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# TWENTY-SIXTH BIENNIAL REPORT

1931--1933

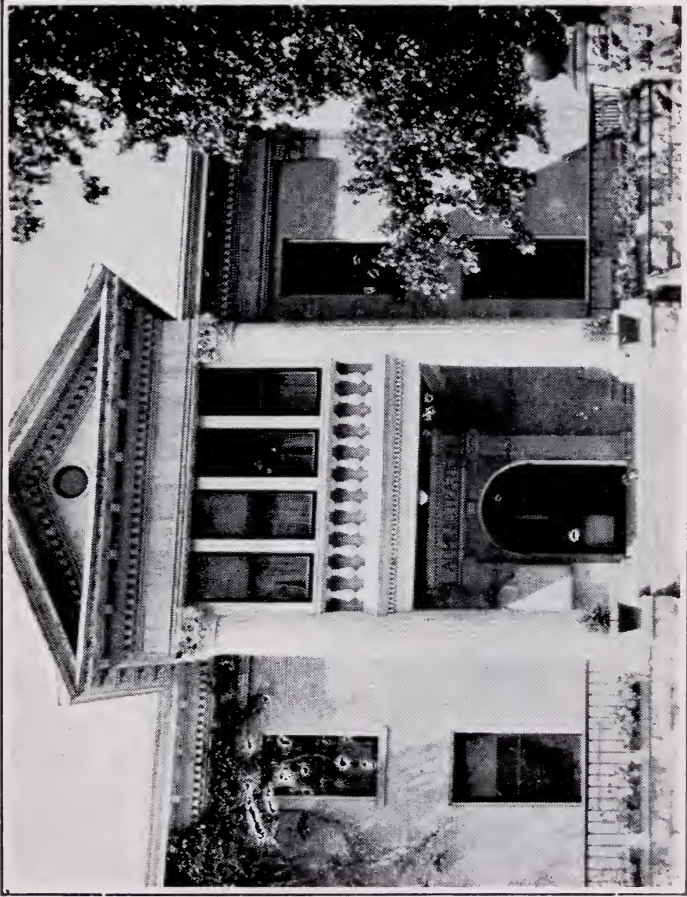


COLCRADO STATE INDUSTRIAL SCHOOL  
Golden, Colorado

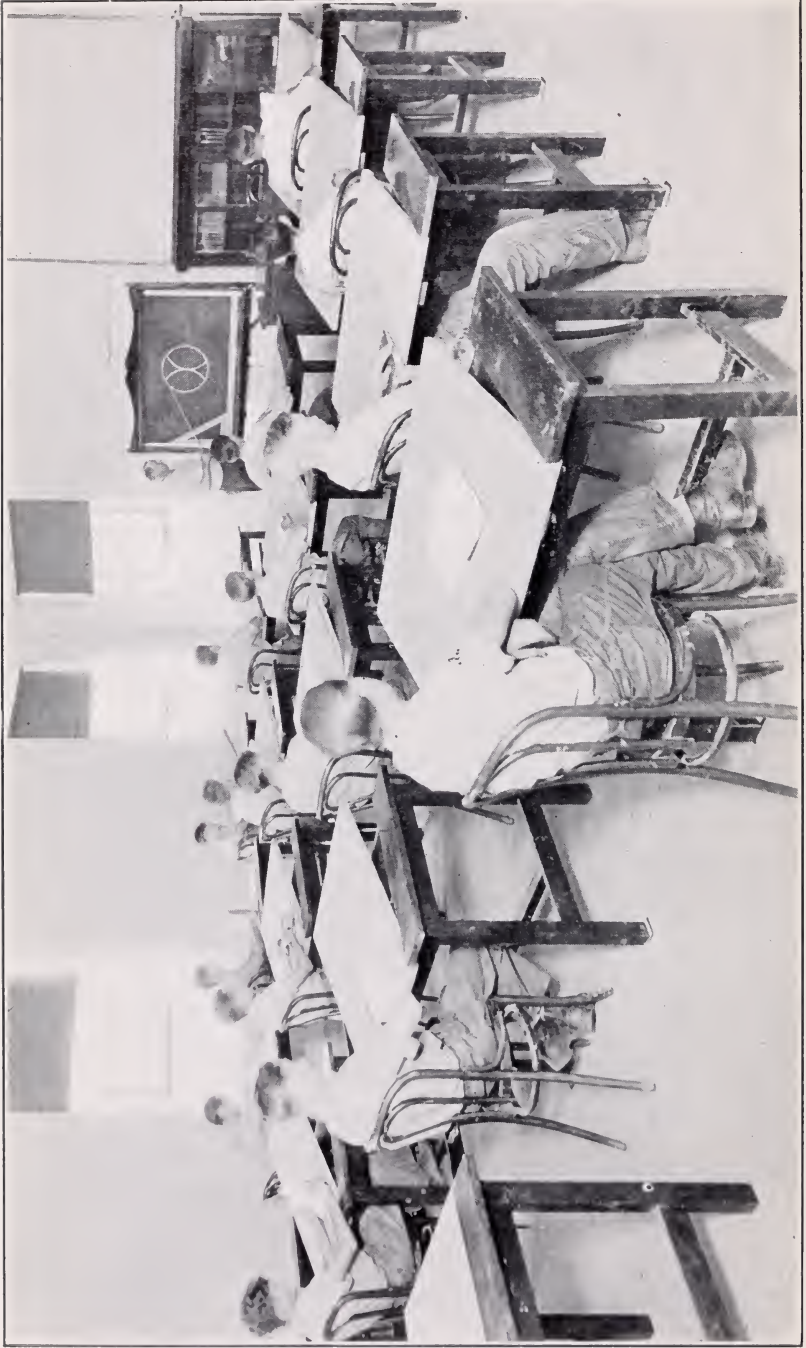
BUREAU OF BUSINESS AND GOVERNMENT RESEARCH  
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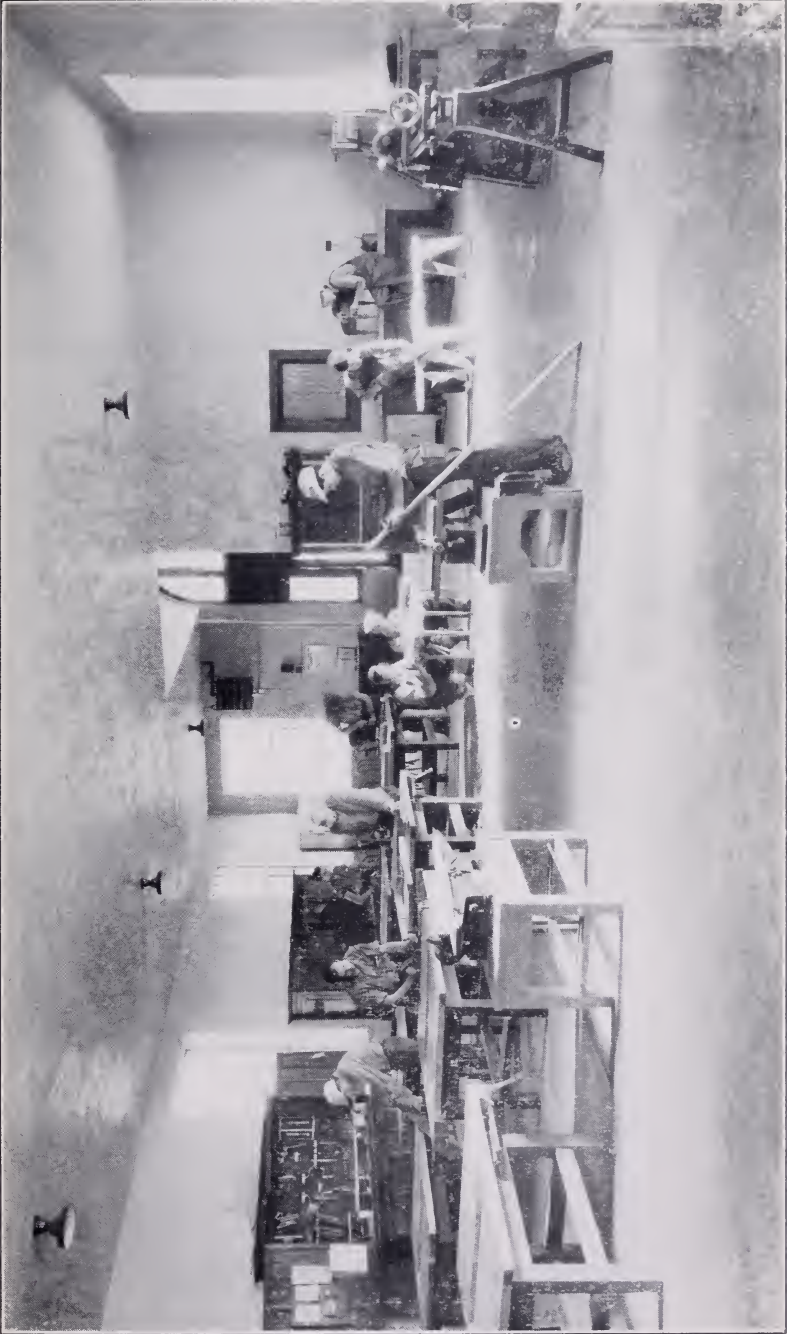
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ADMINISTRATION BUILDING



