, typewriting and office organization are taught, with optional shorthand. In the commercial line the subjects are salesmanship, shop- and storehouse organization, and study of raw materials and commodities.

These schools are administered by the municipalities or counties with State support. They began as trial schools in 1958-9, and now in 1963 they take 5,500 pupils. The private schools are still in operation, but will probably become markedly fewer as the years go by.

The apprentice schools are required to have good premises with special equipment, and the instructors must be fully trained. In order to solve the teaching problem during a period of transition, a system of teachers' examination has been introduced, based on special study with courses if the need arises. The system embraces not only the subjects the candidates are to teach in school, but also the pedagogic aspect of the teacher's education.

To assist the Ministry in the administration of the commercial schools, a committee has been appointed similar to the committees of the vocational schools for handicrafts and industry and to those that deal with the affairs of apprentices. The committee for the commercial schools is called the training committee for commercial and clerical work, and is composed of 5 members trained in school administration, and 2 representatives of employers and members of commercial and clerical staff. This committee organizes the examinations both at the commercial and clerical apprentice schools and at the old commercial schools. It also arranges a special test in commercial subjects for adults who need training certificates but have no time to attend ordinary schools. In the commercial school

sphere it is also possible to sit for an examination in a private capacity, possibly after correspondence courses. These examinations, too, are organized by the committee.

Other Training Schemes for Commerce and Clerical Work

In a number of these occupations various means are provided for the training of office staff and other workers for particular work involved in the services. This training is most clearly defined in the public occupations, but private enterprises also resort to school training, The insurance companies, for example, have their own school, with several grades of training available to their staff. The banks have also combined to establish a special bank school, where the main aim is the grooming of senior bank officials. The instruction is given by means of correspondence combined with short courses. In the beginners' class both the insurance companies and the banks have based the training on the provisions of the Apprentice Act, and the schools are therefore designed purely for specialized advanced training. These schools are not publicly supervised.

In commerce, organized courses for the staff are also available. The booksellers provide the best example of this. They have run a school for assistants for many years, with a 3-month course which must be taken by those seeking situations in the branch. The co-operative societies have their own school, with courses both for beginners and for shop managers.

HOTELS AND RESTAURANTS

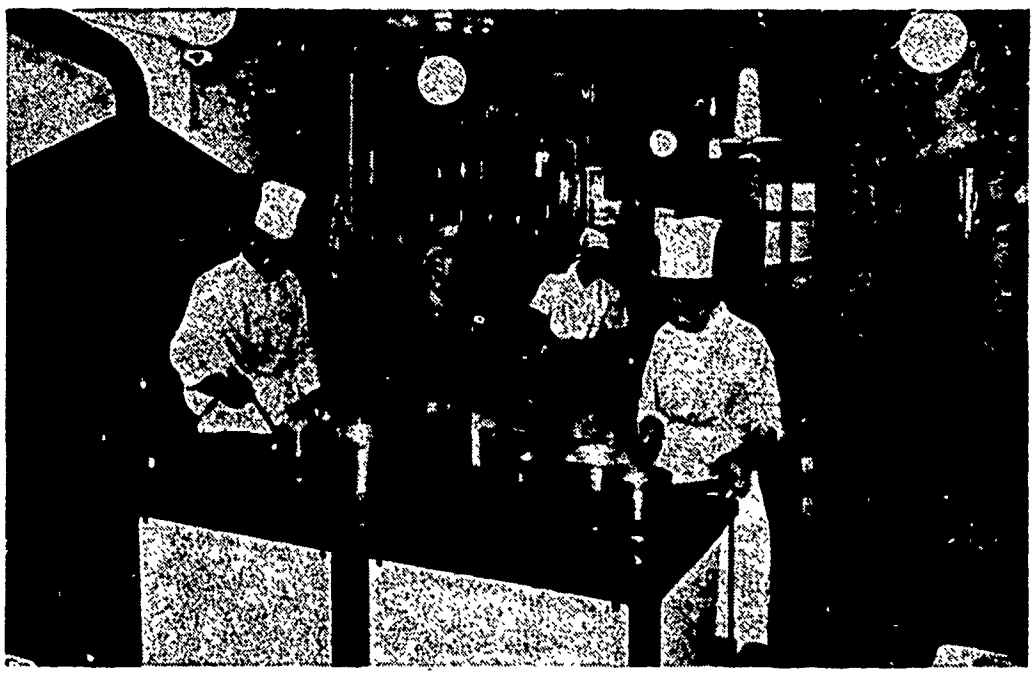
Training of Cooks and Waiters

The classes of occupations that are expanding most rapidly include shop-keeping and other services to the public. These include service in hotels and restaurants. A special licence is required in Norway by those who wish to run a hotel or a guest-house, a restaurant, or a café. Provisions regarding this are contained in an Act of 5 April 1957.

Those who wish to obtain such a licence must pass a test to the satisfaction of a test committee, must have previous experience in the line, and must satisfy certain other conditions.

There is at present only one hoteliers' school in the country, and attendance there is not compulsory for those who wish to obtain hotel or restaurant licences.

Both cooks and waiters receive part-time training at school.

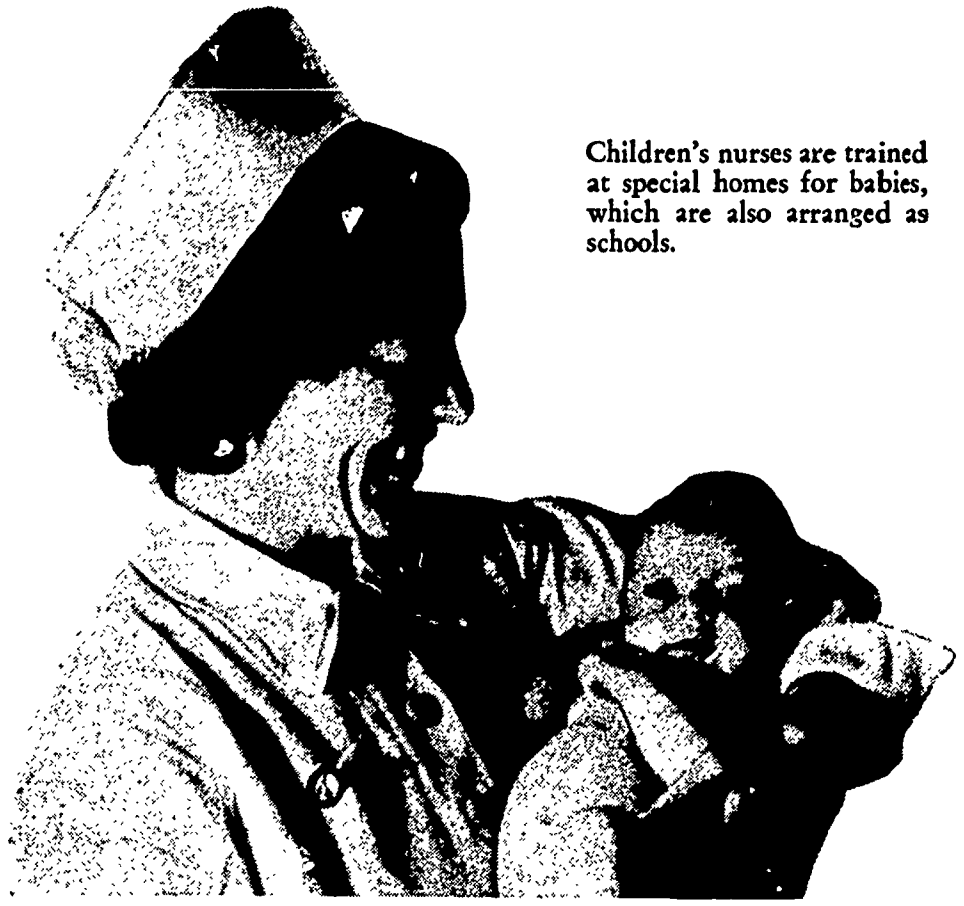


Cooks and waiters are subject to statutory regulations regarding training and trade tests. These regulations follow in essence those of the Act regarding apprentices in handicrafts, industry, and commercial and clerical work. The apprentices shall serve their term in an approved kitchen or restaurant, and there follow a training schedule. During apprenticeship, both classes of apprentice shall attend a practical apprentice school. These schools are embodied as departments of vocational schools for handicrafts and industry. The training in kitchens and restaurants is supervised by district committees for apprentice cooks and waiters, and the occupational or trade test shall be adjudicated by a trade test committee.