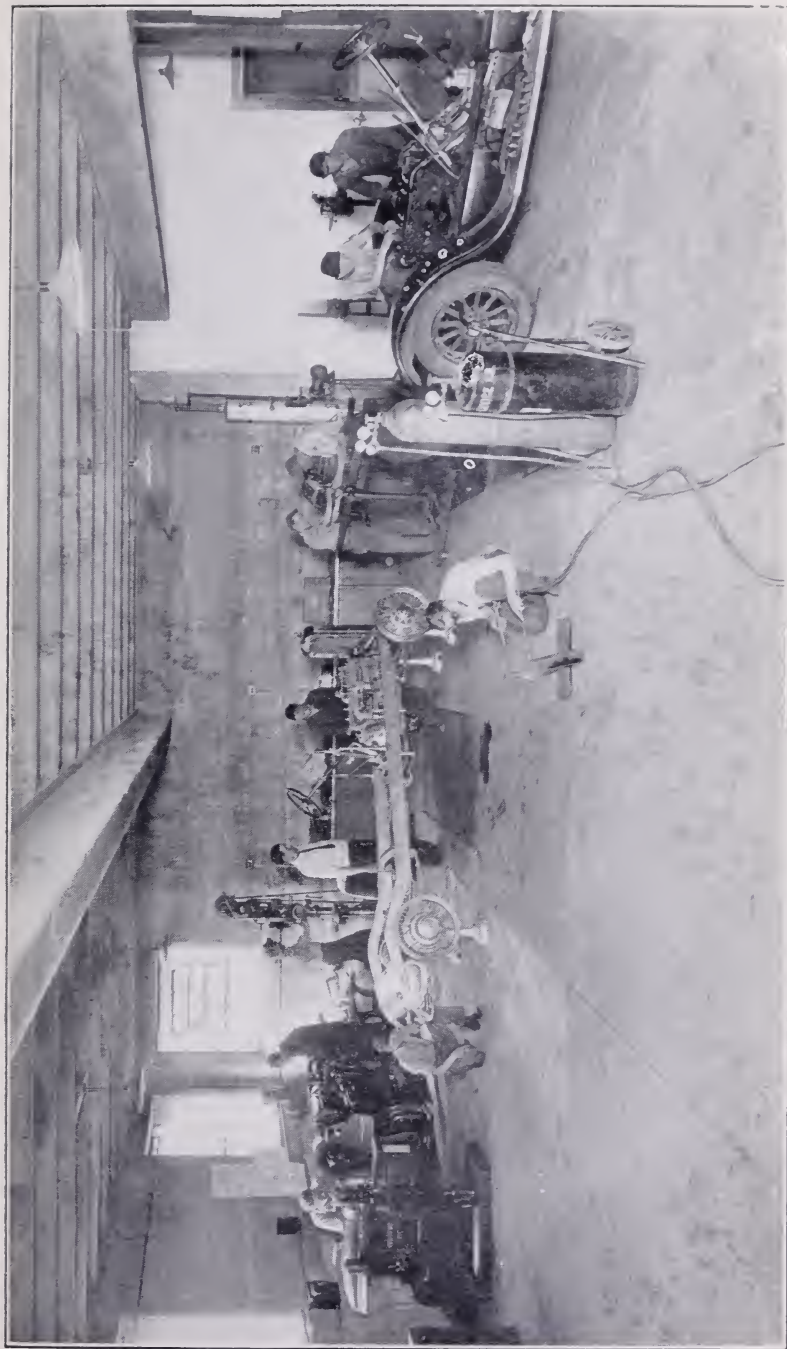
A VOCATIONAL CLASS STUDY PERIOD



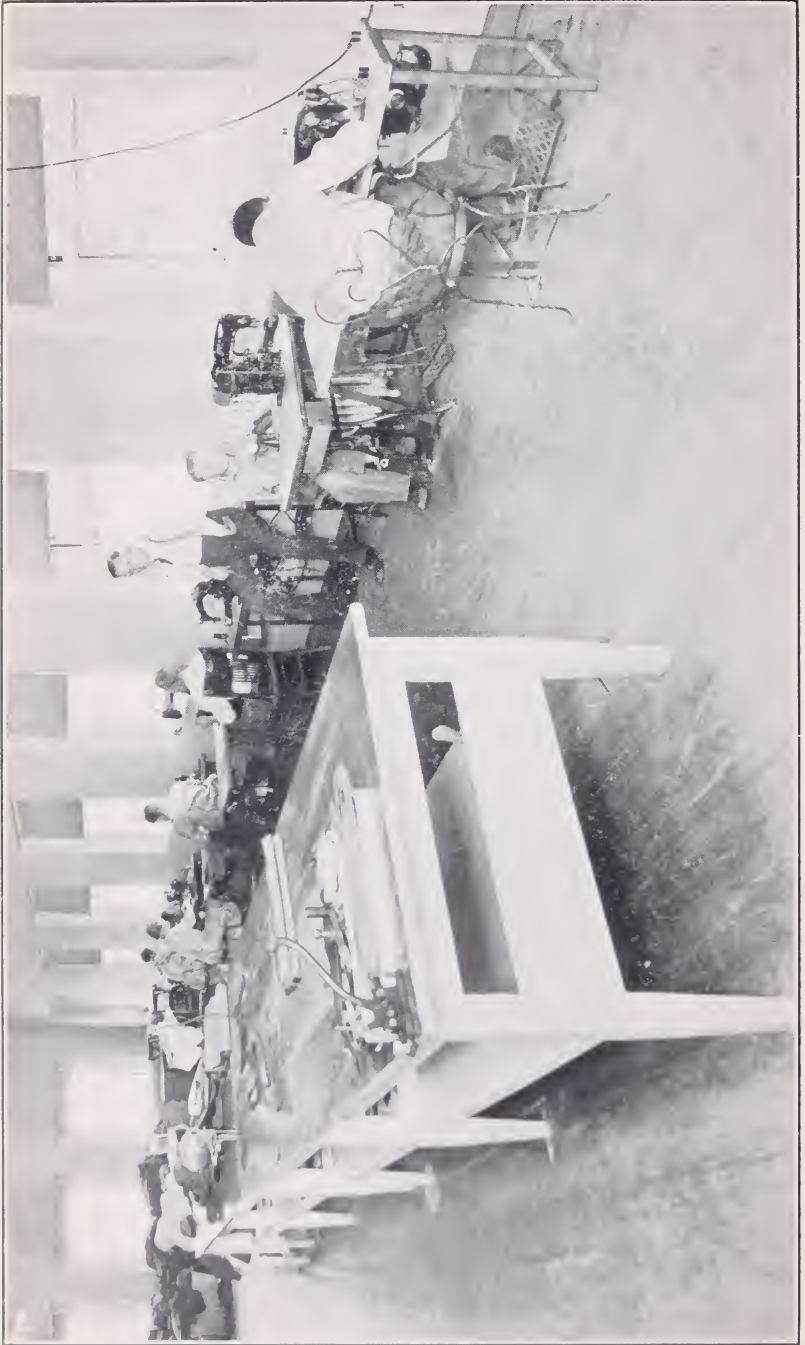
A CLASS IN CABINET MAKING



A CLASS IN PRINTING

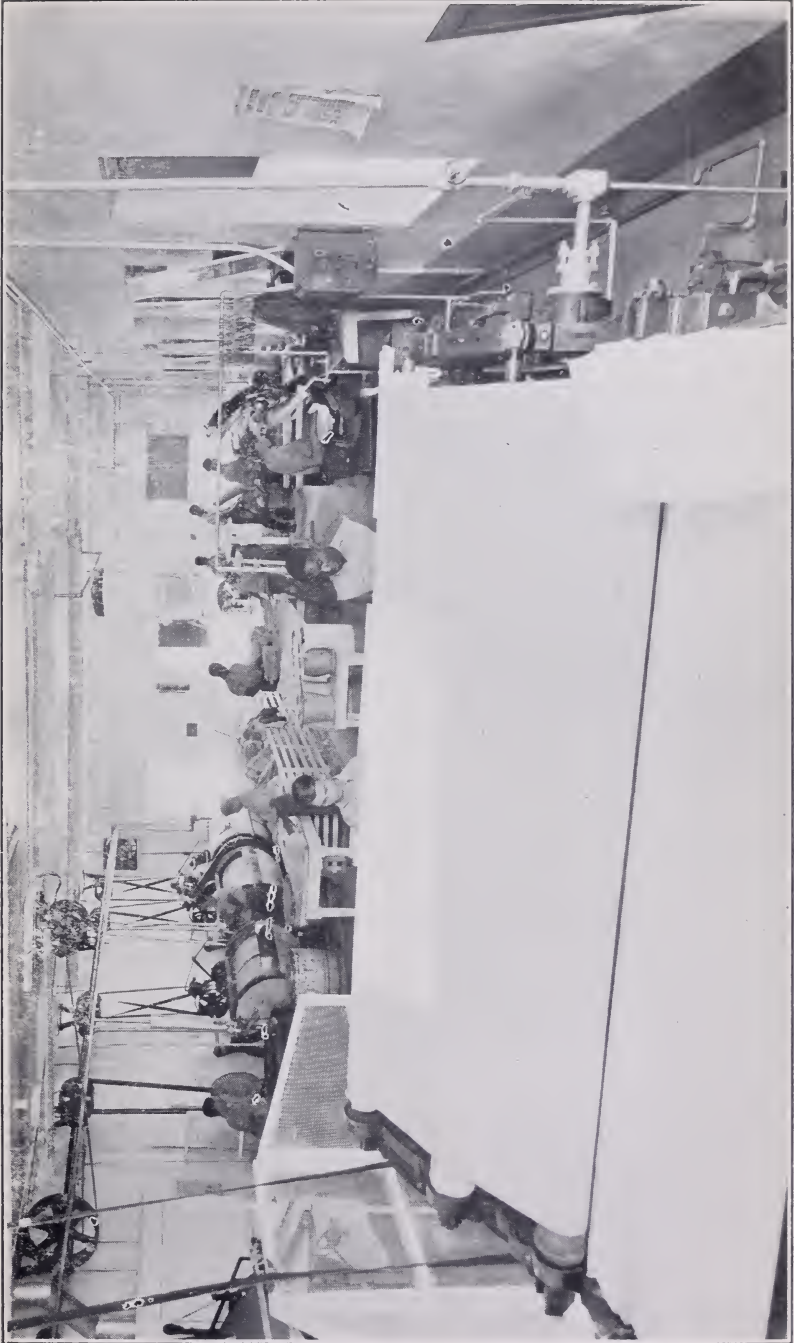


PARTIAL VIEW OF AUTO SCHOOL



THE TAILOR SHOP

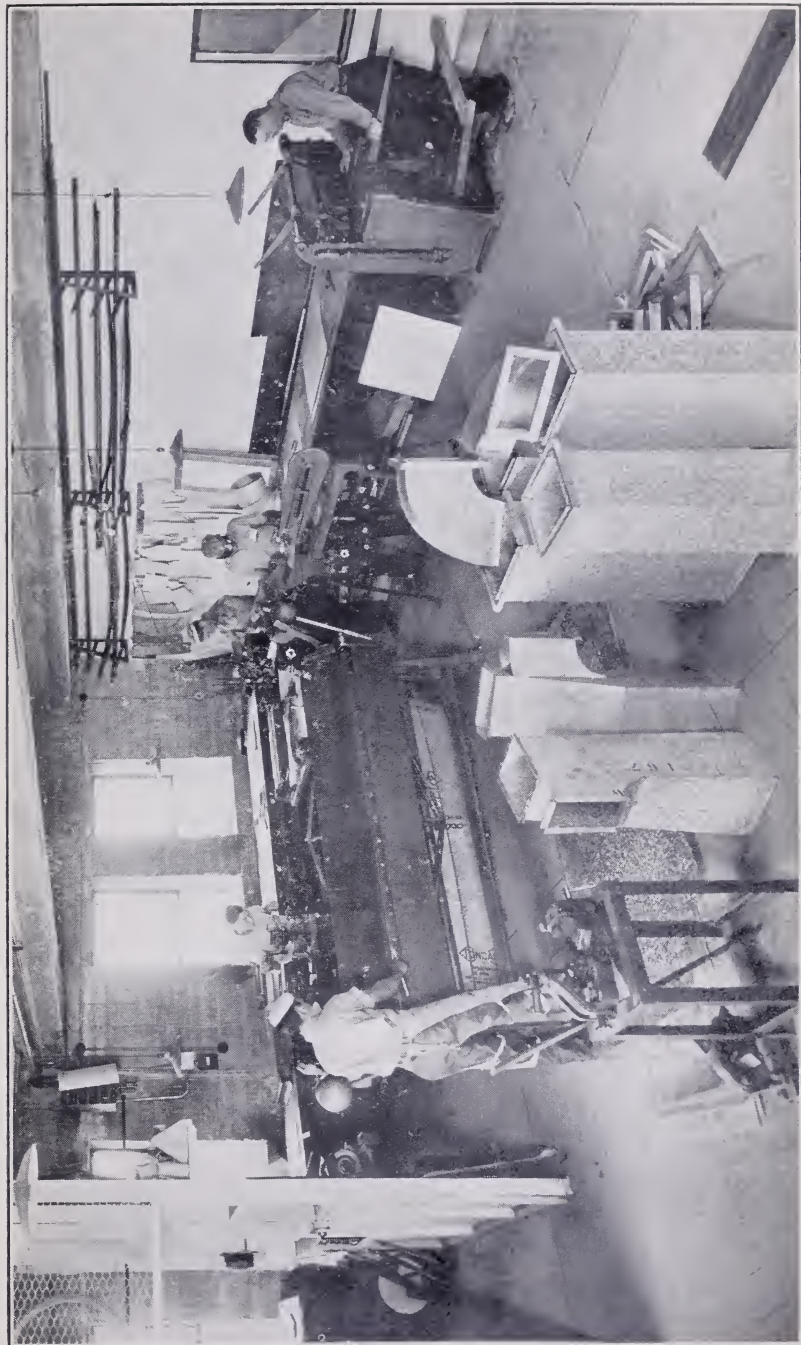




THE SCHOOL LAUNDRY



PARTIAL VIEW OF BARBER SHOP



A CLASS IN SHEET METAL



THE SHOE SHOP

ADMINISTRATION

His Excellency, Wm. H. Adams      Governor of Colorado

Board of Control

Oscar L. Chapman, President      Denver, Colorado

Lila M. O'Boyle, Vice-President      Denver, Colorado

Oscar A. Goetze, Secretary      Golden, Colorado

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B. T. Poxson	Superintendent
Chas. Huscher	Assistant Superintendent
Roy M. Kindred	Director of Education
Frank Waters	Director of Vocational Planning
L. W. Cheney	Supervisor of Company Commanders
L. R. Johnson	Night Supervisor
Dr. E. M. Kemble	Medical Director