The place of training shall be approved by the apprentice councils, which in their turn can apply for assistance to a central body known as the Vocational Training Council for the Hotel and Restaurant Trade. This acts in an advisory capacity to the Ministry of Transport, that is, to the Hotel and Tourist Directorate, the department of the Ministry which covers such matters.

The Council has 5 members of which 4 represent employers and employees in the branch. The chairman represents the Directorate, which also serves as secretariat to the Council.

In the hotel and restaurant trades this training also involves the firms concerned in considerable expense, and the same system of State grants has therefore been applied as that described in the case of handicrafts, industry, and commercial and clerical work. In spite of this, access to the trade is too difficult, and not all hotels and restaurants accept as many apprentices as their facilities allow. To alleviate the situation, therefore, plans are being formed to introduce a preparatory school in these trades. The pupils will take a 6-month course at a comprehensive day-school before entering apprenticeship, and thus become more useful as beginners in the business that accepts them.



Children's nurses are trained at special homes for babies, which are also arranged as schools.

SOCIAL SERVICES

In occupations concerned with health and social matters the demand for qualified personnel rises parallel with the improvement of the standard of national prosperity.

In the health sector one of the most important problems is the *traning of nurses*. This traning is regulated by a special Act of 1960, and consists of 3 years of class-work and practical work. The trainees are attached to a hospital and sit for a public examination at the conclusion of their training.

The applicant for training in this sphere must be as much as 19 years old, with a *realskole* or equivalent education.

Nurses can take advanced training in various directions, for instance, as laboratory sisters or district nurses. Entrants for district nurses' courses must have completed one year as trained nurses. Another line is available for those who wish to qualify as midwives, and there are two courses for psychiatric nurses. All these extra courses are of one year's duration.

Child-nursing is a special branch of health and social work. Children's nurses can be trained at hospitals but most of them receive their training at special infants' homes. The courses are of one year's duration, in some cases of six months. As a rule some instruction in infant management is also given at domestic science schools.

Training in children's nursing is one of the requirements for entrance to a school for *kindergarten teachers*. Pupils at the 4 schools which train these teachers must also have attended a domestic science school and must have at least *realskole* education.

Another group associated with health measures is the *physiotherapists*. They are as a rule in contact with the national health offices, or their patients are referred from the health offices on medical advice. They give treatment to sick persons, and are therefore subjected to strict rules. No person may practise physiotherapy without public authorization, which can only be obtained by satisfying the examiners at one of the two officially recognised schools, The Oslo Orthopedic Institute or the Mensendieck School. The former which is the larger, gives a 2-year course for those with at least a *realskole* education. In practice most of the applicants have passed a high school examination. The school is ostensibly private, but it is run at public expense and plans for converting it into a State school proper are now being deliberated.

Health and health insurance organizations also provide appropriate training. Nursing has been mentioned above, but training centres for the medical services have been established,

with courses for doctors, hospital administration personnel, and nurses seeking special qualifications.

The National Health Insurance Office, which is of course the key health insurance institution, has a programme of training for health insurance staff, which is based for the most part on correspondence courses.

Social workers can acquire a broad training at 3 schools, of which 2 are administered by the State, and the third is private, but State-subsidized. A complete course at these schools lasts for 2½ years, and whereas no specific previous education is officially required, the level of instruction is geared to university entrance examination standard. One of these schools offers an extra line for municipal officials, that is staffs of council offices, tax offices and the like. This school is called Norway's municipal and social school.

Recent years have seen a marked increase in the attention paid to the training of social workers and a mounting necessity for it. The form of the training has been the subject of experiment and a Government Plan for reorganisation is being prepared. The instruction at the school is now carefully dovetailed with the practical work at the various social institutions, whose leaders keep in close contact with the school.