## MEMBERS BOARD OF CONTROL AND SUPERINTENDENTS

Lists of Members of the Board of Control and Superintendents since  
organization of the school, July 11, 1881:

### MEMBERS BOARD OF CONTROL

NAME	RESIDENCE	FROM	TO
F. Gardner	Frankstown	1881	1885
S. W. Fisher	Golden	1881	1882
A. L. Emigh	Fort Collins	1881	1882
W. B. Osborn	Loveland	1882	1885
W. G. Smith	Golden	1882	1887
W. N. Megrue	Pueblo	1885	1893
A. L. Emigh	Fort Collins	1885	1889
J. C. Hummel	Denver	1887	1893
J. M. Morris	Golden	1889	1893
B. F. Willlams	Denver	1893	1895
W. J. Jackson	Pueblo	1893	1894
Joseph Mann	Golden	1893	1895
Mrs. E. G. Curtis	Canon City	1894	1897
C. P. Hoyt	Golden	1895	1897
C. W. Lake	Golden	1895	1899
W. A. Smith	Denver	1897	1901
Chas. Landes	Pueblo	1897	1903
G. H. Kimball	Golden	1899	Died, 1903
H. E. Bell	Denver	1901	1901
J. R. Schermerhorn	Denver	1901	1913
Thos. J. Downen	Pueblo	1903	1909
Joseph Dennis, Jr.	Golden	1903	1911
Frank G. Mirick	Pueblo	1909	1915
Wm. Sweetser	Golden	1911	Died, 1912
S. A. Cunningham	Golden	1912	Died, 1914
Evangeline Hertz	Denver	1913	1915
Otis A. Rooney	Morrison	1914	1917
D. R. Hatch	Golden	1915	1921
Mrs. A. G. Rhoads	Denver	1915	Died, 1923
Chas. W. Owens	Golden	1917	1921
Alva A. Swain	Denver	1921	1924
Mrs. Stuart D. Walling	Denver	1925	1925
Arthur H. Bosworth	Denver	1924	1925
Chas. J. Buckman	Golden	1926	1927
William Williams	Golden	1927	1927
Rex B. Yeager	Denver	1925	1926
Emily Griffith	Denver	1925	1931
J. B. Manby, Jr.	Edgewater	1927	Died, 1930
J. S. Underwood	Lamar	1927	Died, 1931
O. A. Goetze	Golden	1930	1932
O. L. Chapman	Denver	1931	Now in office
Lila M. O'Boyle	Denver	1931	Now in office

## SUPERINTENDENTS

NAME	RESIDENCE	FROM	TO
W. C. Sampson	Plainfield, Ind.	June, 1881	Apr. 1889
D. R. Hatch	Golden,	Apr., 1889	July, 1893
R. W. Morris	Pueblo	July, 1893	Mar., 1894
G. A. Gerrard	Fort Morgan	Apr., 1894	Feb., 1896
R. G. Smither	Denver	Feb., 1896	Jan., 1898
B. L. Olds	Denver	Mar., 1898	May, 1901
Frank G. Mirick	Pueblo	May, 1901	Jan., 1902
W. W. Branson	Golden	Mar., 1902	Aug., 1902
Fred L. Paddleford	Industrial School	Aug., 1902	Nov., 1924
Chas. Huscher	Golden	Nov., 1924	July, 1925
Ben F. Taylor	Industrial School	July, 1925	Aug., 1925
Claude D. Jones	Industrial School	Aug., 1925	July, 1930
Chas. Fuschler	Golden	July, 1930	Feb., 1931
B. T. Poxson	Industrial School	Feb. 1931	Now in office

## REPORT OF THE BOARD OF CONTROL

Golden, Colo., November 10, 1932

To His Excellency, Wm. H. Adams,

Governor of Colorado

and

To the Honorable Inez Johnson Lewis,

Superintendent of Public Instruction,

Denver, Colorado

In compliance with the law creating the Board of Control of the Colorado State Industrial School, we respectfully submit this, the twenty-sixth biennial report of the Board. This report covers the present Biennial Period from July, 1931 to date. Included herein and made a part hereof is the report of the Superintendent, Director of Education, Superintendent of Buildings and the Medical Director covering the same period.

### Movement of Population

Number of boys July 1, 1931 .....		247
Received (new) during term .....	193	
Violated parole and returned .....	27	220
<hr/>		<hr/>
Total number of boys cared for .....		467
Died .....	1	
Discharged .....	56	
Escaped .....	13	
Paroled .....	148	
Total number leaving school .....		218
<hr/>		<hr/>
Remaining in school June 30, 1932 .....		249
Average number per day during term .....		255



Financial Statement  
of  
Receipts and Expenditures  
and  
Financial Standing  
as of  
November 1, 1932

Receipts		Expended	Balance
Appropriation, Maintenance .....	\$174,262.96	\$121,634.05	\$52,628.91
Appropriation, Salary Fund .....	132,000.00	87,877.29	44,122.71
Cash Receipts .....	33,919.41	17,061.23	16,858.18
Appropriation, Shop Building .....	10,000.00	9,999.91	.09
Appropriation, Machinery Fund .....	5,000.00	5,000.00	.00
Appropriation, Repair Fund .....	8,000.00	6,325.32	1,674.68
Appropriation, Fire Escapes .....	5,000.00	5,000.00	.00
Cash, Fire Insurance .....	3,394.80	3,394.80	.00

The above balances are to run to June 30, 1933.

PER CAPITA COSTS PER STUDENT

	Biennial	Year	Day
Salaries .....	\$ 617.32	\$308.66	\$ .84
Maintenance .....	749.92	374.96	1.02
	<u>\$1367.24</u>	<u>\$683.62</u>	<u>\$1.86</u>
Less Cash Earnings .....	238.34	119.17	.32
Cost per capita to State .....	<u>\$1128.90</u>	<u>\$564.45</u>	<u>\$1.54</u>

NEEDS FOR BIENNIAL PERIOD

July 1, 1933 to June 30, 1935

For Support and Maintenance for 300 boys .....	\$203,700.00
For Salaries, Wages and Maintenance for teachers and employees .....	168,760.00
For Repairs and General Upkeep .....	10,000.00
For Equipment and Machinery .....	5,000.00

Most respectfully,

BOARD OF CONTROL.

Oscar L. Chapman, President

Lila M. O'Boyle, Vice President

Oscar A. Goetze, Secretary.

## Superintendent's Report

To the Honorable Board of Control  
of the Colorado State Industrial School:

Mr. President and Members:

I respectfully submit herewith my report on the School covering the period from February 15th, 1931 to date, during which time I have been Superintendent of the Institution.

It has been a real pleasure to carry out the wishes and desires of the Board of Control in the operation and management of the school and I feel that I can truthfully say that nowhere in the nation has there been a more faithful and co-operative group of employees than can be found at this institution.

The past two years have been devoted almost exclusively to a rebuilding, not only of the physical side of the school plant, but to a reorganizing and modernizing of an age-worn policy of conducting a correctional institution, through eliminating, insofar as possible, all features of a penal nature and substituting therefor a systematic standardized course of study in vocational, academic, physical, religious, social and military training, incorporating all of the recognized features of the last five as well as formulating a new or advanced program in vocational and industrial training.

The rebuilding program of the school may be grouped into two separate classes, educational and physical.

### Educational

This group as heretofore stated has been divided into vocational, academic, physical, religious, social and military branches.

Twenty-nine standardized vocational departments, incorporating systematic and complete courses of study, with approved text books and reference works under capable instructors with years of experience in their vocational trades and in teaching, have been inaugurated and are in operation and certificates of vocational proficiency are issued to those who have completed the courses. Daily classes of one hour each in theory are given in each vocational department, supplemented by six hours of practical work. Adequate and most modern facilities both theoretical and practical are maintained in each of the

departments for the fullest possible vocational development of the students in each course. Each department is located in a separate room or building, maintaining its own equipment and other facilities independent of other departments. Academic subjects are selected for each vocational department with the view of supplementing the vocational courses with such subjects as will be most helpful to the particular vocation. Necessarily the academic subjects vary in each vocational course. Students are allowed the personal selection of their courses with the aid and advice of the Director of Education.

In line with the latest development in public school education, a projector for showing 16 M. M. classroom films is available to all departments. Appropriate films are shown in each course of study and definite lesson plans are used along with the showing of each. Each showing is followed by a write-up of the films, (to be filed in the students note book), and a test is given on the salient points of the picture. Probably nowhere else does visual education have the possibilities that it has in a school of this type. Reasons are: the wide range in intelligence of the boys, the range of chronological ages, and the wide range in academic school-grades, passed by the boys in each vocational and academic course of study.

The vocational department maintained at the school at the time of this report are as follows:

1. Agriculture: Crops, Soils and farming processes
2. Automobile Mechanics
3. Barbering
4. Baking
5. Bricklaying and Stone Setting
6. Boiler House Operation and Maintenance
7. Cabinet Making
8. Carpentry
9. Cooking
10. Commercial
11. Dairying, Stock Raising, Poultry Raising and Creamery
12. Drafting
13. Electricity
14. Forging, Smithing and Oxy-acetylene Welding
15. Furniture Weaving
16. Gardening, Fruit Raising and Canning
17. Hospital Attendants Course
18. Laundrying and Dry Cleaning
19. Machine Shops
20. Motion Picture Machine Operation

21. Painting and Decorating
22. Plastering and Cement Work
23. Plumbing
24. Printing, Bookbinding and Journalism
25. Sheet Metal
26. Steamfitting
27. Tailoring
28. Shoe Making and repairing
29. Wood Working and Wood Turning

Grade school, junior and senior high school courses are maintained and each student is required to take academic subjects unless outlined subjects have been completed prior to entering this school. In case student enters the school after completing a high school course, only such academic subjects are required as are necessary to complete the vocational course selected. Special combination courses have been arranged for boys under 12 years of age consisting of academic classes, vocational therapy, wood working and supervised play ground work. Boys under the above age are not allowed to enroll in other Vocational departments where operation of heavy machinery, etc., is a requirement of the course. All academic work for older boys is governed exclusively by the requirements of the vocational courses selected.

Physical education consists of the regular and most popular athletic games and contests, supervised play ground work, gymnasium classes, swimming classes, etc. Courses are so constituted as to give the most efficient development to the greatest number of boys. Students are allowed to select the type of physical education most to their liking; however, each activity is carried out in a well regulated and systematic manner so that development is equalized as between courses.

Religious training and education is so outlined and carried out that it shall develop a spontaneous desire and inspiration on the part of the student for spiritual enlightenment and an appreciation of the better things of life, through a religious denomination of their choice. A school choir has been organized embracing the entire student personnel.

Social education has been so regulated as to give a home life atmosphere and to furnish a well regulated substitute for the social education of the boy as would be expected by his parents, were he living in a well regulated home. Such education consists of training in individual responsibility, honesty, thoughtful-

ness, obedience, neatness, consideration of others, personal appearance, group or community responsibility, social etiquette and habits, proper use of recreational periods and general social refinement. Social life is conducted on the group or cottage plan under circumstances as near as possible as would be accepted in a modern living room, recreation or play room at home. Realizing that much of the constructive work which may be accomplished during a boy's stay at the school can be easily cast aside or undone within a short period after leaving school and in returning to somewhat the same environment from which he first emanated and without the proper home supervision, to minimize this condition, in addition to the regular home life supervisors employed by the school, the co-operation of nearly all of the service clubs of the state has been secured in stabilizing the community adjustment of these boys. It is often found that the home environment is not conducive to the best development of the boy, therefore the Supervisor and the local service club assistant is empowered to use their influence directly to improve conditions.