DOMESTIC WORK

The work of a housewife is perhaps not generally recognized as an occupation, but it is obvious that housewives need training for their daily round. Standard school curricula therefore include instruction in domestic science. In addition to this there are special domestic science schools. These were originally associated with agricultural training and were administered by the Ministry of Agriculture, but now they operate under the vocational school department of the Ministry of Church and Education.

Applicants for entry to courses at the domestic science school must have reached the age of 18, and must have completed primary school. Most of the courses last for 6 months and give young women training in cooking, washing and cleaning, needlework, and in some cases infant management. The instruction is both practical and theoretical. There are about 70 schools in the country. Some of them hold one-year courses, in which the range of subjects is essentially the same.

Domestic science training is also available at a number of vocational schools for handicrafts and industry. The object here is to train persons for paid domestic posts, as housekeeper, for example; but the curriculum is nevertheless very similar to that of the ordinary domestic science schools.

Besides serving as schools for housewives and domestic servants, the domestic science schools, as we have seen above, also provide basic instruction in other occupations. Beyond this there is a form of advanced training that is directly associated with these schools. Housewives' helps are taking over to an ever-increasing extent the role played by domestic servants in private homes a few decades ago. These housewives' helps are public servants who are allocated to homes where help is needed, for example owing to sickness. They must be skilled in domestic matters, and therefore must attend special short courses, as a rule at vocational schools for handicrafts and industry, though there are special schools for housewives' helps. They must previously have passed through domestic science school.

Schools for Homecrafts and Home Occupation

There are other schools that are directly connected with domestic activities. These hold courses in female occupations such as needlework and weaving, and for men, ironwork, woodcarving, and maintenance of tools and equipment. These

homecraft schools are divided into separate institutions for women's and for men's spheres of occupation.

The women's homecraft schools are scattered all over the country, with at least one in every county. They follow a set pattern, consisting of a one-year course in sewing or weaving. Besides instructing the young pupils in technique, the schools aim to instil knowledge of style and national tradition. This training provides the groundwork of the home industries that have sprung up in certain districts, enterprises that are important to the tourist industry.

Those who have attended a homecraft school can acquire further training at a State school as teachers of needlework and homecrafts. The duration of the teachers' course is 2 years.

The men's schools offer a greater variety of subjects, even though a set pattern is also followed here. The courses last from 7 to 10 weeks, with training in ironwork or joinery, and in one instance, painting. The instruction is designed to provide training in craftsmanship that can be turned to good use on farms, in the forest, or on boats.

At first these schools were strongly inclined to national arts and crafts, such as wood-carving, rose-painting, and art metal work, but they have gradually moved more into line with the ordinary workshop schools for handicrafts and industry.

The school which trains teachers for the men's domestic craft schools coaches its pupils to pass, for example, the journeymen's test in a handicraft, and they often enter teachers' posts in the workshop schools.

PUBLIC UTILITY SERVICES

In the public services we have a highly developed training. *Norwegian State Railways* have for a long time had a fully equipped school with major and minor courses for all personnel connected with railway traffic. The most important group, the

The engine-driver must be on the alert in the mountainous and irregular Norwegian countryside.

telegraphists, serve the railway stations and can earn promotion to station-masters. The course for these is of 6 months' duration, and prerequisites are *realskole* education and previous experience of the railway. There are other courses for guards, engine-drivers, and signal-men. The railway school is treated as a part of railway work, and the pupils receive pay during attendance.

The *Post Office* has a special school for its office staff. The instruction is given by means of correspondence courses combined with short courses held at the school. Special advanced courses and promotion courses are also available. The training is organized at 3 levels: delivery training, post office clerk's training, and post office learner's training. Hitherto entrants to the two last-named courses have been required to have *realskole* education, but there is talk of a modification of this condition.

The *Telegraph Service* provides its own education in the shape of a 5-month course in the use of telegraphic apparatus, telegraphy and telephones. Advanced training may be had at a 2-year course of higher technical instruction. The telegraph department also demands *realskole* education as a condition of entry to courses. In the future, attendance at the 9-year unified school will constitute sufficient qualification.