Military training at the school is compulsory and consists of accepted military drills, as used and approved by the United States Army, not primarily for the purpose of soldierly training, but for the purpose of teaching group co-operation, stimulating patriotism and in creating a spirit of loyalty toward the nation, state and community by developing a sense of obedience and respect for law and order.

Since the adoption of the above educational program in the school, it is gratifying to know that many of the boys have signified their intention of staying at the school for a longer period than their required time in order to learn more about the trade they have selected.

### Physical Plant

During the past two years the entire physical plant has been remodeled and rebuilt to conform with the needs of a modern vocational school. Some of the major improvements are listed as follows:

The new vocational building which was started during the previous biennial period has been completed and now contains six vocational departments, a vocational class room and drafting room and offices for the Director of Education and the

Director of Vocational Planning. The shops that have been installed and equipped in this building are Sheet Metal, Auto School, Printing Department, Mechanical Shop, Manual Training Shop, and Cabinet and Furniture Making Department. These departments, as well as all other departments of the school, are completely equipped with modern machinery and tools.

The dining rooms, kitchen and bakery have been remodeled and in these departments there has been installed modern equipment and other facilities, including turbine type fans ventilators, new plumbing, lighting fixtures and steamfitting. All woodwork and wood fixtures have been replaced with metal of a more sanitary nature, mostly stainless steel.

The former chapel has been rebuilt into a modern theater and chapel with balcony, stage, dressing rooms, inclined floor and new opera seats, new wiring and light fixtures and sound motion picture equipment.

A new creamery has been built and modern machinery installed, together with a class room and offices for the farm departments.

A new fire house has been constructed, containing high pressure pumps connected direct to the main water line. The building contains a fire truck, living quarters and fire equipment. New water mains have been installed connecting all buildings in the institution, and new fire hydrants placed at convenient points. Fire lines, with inside hose, have been installed in all main buildings. Fire escapes have been placed on all company buildings and on the chapel and theater building.

The former boiler room of the old power house has been rebuilt into a forging and welding department with modern machinery and equipment.

Another old building has been rebuilt into a paint and decorating department and fully equipped, including machinery for Duco or lacquer work.

Additional equipment has been installed in the cannery increasing the usefulness of the department.

New and modern machinery such as button hole machine, cutting machine, double stitching machines, button machines, tacking machines, etc., have been added to the tailor shop and with these facilities a complete course in tailoring can be given.

The laundry has been redecorated and new machinery has

been added to allow a greater volume of work to be handled.

A practically new gymnasium has been completed, which includes a swimming pool, filter and chlorinator, locker rooms, dressing rooms, and supply rooms. The gymnasium seats 300 persons. The building has new wiring, plumbing, and modern fixtures. And all of the steam lines have been gone over. New sidewalks have been placed at convenient points.

With the inaugurating of a barber school one of the old buildings heretofore unused has been completely rebuilt. One half of it is used for the barber school and one half for the shoe shop wherein are manufactured all shoes (work shoes, dress shoes, football and baseball shoes) and socks that are used at the institution. Modern equipment has been installed in each of these departments.

An electric department has been installed with modern equipment and the facilities of the plumbing shop increased with new appliances.

A modern 84 foot chicken house has been built with a two story feed room in conjunction.

The academic building has been remodeled and redecorated and new text books have been supplied to each grade. New equipment, as well as additional class rooms, have been added in the high school, including a chemistry laboratory.

Three company cottages have been rebuilt. New lathing and plastering, woodwork and floors, wiring in conduit, light fixtures, plumbing and steamfitting as well as new bedding have made these structures more attractive. Recreation rooms contain new rugs, furniture, and radios. Recreational games, are now played in pleasant surroundings.

A new music room has been provided, equipped and furnished for the band.

Sidewalks have been built connecting all buildings.

All main line high pressure steam pipes in tunnels throughout the institution grounds have been covered with manganese covering, materially increasing the efficiency of the power plant, and effecting a saving in coal,

The arches and inner walls surrounding the boilers in the power house have been replaced and an auxiliary 50 h. p. motor has been installed in the water works system.

The officers' living quarters in the several company buildings, as well as the officers' building, have been repaired and redecorated.

Electric lights have been installed in all barns and buildings of the farm department.

New equipment has been supplied to all branches of the physical education department.

New text and reference books have been supplied in each of the twenty-nine vocational departments.

Shrubbery and trees have been extensively planted over the school grounds during the past year.

New farm equipment and fence material have been supplied to the farm departments.

Numerous other items might be mentioned, all of which have gone to materially increase the effectiveness, to preserving the states' property, and to reduce future expense in the maintenance of the institution. Practically every building at the school has been brought back to a state of condition equally as good as the day it was built.

In going through the institution on a inspection tour the school might impress one with the idea that such elaborate facilities are not usual in a place of this kind.

However, when one is impressed with the fact that these very facilities, for the most part have been provided by the boys themselves, since the adoption of the systematic courses of vocational training, then it is somewhat surprising that other institutions of this type have not expanded more than we have along these lines. The money expended in instituting this system of vocational training has not been provided, in many instances by increased or special appropriations, but rather by savings effected in the various departments.

The upbuilding of these departments and the general morale of the school is nothing more than the fruits of the system itself, which should, as time goes on, materially reduce the cost of maintenance to the people of the state.

The greatest of all results however is preparing the student with a systematic vocational education for a life's work.

In conclusion, I wish to extend my thanks to the Board of Control and the officers and teachers of the school for their most valuable assistance during the biennial period, without whose help the results obtained during the present period could not have been accomplished.

Respectfully submitted,  
B. T. POXSON,  
Superintendent.



Tables Compiled From Records of The School

Covering Fiscal Year July 1, 1931 to June 30, 1932

EXHIBIT A

Showing From What Counties Boys Have Been Received

Arapahoe .....	5	La Plata .....	1
Adams .....	5	Las Animas .....	5
Archuleta .....	1	Larimer .....	1
Alamosa .....	5	Logan .....	2
Baca .....	1	Montezuma .....	2
Boulder .....	3	Morgan .....	1
Conejos .....	5	Otero .....	5
Delta .....	4	Pueblo .....	4
Denver .....	63	Washington .....	3
El Paso .....	14	Weld .....	3
Garfield .....	1	Yuma .....	6
Grand .....	2	U. S. Borders .....	41
Huerfano .....	3		—
Jefferson .....	4	Total received (new) .....	193

EXHIBIT B

Showing Ages of Boys When Received

Ten years .....	6	Sixteen years .....	39
Eleven years .....	4	Seventeen years .....	18
Twelve years .....	16	Eighteen years .....	11
Thirteen years .....	21	Nineteen years .....	5
Fourteen years .....	24	Twenty years .....	3
Fifteen years .....	40	Twenty-one years .....	6

EXHIBIT C

Showing the Social Condition of Boys Received

Both parents living .....	112	Without step-parents .....	141
Father dead .....	40	Step-father .....	30
Mother dead .....	32	Step-mother .....	20
Both parents dead .....	9	Both step-parents .....	1
	—	Foster parents .....	1
	193		—
			193
Parents separated .....	41		
Boys not previously convicted .....	102		
Boys previously convicted .....	91		
Boys who have been inmates of other institutions .....			24
Boys who have not been inmates of other institutions .....			169
			—
			193

## FACULTY MEMBERS

J. T. Flattery	Instructor in Electricity
Walter Jackson	Instructor in Manual Training
Mary Mohler	Commercial Instructor
August Schultz	Instructor, Dairying and Creamery
L. L. Mohler	Commercial Instructor
O. A. Goetze	Instructor in Printing and Journalism
Wm. Dyer	Instructor in Steamfitting
O. A. Hedden	Auto School and Mechanics Instructor
Lloyd Miller	Instructor in Carpentry
Mary Enholm	Music Instructor
Arthur McNeil	Instructor in Sheet Metal
C. F. McNutt	Barbering Instructor
Lena Weller	Grade School and Librarian
Nannie Mathews	Instructor in Hand Craft
Wm. A. Allen	Instructor in Military Education
Frederick G. Enholm	Physical Education and High School Instructor
Fred Bochaty	Instructor in Forging and Welding
W. J. Blackburn	Instructor in Tailoring
E. E. Weller	Grade School and Religious Education
Roy Davis	Instructor in Laundrying and Dry Cleaning
Fred C. Kaeser	Instructor in Baking
F. C. Shelley	Instructor in Painting and Decorating
Walter A. Hopkins	High School and Athletics
Wm. Baker	Carpentry Instructor
Charles Inman	Instructor in Concrete and Plastering
E. J. Coats	Instructor in Cooking
A. F. Owens	Gardening and Canning Instructor
John Anderson	Instructor in Agriculture
Mack Annis	Plumbing Instructor
A. J. Lincoln	Instructor in Shoe Making
A. S. Shockley	Nurse and First Aid Instructor
H. T. Curry	Instructor in Bricklaying
W. W. Wildman	Instructor in Power House Engineering
George Atchley	Instructor in Social Welfare
L. G. Sickler	Band Master and Music Instructor
Adolph Schoech	Instructor, Livestock and Poultry Raising

## COMPANY COMMANDERS

Wm. Kirk, T. P. Price, E. M. Witter, C. A. Booth, F. C. Roberts, B. B. Baker, H. B. Smith, C. B. Haskell, George Mathews.

Paul Prink	Supervisor of Supplies
Alta Davis	Seamstress
Mary E. Owens	Matron

Report  
of the  
Vocational Department  
for the period  
Beginning February, 1931  
and  
Ending November, 1932

While a distinct Vocational Education scheme, as such, was not in existence here prior to February 1931 the basic idea for a comprehensive vocational education program to dominate the entire daily life of the institution originated soon after Judge Poxson took over the duties of Superintendent in February, 1931. Probably for the first time in the history of the United States, the so called academic education was recognized in its true light; that it is a part of vocational education and is not an end in itself as the American public school system traditionally has regarded it. Accordingly, the educational structure of the State Industrial School has been built around the central idea of teaching boys vocations and with the academic type of education subordinated to the vocational. The Vocational Department, therefore, embraces all the academic and trade departments that existed prior to February, 1931 and those which have been provided since February, 1931 all of which are discussed briefly in the following paragraphs.

This discussion will summarize in the following order: 1. Changes that have been made in departments existing prior to February, 1931 including the addition of new equipment; 2. New departments provided for and equipped after February 1931; 3. A final word about the general vocational education set-up inaugurated and under construction and revision at the present time.

Considering departments that were here prior to February, 1931, we note that the Agricultural department (including Farming, Dairying, Stock Raising, and Gardening) have been provided with some new equipment. The poultry has been housed in a new house and yards and the creamery has been remodeled and equipped with new tanks, sinks, etc. made by the sheet metal crew. Outside equipment such as machinery and harness has been improved and replaced from time to time insure their workability and repairs and alterations have been made to barns and other buildings. Contemplated additions are new barns, remodeling of the old garage into a barn, and an addition to the garden cannery.

The Auto-mechanics department has seen some very distinct improvements. Originally housed in a small, cement block building, it now boasts of more spacious quarters in the new Vocational Building. New equipment includes a lathe, shaper, engine reboring bar, brake relining machine, connecting rod aligning gig, and a Pontiac cutaway show model chassis. A new gasoline pump, together with the old pump, have been installed back of the garage and future construction work will provide parking space for cars and trucks also in the rear of the garage.

The Bakery quarters have been improved along with the kitchen and Commissary departments, and new equipment added consisting of work tables, dining tables, and steam hoods. Substantial alterations have been made to the building itself.

The Engineering department at one time included the Electrical, Plumbing, and Steamfitting Vocations, but the latter three now have their own quarters. In addition, each one has its own instructor and whatever equipment is necessary in carrying on the work of the trade. Under the new arrangement, the Engineering department consists of the Boiler house, its operation and maintenance and has no connection with the former three except as they are needed on repair jobs.

The Carpentry shop has been moved to the Vocational building where it occupies a large room. New equipment consist of a floor sander, waxer and polisher. This department has been especially busy on the remodeling of various buildings about the School.

The Blacksmith shop now occupies the old boiler house building. This building was completely repaired, stuccoed, and made into a very efficient unit of the School plant. Equipment includes a home-made student forge, electrically driven hammer, grinder, and the necessary hand tools. Work done includes all types of farm machinery repairing, horseshoeing, etc.

At the present time the Hospital is receiving its share of the general repairing and redecorating that is being done by the boys of the building trades. When completed, the Hospital will have a new diet kitchen and a better arrangement of the wards. During the past year those boys assigned to Hospital for minor ailments, have done considerable work toward beautifying the surrounding lawn and flowers beds.

The Laundry and Dry Cleaning department has had some alterations and has received some badly needed equipment. A better ventilation system has been installed to counteract the extreme heat and add to the comfort of the boys working in this department. The laundry does all the institutional work including service for those officers and families who live on the campus.

With all the remodeling that has been done, the Painting and Decorating department has had an opportunity to acquire a vast amount of practical experince. In every building on the campus one can see painting and decorating that was done by the boys. Most noteworthy of all their work is the duotone, stippled effects achieved in the Little Theatre, Offices, and Company Recreation rooms,

Plastering and cement work are a part of any building or remodeling program and the boys of this department have had their full share in the general scheme of improvement. Probably their most difficult piece of work was the Swimming Pool and the stuccoing of the Gymnasium.

A further contribution to the general remodeling has been made by the Art Craft department. This contribution consist of rugs, pictures, fibre furniture such as lamps, smoking stands, ferneries and baskets. Most of these products have found their way into the Company recreation rooms while others are to be found in the dining rooms and sleeping quarters. While the work of the department is mostly avocational, the fibre furniture weaving has distinct trade value being as it is

considerably of an industry in itself.

Unfortunately, and fortunately, the School Print Shop was almost entirely destroyed by fire last January. The fire was a fortunate one in that it did so little damage to the building, also that the insurance was ample to pay the damages to the building and outfit the Printing department with new steel storage cabinets, type cases, type and have all the presses overhauled.

During the last biennial period, the Tailor Shop has been equipped with several special-purpose machines which place it on a par with many of the commercial tailoring establishments. Since practically all the boys clothing is made here, it follows that the tailor shop plays a very important part in the economic life of the institution. The tailor shop also has the responsibility of keeping the boys' clothes mended. A new tailoring project will be the manufacturing of new uniforms for the boys.

Similarly to the Tailoring department, the shoe shop also has an important task to fulfil. The soil in this region is very rocky, necessitating frequent repairs to footwear as well as replacements of footwear. These are handled very capably by the boys of the shop who learn both the shoe repairing and new shoe making phases of the industry. The entire shoe plant was removed from a poorly lighted basement room to a well lighted suite of rooms on the first floor which greatly improved the facilities and quality of the work done.

Turning now to the departments which were added after February, 1931, we have first the Barber School. This pleasant room adjoins the Shoe shop but has its own outside door and is complete in every detail. Equipment is at hand for training three boys at one time which number can be increased many times by alternating groups of boys. The boys are given plenty of practice on the work of the trade and, by special arrangement, they go to the State Industrial School for Girls twice monthly and learn how to cut ladies' hair.

The completion of Charles Huscher Vocational Building has made room for three new departments. These are the Cabinet and Manual Training Shop, Drafting Room and Sheet Metal Shop. The cabinet shop occupies one of the largest and best lighted rooms in the building and also has a complete new outfit of hand tools, jointer and circular saw. Bench tops of hard maple were bought outright, the boys building the supporting framework and installing the vises, bench stops, etc. Tool cabinets, a nail and screw cabinet, and storage bins also were made by the boys.

The tables for the Drafting Room are a product of the Cabinet shop and are very satisfactory in every way. Built with a tilting top, they can be fitted to posture of the individual. Boys of the Carpentry, Cabinet making, Electrical, Plumbing and Sheet Metal trades are required to take either mechanical or architectural drafting and boys of other trades are allowed to take drawing when there is a vacancy. The drafting room also fits in as a general classroom and moving picture show room for the various trades. A 16 M. M. motion picture machine is provided to show various phases of industrial enterprises and the necessary projection screen is an integral part of the drafting room.

The Sheet Metal shop is one of the busiest places on the campus. Equipped with the latest machinery for working sheet metal, the boys of

this department have contributed some sort of sheet metal product to every department of the School. Steam hoods, ventilating systems, cornices, down spouts, buckets and work tables are only a few of the things that have been made.

The latest vocation, or department to be added is that of Moving Picture Machine Operation. Our Little Theatre is provided with the latest sound-on-film projecting device and our twice-weekly shows provide an opportunity for the boys to learn this well-paying occupation.

This concludes our very brief description of the old and new departments. In conclusion we wish to say a few general words regarding the Vocational education program at Colorado State Industrial School. It is apparent from the records that our boys are sent here for a very few reasons. Probably the most outstanding of these are lack of suitable home environment, plus lack of responsibility where their are homes involved. (That is, many of the boys come from separated parents, or are orphans). Still others come from homes where there is little if any supervision of the boys' spare time. Lack of opportunity and inability to use spare time profitably then, are the two factors with which we are most intimately concerned. The objective of our Vocational Education program therefore, is to provide an opportunity for every boy to learn an occupation, to fill his working hours with sufficient practical experience to insure the acquisition of skill in the occupation chosen by the boy, and supervised recreational activities along the line of clean sportsmanlike, physical education, social pastimes and spiritual enlightenment that will help to teach him the worthy use of leisure time.

Toward the fulfillment of this objective, the entire life of the institution has been organized. The requirements for parole consist of acquiring proficiency in a trade selected by the boy when he enters, plus good citizenship while he is here. Each trade has its own outlined course of to follow which includes the informational, or technical, and the skilled operations a tradesman must be able to do. In addition each boy eventually will have his own individual course outline to follow.

The reasons for providing each boy with an individual course outline are two. First: The wide range in individual abilities. We have boys in the various vocations who range from the first school grade through high school and who obviously, will have varying rates of progress. Second, by providing individual course outlines, each boy is encouraged to work along at his own rate of speed and to use his own initiative to the end of becoming more resourceful. In other words, we feel that an individual course outline will help to teach responsibility by making each boy responsible for the successful completion of his own course of study.

Since a tradesman must know certain facts pertaining to his vocation, in addition to being able to do the skilled operations of the trade, it is obvious that these facts must be available in some well organized form. By searching far and wide, we have acquired textbooks concerning most of our vocations. Exceptions are Cooking, Laundering and Dry Cleaning, and Plastering. In the case of the latter, it probably will be necessary to write our own books of instruction because there apparently are none written from the standpoint of teaching the trade.

The instructional plan is very simple, one hour per day being devoted to

study of the text book, discussion, or writing answers to questions in the individual course outline. The remainder of the day is taken up with practical work of which there is a sufficiency. In this way a proper balance is struck between the theoretical and practical phases of the trade.

Probably the greatest innovation of the vocational education program is the way in which paroles are earned. Formerly a boy was required to earn so many conduct credits to be eligible for parole. These credits were given for behavior also for overtime work periods so that a boy had only to obey orders and get a job paying the most "extras" to earn his way out ahead of time. Now, however, this practice has been changed. Under the present scheme a boy must choose a trade when he enters and completes the necessary course of study before he can be recommended for parole. The extra conduct credits no longer count except that he must average so many per month. If the boy completes his eighteen months course of study in twelve months and has averaged one hundred and twenty conduct credits per month for the period, he is eligible for parole. Upon completion of the Requirements for Parole, a boy is presented with a Diploma of Vocational Proficiency.

It has been stated previously that the academic education is subordinated to the vocational. This is true in every respect. During the biennial period, the entire academic program was modified to include individual work books in all the studies and, further, to provide a means whereby boys in the vocational departments can be helped in subjects in which they are lacking in attainment. Thus, in every academic subject, we have left room for consideration of the vocational aspects of it. For instance take arithmetic. The sheet metal worker has arithmetic problems distinctively peculiar to his trade. These have been included in a separate folder and, when a boy is low in this part of the work, his academic teacher is instructed to stress problems of this type for him.

Another phase of the vocational program that should be mentioned, is the visual or motion picture instruction. A 16M.M. projector has been provided for the purpose and films descriptive of the various industries are shown at frequent intervals. As time goes on, these films will be catalogued and organized into a definite program of supplementary information so that they can be shown at the right point in the course of study. Since a great number of these films can be shown for the asking, the incidental expense is negligible.

A very important part of our vocational scheme is the program for the encouragement of worthy use of leisure time through the medium of supervised physical education activities, social life, and last but not least, spiritual ministrations. Considering the above in order, we have as supervisor of Physical Education a man having years of experience in supervising play ground activities in Denver. A year around sports schedule sports includes football, basketball, and baseball games with other schools, intramural games in the above sports, volley ball and horse-shoes, and swimming contests in the new pool just completed. The basic idea in all of these sports is clean playing, good sportsmanship and cooperation or teamwork.

For the hours between supper and bedtime, recreation rooms are provided in each company quarters. These include pool tables, for the larger

boys, reading tables, and game tables. A library is maintained in the academic school building from which the boys are privileged to draw books or other reading materials. The Company Supervisor has charge of this evening period and he comes in very intimate contact with the boys being, as it were, their father for the time they are with us. It is the function of the Supervisor further to observe the boys personal habits with a view to aiding them in overcoming undesirable traits or tendencies.

The social life of the school, while not being distinctly vocational, is a contributory factor to contented living without which there can be no vocational success. For this program, then, picture shows and entertainments are held in the Little Theatre twice weekly. In addition to these, a birthday party is held once each month for the boys having birthdays during that month.

Closely connected with the social but also partaking of a vocational flavor is the band and orchestra. Under the leadership of an experienced man, these two organizations rapidly are rounding into first-class shape and now play for the shows and entertainments mentioned above.

The final aspect of our vocational plan is the spiritual development of the boys. This is accomplished through Sunday School and Chapel exercises held each Sunday morning and which are of a general, denominational nature. All boys regardless of creed are required to attend these meetings. Later in the day, the various beliefs such as Catholic, Jewish, Christian Science and others are allowed to have their own meetings.

In summary, then, vocational education at the Colorado State Industrial School consists of 29 trades or vocations, each having a definite, outlined course of study and practical work to be done. It has the academic type of education subordinated to the vocational where it rightfully belongs, visual instruction supplementing the regular class work, and a distinct program for teaching the worthy use of leisure time through physical, social and spiritual education.

Respectfully Submitted.

ROY M. KINDRED,

Director of Education.



## Report of Director of Vocational Planning

### CHAPEL BUILDING

A program of remodeling and repairing was carried on throughout the entire building about one year ago. The old auditorium, now known as the "Little Theatre," has been completely rebuilt. The old floor arrangement was not suitable for the purpose for which the room was intended, so a new floor plan was drawn to meet new ideas. A large stage was erected on the west end of the room and a balcony 18 feet wide was constructed on the east end of the room. The main floor was elevated on the east end of room and carried to the west end on a pitch of two and one-fourth inches to the foot. New theatre type seats were installed, the seats having been built to suit the pitch of the floor, so that the vision is not impaired in any part of the building. New oak floors were laid throughout. The walls were replastered, then decorated with "Dutch Putty" or Craftex. This was then worked out with colors in oil in a three tone job. One color blending with the other colors, gives a most pleasing effect.

The electricians rewired this building from the top to bottom. In the Little Theatre the circuits are broke up in such a manner that no one circuit carries more than 1000 watts. The exit lights are on one circuit, and the side wall lights are on another. The ceiling lights are broken into three circuits with all circuits controlled by a single dimming system. These lights have three way control and can be operated from the picture booth, at the top of stairway or from the stage. The picture booth is located in center of balcony. Wire lath, cement tempered plaster and double ceiling make up the main structure. All openings in the booth for the projection machine are guarded with metal doors that are controlled by fuse links. Should a fire start in the booth at any time when these windows are open, the melting of the fuse automatically closes all openings.