Customs and excise run a course for custom officers. This must almost be classed as adult training, for the minimum age for entrants is 23 years. Entrants to the 6-month course at the police school must have attained the age of 20.

Post-office employees have a busy time before the great festivals.

REHABILITATION OF HANDICAPPED

Rehabilitation work in Norway was initiated after World War II, with the purpose of helping the sick and the maimed to adjust themselves as fully as possible to a normal working life. It is not considered adequate merely to pay handicapped persons a pension to enable them to keep body and soul together. If it is possible to help the sick to take work and support themselves, it will be found that this is the best treatment for their sickness.

It is important, therefore, to discover what the patient is capable of doing in spite of his handicap, and to train him to do it as well as possible.

At first this work was concentrated on those who had become war casualties through sickness or wounds, primarily seamen who had contracted tuberculosis. The movement gradually spread to all kinds of illness and injuries, and treatment is now also available for those with congenital disease, including mental illnesses.

The main problem is no novelty. We have had schools for the blind, the deaf, and the mentally retarded for a long time in Norway. There are also vocational schools for many of them. It was not until after the last war that systematic vocational guidance was initiated for the other groups.

The most important step was the foundation of a special institute for investigation of the nature of the ailments seen in relation to working capability. This is the Rehabilitation Institute in Oslo. In recent years similar institutes have been opened in Bergen and Trondheim. The institutes co-operate with the vocational counsellors, who are officials working under the labour exchanges. One of their tasks is to find suitable jobs for handicapped persons. Borderline cases are referred to the rehabilitation institutes, where they are kept under observation for the period necessary. One form of treat-

There are special industrial workshops for the handicapped.

ment is given in a physical training department, where the patients can exercise the muscles that are not damaged, or teach themselves methods of working whereby the injured parts are spared strain.

Vocational classes are attached to the institutes. in which elcmentary training in recognized trades is given, as well as instruction in simple, unexacting work, such as assembling of electrical material. After such courses efforts are made to place the patients in suitable situations. There are also special workshops for so-called protected employment, where the methods are adjusted so that the handicapped can be responsible for the whole production.

Some vocational schools outside the rehabilitation institutes only accept handicapped pupils. The favoured policy is, however, to place these in ordinary schools as far as possible.

Methods of assisting the handicapped have undergone certain changes in recent years. Debilities caused by tuberculosis or poliomyelitis, for example, have become fewer, while injuries from traffic accidents have increased. At the same time, cases of serious mental illness are becoming more numerous. The result has been a rise in the number of rehabilitation cases at the institutes. In the meantime, work on the training of the mentally retarded has expanded. These cases do not pass through the rehabilitation institutes, but the ordinary vocational schools for handicrafts and industry have set aside special classes for these pupils, both boys and girls, where training in unskilled jobs is provided.

THE ECONOMIC POSITION OF VOCATIONAL SCHOOL PUPILS

At almost all the vocational schools in Norway, in all branches, the pupils pay no fees. To keep a child at school after its general education is finished can lay a heavy financial burden on the shoulders of the parents. The children are then at an age where they involve their parents in heavy expenses.

Further, the system is not yet so well developed that every child can attend a vocational school in the neighbourhood of its home. Such is the geographical structure of Norway that this hope can never be realized.

In order to enable all to complete school attendance even if the means of the parents are modest, both the State and the municipalities have voted generous grants.

The municipal grants, which for example in Oslo now amount to N.kr. 1,000,000 (£50,000) per year, are distributed through the school boards, which generally have a special grants committee. The amounts are awarded according to the parents' financial position viewed in relation to their maintenance commitments. Each school makes recommendations for its own pupils.

The State grant, which for 1963 amounts to N.kr. 30 million (£1½ million) is administered by an institution called the State Loan Bank for Young Students. As its name implies, this body administers the grant and also arranges loans to students.

In addition to the funds from the direct State grant, the vocational school pupils have at their disposal a sum of N.kr. 10 million (£500,000) from the unemployment insurance funds. Further, pupils in the higher classes of schools where the courses last several years can receive loans through the institution at reasonable interest and without special guarantees.