Two electric fans were installed in the west walls and have capacity great enough to change the air every three minutes.

The steam fitters have installed a complete two pipe job on the heating system. Radiators are placed in such a manner that very little, if any, of the radiation is lost. If thermostatic controlled valves could be installed in this building the heating job would be complete. The installation of these valves would affect a saving of approximately ten per cent in the amount of steam used to heat the building.

The first floor of the building has also been remodeled. All old wood casings have been removed and metal corner bead and metal quarter round have been installed. The old serving window which was constructed entirely of wood has been removed and replaced with metal mouldings and stainless steel counters. Ventilators in the ceilings, hoods over kettles, dishwashing machine, range, etc., have been installed, all being fabricated in our own shops. The entire floor has

been redecorated by the painters and the old plumbing system has been removed and new and modern plumbing has been installed. Floor drains have been installed in boys' dining room, kitchen, bakery and all basement rooms. The steam service for kitchen, bakery and boys' dining room has also been remodeled, doing away with small and inadequate steam pipes, return lines and traps. Larger and better steam service has greatly increased the efficiency of these departments.

Three hundred square feet of metal decking has been installed on the flat portion of the roof of this building. Tile has been purchased to replace some of those that are broken. New gutters and down spouts have been fabricated in our sheet metal shop, and installed by the metal workers, on the lower roof of this building. The upper roof gutters and down spouts are in very poor condition and should be replaced in the near future.

The portion of the walks to the west and south of the building are brick, having been laid many years ago. Time has taken its toll, and these walks should be replaced with cement in the near future.

#### FIRE HOSE AND FIRE EQUIPMENT

Two years ago this institution had very little, if any fire equipment. Today we are fairly well equipped to handle any blaze that might get started. A building 18x40 ft. with a 12x12 ft. wing for sleeping quarters has been built. This building is known as the fire house. A motor truck equipped with 600 feet of 2½-inch standard Underwriters hose, a 40 gallon chemical tank and a set of ladders, is housed in this building. Two of the larger boys are quartered here and are in readiness at all times to answer any call that might come in. A two stage centrifugal pump has been installed in this building as a booster pump for fire protection. The pump is installed on a bypass on the water main and will throw 500 gallons per minute at 115 pounds pressure. With this volume and pressure, it is possible to throw two streams of water through 1 1/8 inch nozzles over the top of the roof of our tallest building. The pump is electrically driven and is connected by a direct line to our transformers. In this way, should a fire start in our switch board room, all power could be cut there but the fire pump would still have electric service.

Three hundred feet of four-inch water main, that was on a direct line with our domestic pumps, has been removed and replaced with six inch pipe. This four-inch pipe which was removed was again installed on the east end of a main that had been dead-ended. This was carried on through to meet the main at the south end that was also dead-ended, but which now forms a complete loop. This insures an even pressure on all hydrants and helps to keep the mains clear of rust and sediment. Two hundred and eighty feet of four-inch main was installed to the barns. A new two-nozzle fire hydrant has been installed at a central point to give protection to barns and sheds. This line should be continued to cover all sheds west of main structures and also all poultry and livestock buildings south of main structures. This will take 1200 feet of 4-inch class C pipe and five two nozzle hydrants.

First-aid hose lines have been installed in every building in the school with at least one line on each floor. A 1½ inch hose line with a one-half inch play pipe nozzle is attached to each of these stand pipes. The length of the hose depends on locations and amount of space to be covered.

Each building has at least one 2½ gallon chemical tank on every floor. These tanks are inspected and recharged at regular intervals.

Steel stairways have been installed in the dormitory and Chapel building for use as fire escapes. These replace the old type iron ladders hung on the side of the building, which were dangerous in the event that they had to be used.

### GYMNASIUM

An extensive program of repairs and remodeling has been carried on in this building. The old structure was not only in a dangerous condition but was not suited for the purpose for which it was used. The walls were cracked, the floors were in bad condition and the basement was useless, in so far as practical use was concerned. Plans were drawn for a reconstructed structure, which was built, consisting of a two story addition 30x60 feet and a new ceiling was installed in old part, new floors were laid and the entire building plastered and painted. A swimming pool, 28x48 feet with a graduated depth of 3 feet to 7 feet was built in the old basement. New equipment consisting of filtering tanks, pumps, and heater were installed to complete the job of making this a first class pool. Locker rooms and equipment rooms were built in the basement of the new addition. Bleacher type seats, overlooking the basketball floor, were built on the second floor of this new addition. Modern plumbing and heating systems were installed throughout the entire structure. These include shower baths, toilet, lavatories, radiators and Unit heaters. Floor drains were installed in such rooms as were likely to need them. The electricians rewired the building complete, using conduit pipe and B. X. cable. The remodeling of this building is a conversion of an old useless relic to one that will be a source of joy and education to every boy who enters the institution for sometime to come.

### LIVESTOCK AND POULTRY

Old and inadequate buildings have been repaired and remodeled by the carpenters and plumbers and are now considered to be in fair condition. One new poultry house has been constructed. This building was badly needed. At least two more buildings, such as this one, should be built in the near future. The plumbers have installed new valves and water pipe, causing a considerable savings in the amount of water used. A further saving in water could be made with the addition of frost proof hydrants. These will be installed when time and money permit.

## TAILOR SHOP AND LAUNDRY

This building houses the tailor shop and laundry on the main floor and the plumbing shop, electric shop, dry cleaning plant and receiving company on the ground floor. The building is constructed of field rock. The floor in the laundry is of reinforced concrete while that in the tailor shop is of oak. All ground floor rooms are of concrete. New hatchways have been cut in the ceiling of the laundry department to increase ventilation. Walls and ceilings in the laundry and tailor shop have been repainted during the summer and are now in first class condition. The dry cleaning plant is housed in this building causing a high insurance rate. Plans are now under way to build a smaller building to house this department so as to get a rate equitable with the other buildings.

## FARM DEPARTMENT

Farm buildings are in fair state of preservation with exception of one corrugated iron building that is in poor condition. This structure is a fire hazard and is practically useless for service on account of the rusted condition of the roof and side walls. It should be torn down as soon as practical and a new and larger barn should be built to replace it. The horse barn is in good condition with the exception of the roof and hay mow floor. The present roof of corrugated iron has been on for about 20 years and needs replacing, rust having taken its toll. This roof should be replaced with asbestos shingles or other material equally as good. The floors of the hay mow are old and cracked in many places and should also be replaced as soon as possible.

The dairy barn is fireproof in construction but time has taken its toll here also. A corrugated iron roof has rusted and scaled until only a shell is left. The old construction of the framework of this building makes its roof unsuited for asbestos shingles. Galvanized corrugated iron or other good roofing metal should be used. With a new roof on this structure it should be good for many years to come.

The corrals and cattle sheds are in good condition but are inadequate. More corrals and at least one more cattle shed could be used to good advantage.

The line fences are in fair condition. New posts are added from time to time as needed. Several thousand feet of the old type unpainted barbed wire is beginning to rust through and should before long be replaced, with the new processed galvanized barbed wire.

The creamery building is in first class condition. This building was formerly used as a storage or "catch all." The job of converting this building into a creamery at first seemed like a hopeless task. By removing one partition, cutting in windows and doors, bricking up other windows and doors, putting in ceilings and then giving the inside of the building a coat of plaster, a rehabilitated structure was had. The electricians completely rewired the building, using conduit throughout. Steam fitters and plumbers installed the necessary steam pipes for heat-

ing and scalding cans, floor drains, wash sinks, scalding tubs, cooling tubs, etc. The sheet metal shop made hoods where needed and installed necessary ventilators to keep the room cleared of any vapor. The painters decorated walls and ceiling in white. A pasteurizer, churn, separator and other machines, necessary for proper handling of the milk, were installed. A creamery, that is first class in every respect, is now housed in a building that was ordered, about three years ago, to be torn down.

## HOSPITAL

This structure has never been very convenient as a hospital building. Interior changes are now under way to make it semi-modern. Even with the alterations that are being made the place will not be an ideal hospital building. A new ward is being added by moving the kitchen equipment to another part of the building. The old kitchen was small, poorly lighted and unhandy in its location. Adjoining the old kitchen were a linen closet and small dining room that were not satisfactory for the purposes for which they were used. By removing several partitions a room 13x17 feet was secured, having plenty of light from two windows. The entire room was replastered, a new oak floor was laid, and the painters will decorate the walls with soft pleasing colors. A new kitchen is being installed in a room on the southwest corner of the building. This gives those in attendance much more room and plenty of light. The plumbing and steam fitting in this part of the building will be modernized. A linen closet is being built by putting in a partition on one unused part of a ward, off the main hallway. This closet will be much larger and better situated than where it formerly was. Linoleum, now on the floors, is being removed and relaid in parts of the building where it will give the best service. Mastipave is being laid in two wards, the main hallway and the office. The painters will then give the entire interior one coat of paint, and when all the work is completed another improved structure will grace the grounds.

## BARBER SHOP AND SHOE SHOP

Three years ago it was thought this building could not be utilized for any practical purpose, and was ordered torn down. The building had been unoccupied for about one year. Plans were then made to remodel the building and install the shoe shop in the main portion of the structure. A smaller room adjoining the main structure was decided upon as barber shop quarters. An arched door way connecting this room with the larger room was bricked up, and a doorway cut in the east wall. The double doors in the larger room, facing the north, were bricked up part way and a large window installed in the opening. Double doors were then cut in the south wall. New ceilings were then installed, walls and ceilings throughout the building were plastered and painted, and with the laying of oak floors a rehabilitated building was had. New and modern plumbing was installed, including hot

and cold water. New radiators were placed in the barber shop and a unit heater in the shoe shop. The electricians rewired the building for power and light and installed new lighting fixtures. The entire exterior of building was then given a coat of stucco.

#### PAINT SHOP

This building is one that was ordered torn down about three years ago as it was considered as being of no value, unsightly and a fire hazard. About a year ago a suggestion was made that this would make excellent quarters for the painting department. Remodeling the building was then started. Large double doors that were on west end of the building were bricked up about half way. A large window frame was set in the opening and then cased in. Smaller double doors were cut in on south side of building. New window frames were then made and set in place. Ceiling rafters and wire lath were installed and ceiling and walls were then plastered. The electricians wired the building for light and the steam fitters installed a two pipe heating system. Hot and cold water and a lavatory will be installed when funds are available. The roof of this building is of corrugated iron, and is not in the best of condition but will last for a few years yet. The building has had a new coat of stucco and it is now quite an asset to the school.

#### CHAS. HUSCHER VOCATIONAL BUILDING

The completion of this building was a distinct asset to the institution, as the teaching of all vocational work centers here. Over a year ago reinforced concrete floors were installed throughout. Partitions were then installed on both floors to segregate the different departments. The top floor was ceiled with wire lath, plastered and then painted. Modern plumbing was installed throughout the structure. Each floor has individual rest rooms, sanitary drinking fountains, and all toilet facilities. The structure is completely wired to adequately take care of the heavy loads used in the various vocational departments, and light fixtures particularly suited for each department have been installed. The unit type heater has been placed in each department, thus permitting the people in that department to regulate their own temperature. The vocational director's office has been stippled with Craftex and the three-tone color job put on by the school's painters has made this office most attractive. All new partitions in the basement of this building have been plastered, but not painted. Side walls and ceilings in this part of the building should be plastered and painted in the near future. The sheet metal department has fabricated and installed the ventilators in the rest rooms and elsewhere where needed on the school's properties.

#### BLACKSMITH SHOP

This building is a part of the old boiler house, and was ordered torn down at the same time that the main structure was razed. Owing to the fact that considerable old machinery was stored in this building it was allowed to remain standing. About a year ago this old machinery

was traded in on new, modern machinery for the machine shop. The building was then worked over in such a fashion that it is now in as good a condition as most any of the older buildings. This building had a flat tin roof and tapered walls. The walls were built up on one end and cut down on the other end so as to make them level. A gable roof was then put on and covered with painted corrugated iron. A portion of the cement floor was replaced and the walls plastered. A ceiling of ribbed ceiling tin was installed—(this tin having been salvaged from one of the dormitory buildings.) A large double door was cut in on the north side to permit bringing in wagons, farm machinery, etc. Forges were built from scrap materials and now the school has as convenient a shop as can be found anywhere. The exterior of this building was given a coat of stucco. The electricians have rewired this building for both power and light. The steam fitters installed a unit heater which keeps the room warm in the coldest of weather. The plumbers will install hot and cold water, lavatory and toilet when funds permit.

#### POWER HOUSE

This is a comparatively new building and is in very good condition. However, in designing this building, apparently no thought was given to ventilating under the roof. Intense heat is thrown off from the feed water tank, boilers, steam pipes, etc. With no ventilation in the roof this heat is concentrated here, consequently when work is to be done on top of the boilers it is impossible to work very long at a time. A ventilator or skylight should be cut in the roof to relieve this condition.

The boilers are in excellent condition, free from scale and no pitting. The fire arches are of the flat type and have been a source of trouble since the plant was first put in operation. When funds are available these arches should be removed and replaced with a suspended arch of either first-class fire brick or a good heat resisting plastic cement.

Two boiler feed pumps supply water for the boilers, but these pumps are too small for the duty they have to perform. They should be replaced by larger pumps that can be run at slower speed, cutting the operating costs. The vacuum pump is entirely too small to handle return waters and should be replaced with a larger unit. A great saving in fuel could be made if all return water was returned to the boilers. An oil separator should be installed so that exhaust steam from the pumps can be used for heating make-up water for boiler use.

The boilers are each rated at 175 H. P. but there is no way to determine just what load they are carrying. Certain types of meters should be purchased and installed on them so that carrying loads could be computed into pounds of coal. In this way the operator could determine whether he was getting the desired efficiency.

Several hundred feet of various sizes of magnesia pipe covering has been installed on steam pipes during the past eighteen months, which has made a saving in fuel bills. Additional covering will be added from time to time, until all pipes are properly covered and insulated.

## COTTAGE "A"

An extensive remodeling program has been carried on in this building, and is now almost completed. The old plumbing has been overhauled and is now modern in every way. New stacks were placed where needed. Additional lavatories were installed. In the boys' wash rooms toilets, urinals and floor drains were installed. The installation of new sinks saves several hundred gallons of water every day, as well as giving greater convenience to those using them. Hot and cold water may be had from individual mixing valves. Sanitary drinking fountains were placed on every floor of the building. The steam fitters have installed a complete two pipe heating job throughout the building. The electricians have rewired such portions of the building as was possible to get at, during the remodeling. In the boys' recreation room new semi-incandescent fixtures were installed, giving easy and pleasing light. Convenience outlets were installed in the walls at regular intervals for floor lamps, radios, or other service. The walls and ceilings were replastered and painted. The walls were stippled with Craftex and a three-tone color job of painting was then put on over the Craftex, one color blending in with the others. This gives a very pretty and pleasing effect. New oak floors have also been laid, and sanded, filled, waxed and polished.

The dormitory of this building was in very bad condition. The ceilings were down in several places, great large pieces of plaster had fallen off the walls, floors had been water soaked and rotted in many places, and the arrangement of the rooms did not permit of proper ventilation. Plans were laid out for remodeling the entire floor. Doors leading to the main hall were enlarged to 6x8 feet archways. Archways from one dormitory to another were then cut in, making it possible for a complete circulation of air throughout the entire floor. All wood casings were removed from doors and windows and metal corner bead and metal quarter round was installed. The wood base board was removed and replaced with cement. All the rooms were then plastered, and painted. New oak floors then laid, sanded, filled and polished. This makes this dormitory very attractive. The beds in this dormitory were white-enameled. This enamel had been scraped and chipped off in many places which caused them to look shabby. A force of boys were put to work scrapping off all the enamel to the original metal, which was then given a spray coat of aluminum lacquer. The beds now look like new.

The third floor of this building was for years used as a store room for old furniture. By remodeling these quarters a very fine three-room apartment has been provided.

The stairway from the dormitory to the first floor has been entirely rebuilt. Matipave treads were installed and metal nosing, fabricated in our sheet metal shop, was installed on each tread enhancing the appearance and adding many years of service to the stairs.

The basement of this building has not as yet been finished. Some carpenter work, plastering and painting will make this room complete.



## COTTAGE "B"

This building has had its share of the remodeling and repairing also. The boys' recreation room has been replastered and painted. The walls were coated with Craftex and were then painted with blended colors in the same manner as some of the other buildings. New electric wire and conduits have been installed throughout the entire building. The fixtures in the recreation room are of the semi-incandescent type and give a very pleasing soft light. Outlets have been installed along the walls, close to the floor, for radio, floor lamps or other appliances. New plumbing has been installed throughout the entire building. A two-pipe heating system has also been installed and is now giving satisfactory service. The dormitory has been completely worked over, all wood casing around doors and windows have been removed and replaced with metal corner bead or quarter-round. The old tin ceiling has been removed and replaced with wire lath and plaster. The walls which were in bad condition have been replastered. The painters have given the entire room at least two coats of paint. The floor in this room was not changed at this time on account of the poor condition of the beds which have no casters. New beds will be purchased when funds are available and then a new floor will be laid. The officers' apartments in this building have also shared in the repair work. Tin ceilings which were in very poor condition have been replaced with metal lath and plaster. Walls in very poor condition were replastered. New electric fixtures and plumbing were installed. The basement of this building is not completed at this time. Plans for the near future call for a new plaster ceiling to replace the present wood one and walls to be plastered and repaired. When this is finished the painters will paint the entire room.

## COTTAGE "C"

This building is now being remodeled. New plumbing and plumbing fixtures are being installed where needed. A two-pipe steam heating job has just been finished. The electricians are now rewiring the building from top to bottom. In the dormitory all wood casings, and base boards have been removed and replaced with metal, the old tin ceiling has been removed and replaced with wire lath and plaster. The walls have also been replastered where needed. The entire room has been painted and is now in first-class condition with the exception of the floor which has been allowed to remain on account of the poor condition of the bedsteads which have no opening for casters and cut into the floors. These beds should be replaced when funds permit. A new floor will be installed when this change is made.

The recreation room has been replastered and is now being given a coat of Craftex. This too will receive a three-color job, in oil paint, colors to harmonize and blend. Semi-incandescent lighting is also being installed. The floor in this room is in fair condition and will be

sanded, filled, and polished. Sanitary drinking fountains and toilet rooms will be a part of the rehabilitation program. The basement of this building is now being worked on by the plaster force. A new ceiling and new walls will replace the old floor joists that up to this time constituted the basement ceiling. New wash troughs and floor drains are being installed, which will keep the floors in more sanitary condition. All light wires are being placed in conduit.

### SCHOOL BUILDING

This building was originally built for use as a dormitory building, and has not been suitable for school purposes. During the summer vacation of 1931 considerable remodeling was done to make for better school conditions. A new floor plan was carried out. Some partitions were removed, others installed in a new arrangement which resulted in better seating, more light and better accommodation. The entire school building was painted in soft colors. The stairway has been remodeled and is now in first-class condition. The plumbing has been thoroughly gone over. New flush tanks replace automatic valves and new traps and floor drains have been installed at various places. The heating system has been completely overhauled, a two-pipe steam system replacing the old one-pipe system. Electric wiring in this building is all in conduit.

During the summer of 1933 this building will have a general remodeling. The seats will all be removed from the floors, and then cleaned and varnished. The floors will be sanded, filled and polished. Walls and ceilings will be painted.

This building also houses Company "E." The recreation and wash room being in the basement. This room has been painted and rearranged for better accommodation. New chairs and new tables having been installed. The company dormitory is on the third floor and will come in for its share of repairs in the near future. Some plastering will be done and the entire room will be painted. The floor will be sanded, filled, and polished.

### COTTAGE "D"

This building has not as yet had its share of remodeling and repairing, but, according to present plans, this work should start about the middle of January. The work as laid out will include the installation of a two-pipe system for heat, the remodeling of the present plumbing system and installation of new fixtures where needed. The dormitory, recreation room and basement will be replastered where needed. The floors will be sanded, filled and waxed. The recreation room will be given a coat of Craftex and then painted in three-tone colors. When the plastering and carpenter work has been finished the entire interior of the building will be painted.

### OFFICERS QUARTERS

This is one of the oldest buildings on the grounds, and since it has not had the proper care in past years it needs extensive repairs. During the past eighteen months a good start has been made towards putting this building in good condition. Three rooms have been replastered and the entire interior of building has been painted. The plumbing, although old, is in fair condition. New fixtures having been installed where needed. This building has a tin roof in fair state of preservation, and was given a coat of red roof paint during the past summer.

Respectfully submitted,

FRANK WATERS,

Director of Vocational Planning.

## Report Of Medical Director

The annual report upon health conditions and medical work done at the school this year is favorable.

While one death did occur among the boys, the number of cases of serious illnesses and severe injuries has been much less than in former years and the general physical standard has been noticeably higher.

About the same number of boys have been admitted to the hospital as hospital patients as last year, but the necessity for this has not been as urgent as many of them were so slightly ill they could have been designated 'duty' had there been occasion to do so and others with chronic ailments such as asthma, rheumatism, etc., were carried 'hospital' when formerly they would have been designated 'light duty' and detailed to their company. The number of boys reporting on sick-call each day this year has been less and many of these had the most trivial things wrong with them. No attempt to limit the number of boys reporting on sick-call each day is made. If they have the slightest thing meriting attention their company commander is very properly willing to enter their name on the sick-call book and only in a few cases where a boy seems to get the habit of coming constantly with obviously nothing wrong is he dissuaded from doing so. The hospital has rare cases of the opposite extreme. Now and then some boy who is really ill and in need of attention fails to request that his name be put on the sick-book, and it is only through the observation of the company commander that these cases come to my attention.

Of the contagious and coruptive diseases of childhood (and we are dealing with children exclusively) we have had one case of mumps. We are always fearful and constantly on watch to guard against an epidemic of one of these diseases.

The one death that occurred at the Colorado General hospital followed an operation for a gangrenous appendix.

If anyone desires proof of the value of the school's diet, routine exercise and regulation of living he needs only to watch a company of boys marching past. They are a healthy, robust looking group. So many under-nourished boys are received from poorer class of homes but they all rapidly improve in physical condition under the healthy environment and administrative regulations at the school. They eat and they work and they play under intelligent supervision—a thing often overlooked in private homes.

New boys are isolated as far as possible, given a complete physical examination, immunized against smallpox and diphtheria and an effort is made to correct all existing defects.

There has been no change in the hospital's system of records. An accurate physical record of each boy is kept, along with the other papers of record at the main office, and a complete record of each boy's illnesses and injuries is available from the company sick-books used on sick call. When a boy is admitted to the hospital the data pertaining to it is entered upon his 'hospital card.' On his release from

the school these records are permanently filed and may be utilized for reference any time in the future if needed.

It is too bad that the school was troubled with water shortage last summer so that the hospital grounds could not be made as attractive as usual. The hospital being an old building, has been constantly undergoing repairs and remodeling for several years and the work that is being done now should make it a very nice building and will not need any more work done for a long time. The arrangement whereby the diet kitchen will have an outside door, will be very convenient.

The number of boys reporting on sick-call up to December 1st was 4439, making a daily average of 13¼. These cases comprise all boys who have had their names entered on the sick-book for some reason and who were not ill enough to be marked 'hospital.' No attempt is made to tabulate all these cases but they are mainly trival injuries, illnesses, special examinations, dental inspection, etc.

The number of boys admitted to the hospital up to December 1st was 417 and they spent a total of 2295 days in the hospital making a daily average of number of boys in hospital of 6.85. Ten of these cases were chronic and they alone spent 821 days in hospital, so the other 407 boys spent the remaining 1474 days.