The funds of the grant are distributed through the school itself, which appoints a special grants committee. When the amounts are allotted, consideration is given to those who are forced to live at a distance during school attendance. Otherwise it is the parents' financial position that decides the amount of the grant. Those who live in the school area but have long journeys to make can have their fares covered by the municipality, which in turn receives a partial refund from the State.

The expenses connected with school attendance in the case

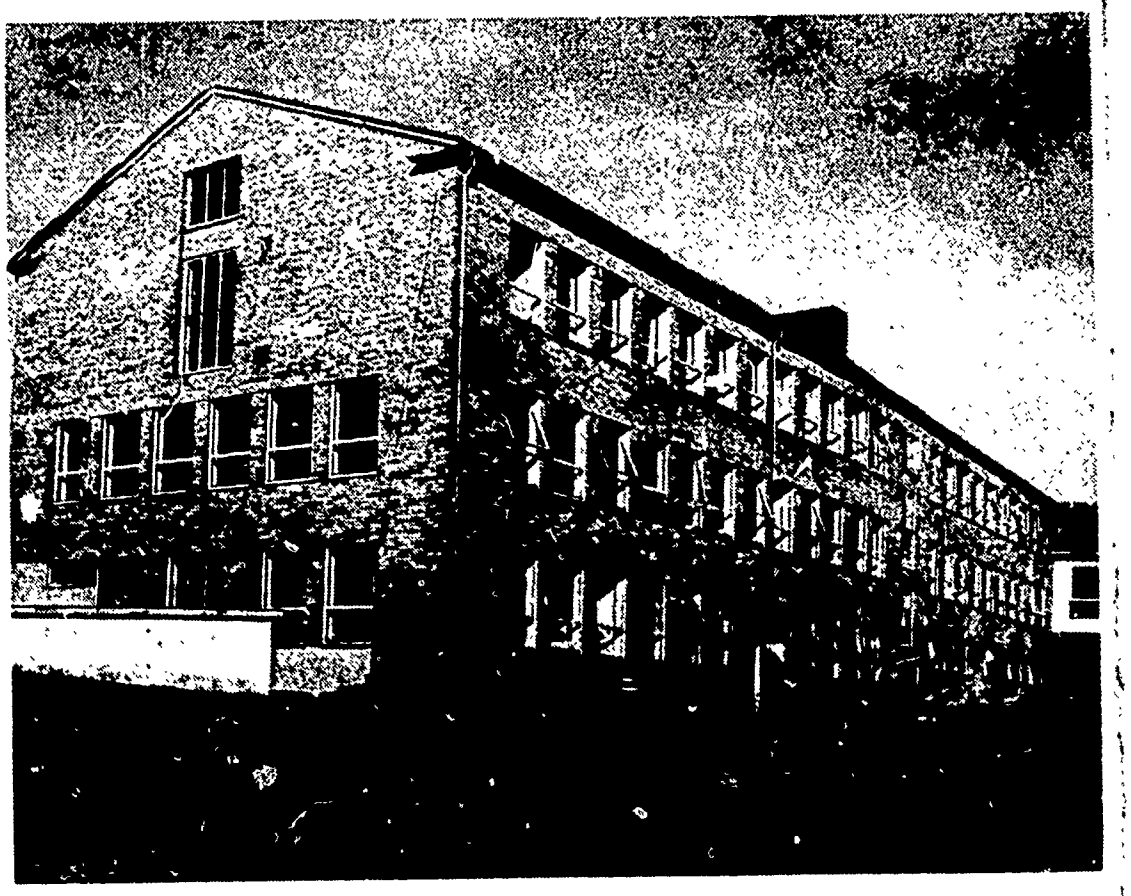
of handicapped persons are defrayed by health insurance according to special regulations.

The aim of the grants is to enable all young people to acquire the education they need and have the ability to absorb, regardless of their parents' financial position, and of whereabouts in the country they live. The target has not yet been reached, but the grants grow larger every year.