Twenty-five boys were sent to the Colorado General hospital: Nine for refraction of eyes, one for tonsillectomy, five for appendectomy, one for herniotomy and nine for observation and special treatment. Four boys were sent to the Psychopathic hospital for examination.

Eighty-one boys were given dental service in Golden.

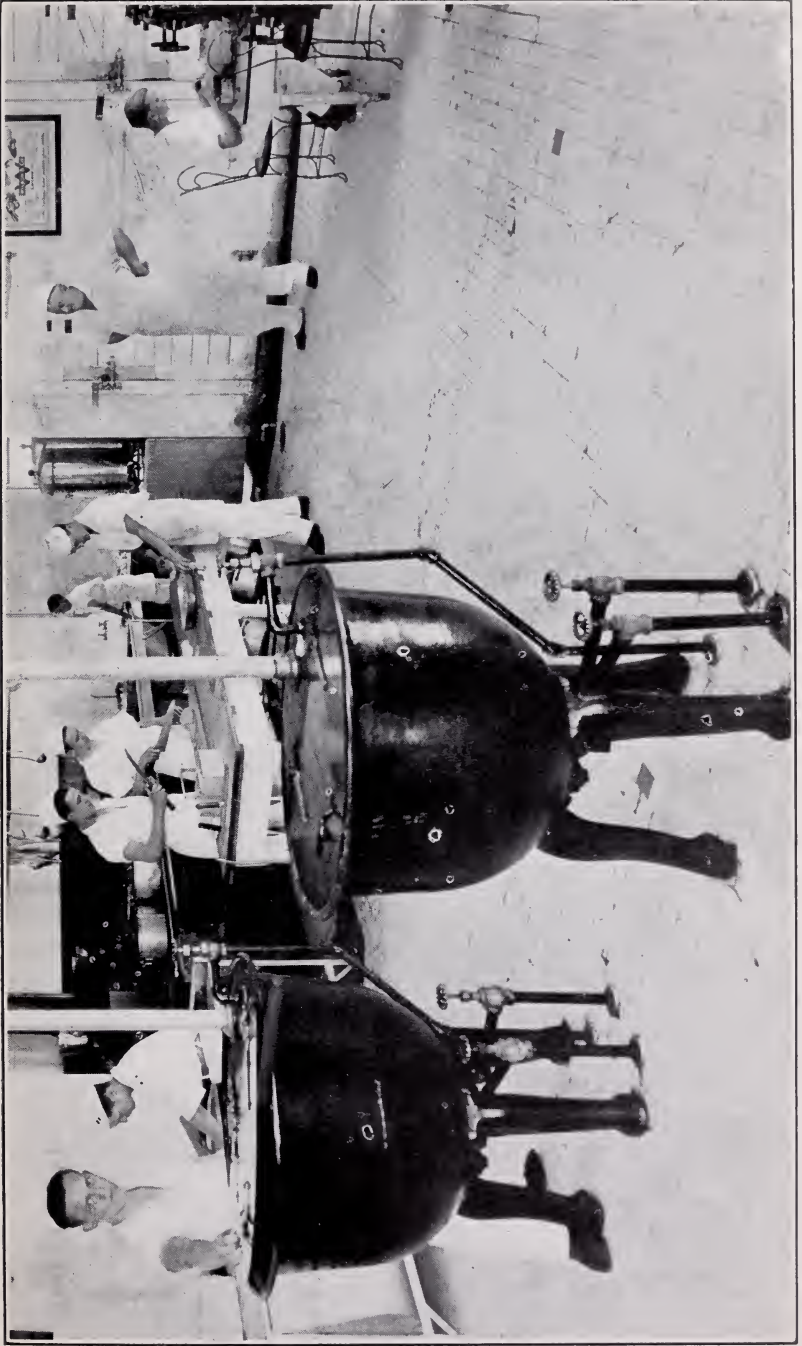
A tabulation of the number and types of cases taken care of in the hospital follows:

Articular rheumatism .....	4
La grippe .....	196
Observation .....	9
Hernia .....	1
Infected sores .....	15
Burns .....	3
Severe bruises .....	18
Asthma .....	2
Dorsal slit .....	1
Lacerations .....	12
Sprained ankles .....	10
Gastro-intestinal dis. ....	64

Lymphadenitis .....	3
Simple conjunctivitis .....	2
Pediculae .....	7
Simple urethritis .....	1
Scabies .....	3
Toxoid reaction .....	3
Chronic endocarditis .....	4
Boils and abscesses .....	11
Tonsillitis .....	8
Irritation of appendix .....	6
Osteomyelitis .....	4
Chronic otitis media .....	10
Broncho-pneumonia .....	2
Post-operative .....	7
Pemphigus (simple) .....	1
Injury (fall) .....	1
Chorea .....	2
Laryngitis .....	4
Colle's fracture .....	1
Mumps .....	1

Respectfully submitted,

E. W. KEMBLE, M. D.



BOY COOKS PREPARING MEALS



OFFICERS DINING ROOM





RECREATION HOUR



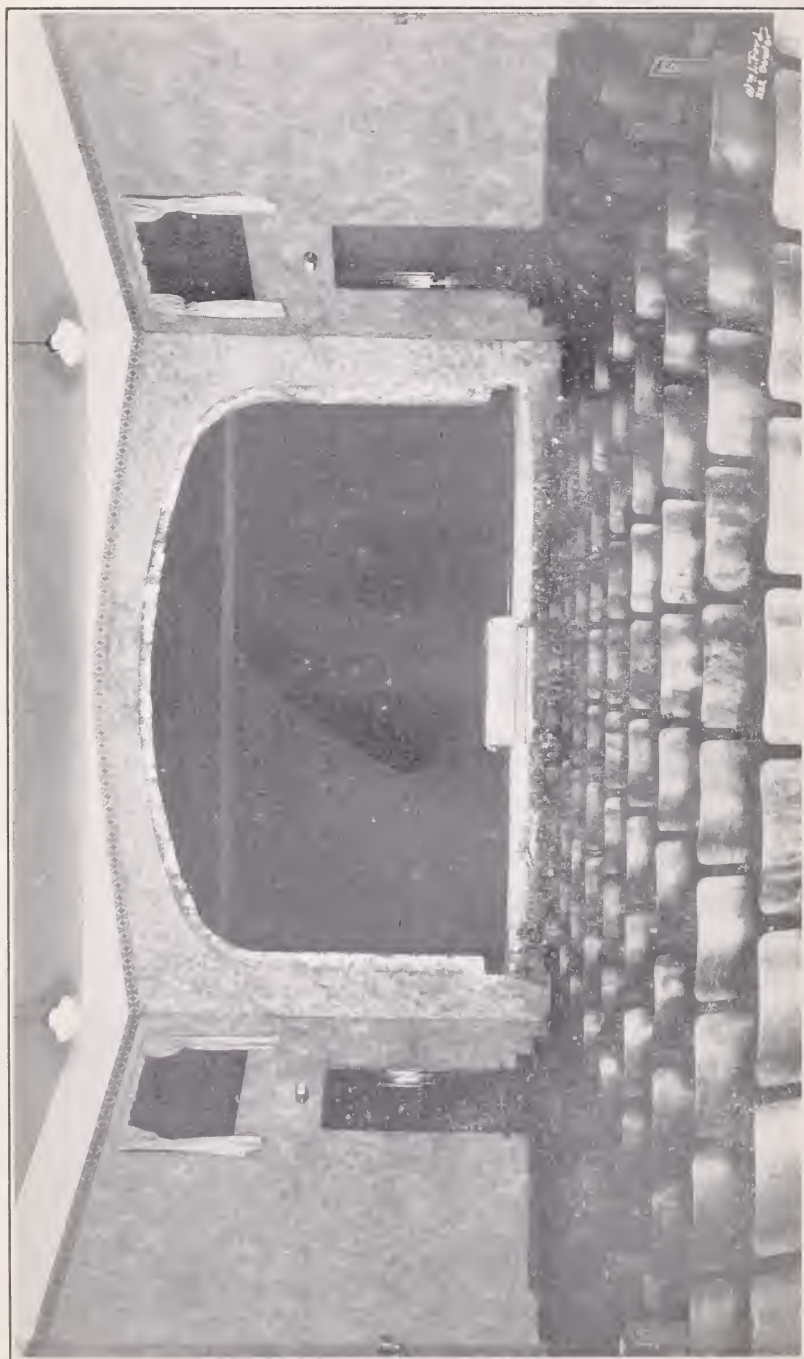
A NEW DORMITORY



FLOWER GARDEN



HOSPITAL



THE LITTLE THEATRE



THE GYMNASIUM



THE SWIMMING POOL

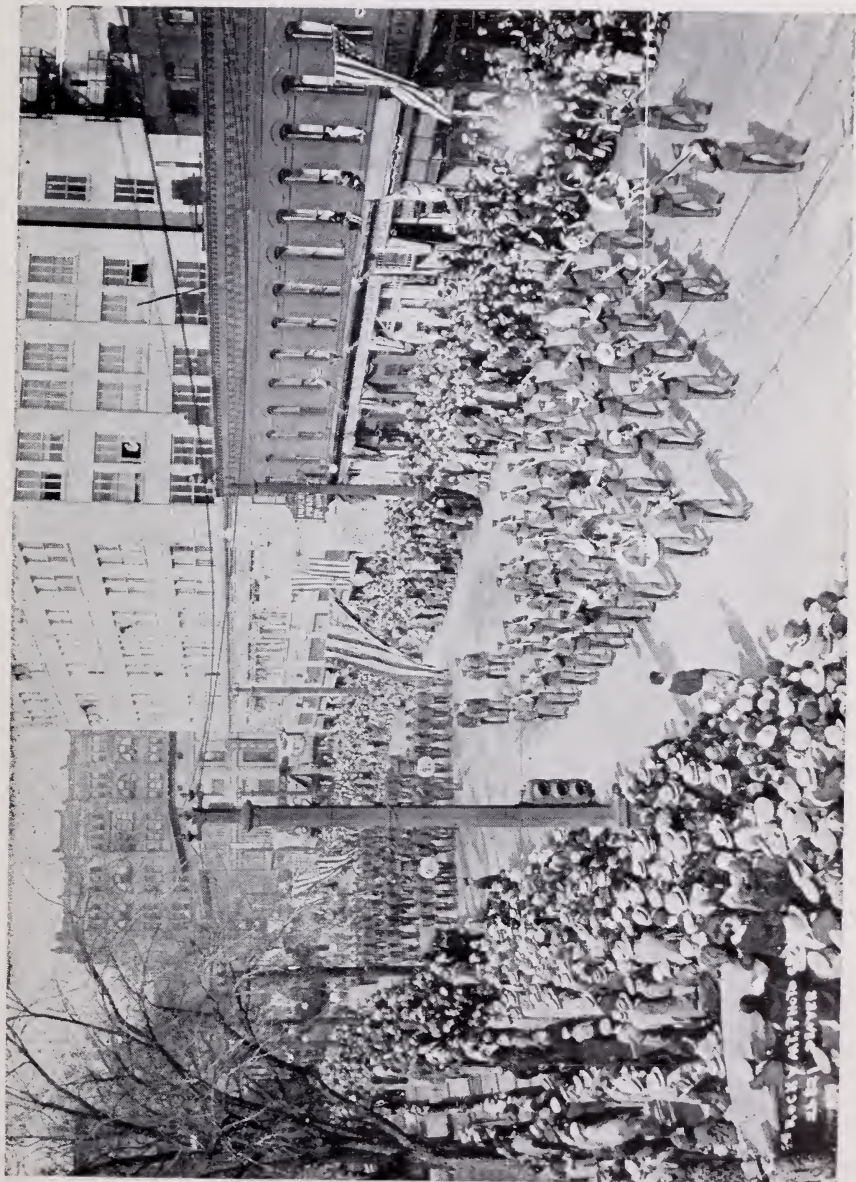


A CLASS IN HAND CRAFT



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