THE ROLE OF VOCATIONAL TRAINING IN SOCIETY

It is the generally accepted view that youth is a country's greatest real capital, and that it is therefore essential to provide the best possible facilities for education. A small country like Norway must rely more on quality than quantity in its pro-

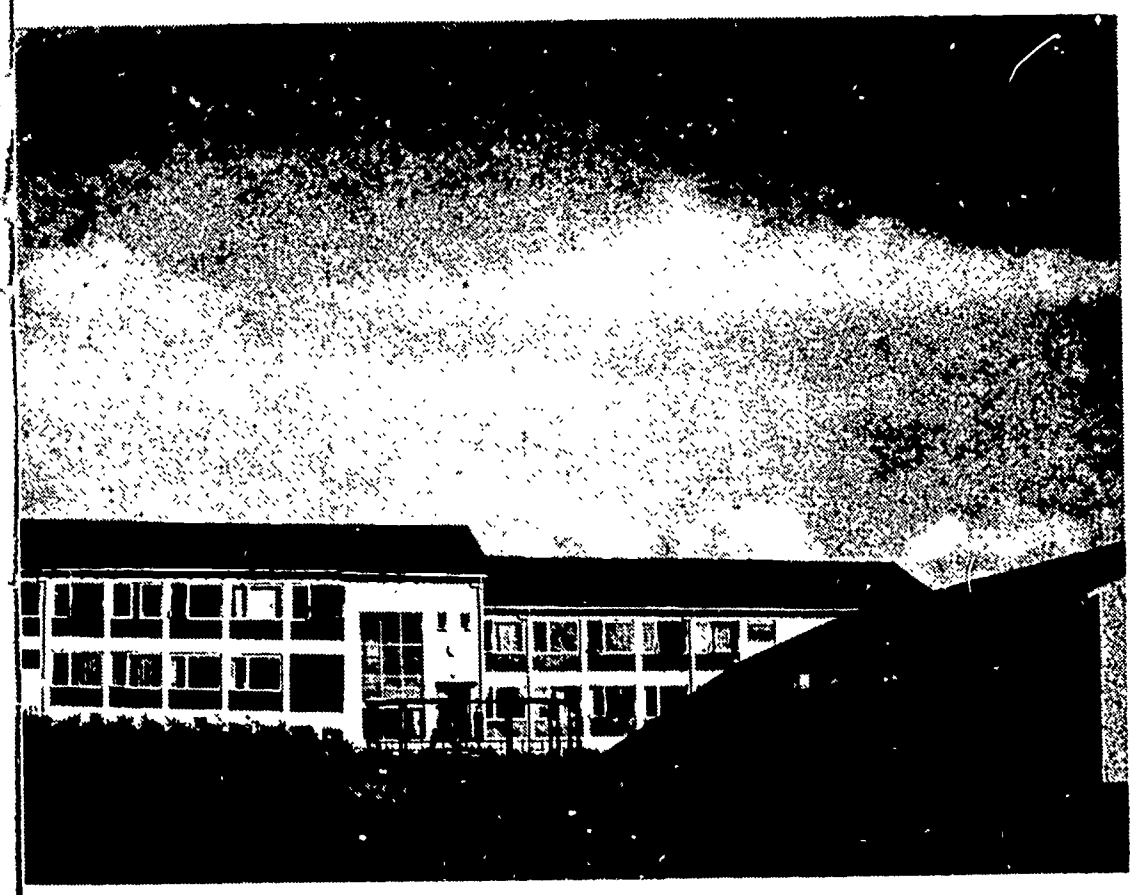
A view of one of the largest vocational schools in East Norway.



duction, and we must therefore possess skilled tradesmen. Consequently, the opinion has steadily gained ground that investment in vocational training, and indeed in education as a whole, is as profitable as investment in machines and technical equipment.

In recent years much effort has been spent on vocational training for all kinds of occupation. Municipalities, counties, and the State have voted ever larger grants for the building of schools, for their equipment, for teaching staff and for school management. In spheres where public measures are not yet in force, the firms themselves have begun internal training of their workers and office staff. Several labour organizations have also awarded training grants to skilled employees in order to promote interest in advanced training.

It can safely be said that today vocational training has become one of the most important social factors in Norway.



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