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COLLEGE BULLETIN

PUBLIC SCHOOL EDITION

NUMBER 13. MARCH, 1906.

Issued Quarterly by the College of Industrial Arts, Denton, Texas.

Entered April 19, 1905, at Denton, Texas, as second-class matter, under Act of Congress of July 16, 1894

Information Regarding Appointments To the College of Industrial Arts

Located at Denton

COLLEGE OF INDUSTRIAL ARTS.

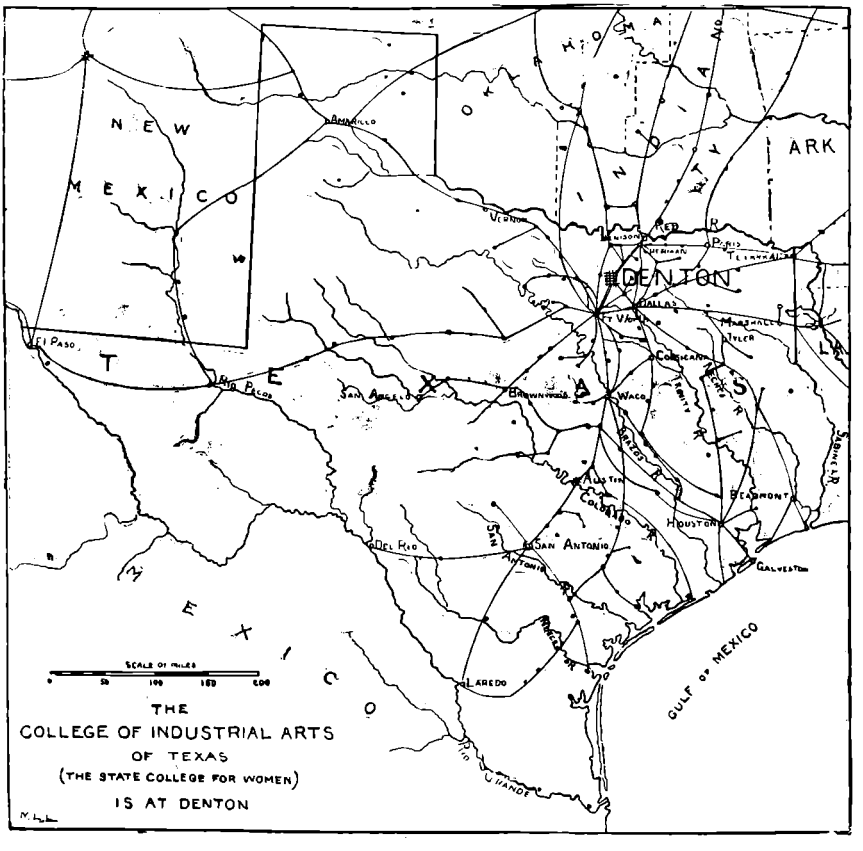
W. B. Spencer

AUDITOR.

Third Term of Third Year Begins March 20, 1906

THE STATE PRINTING CO. AUSTIN, PRINTERS AND BLANK BOOK M'F'RS

For rules governing appointments see page 50.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COLLEGE OF INDUSTRIAL ARTS
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(THE STATE COLLEGE FOR WOMEN)
IS AT DENTON

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INFORMATION REGARDING APPOINTMENTS

TO THE

COLLEGE OF INDUSTRIAL ARTS

(FOR YOUNG WOMEN)

LOCATED AT DENTON

THIRD TERM OF THIRD YEAR BEGINS MARCH 20, 1906.

AUSTIN, TEXAS
THE STATE PRINTING CO.

ANNOUNCEMENT.

This number of the Bulletin contains information of special interest to friends of our public school system, relative to manual and industrial training in public schools, features of the work of the College of Industrial Arts, appointment of students to the College, and admission of students on credentials without examination.

Particular effort has been put forth to place this Bulletin in the hands of school officers, principals, teachers of the higher grades, and high school students. Copies will be sent to others on request.

Girls who will complete their public school course this spring should read the entire Bulletin. All who think of attending the College of Industrial Arts should read "Accredited Schools" on another page, and fill out and mail "Information Blank B" in the back of the Bulletin.

The June number of the Bulletin will contain the courses of study of the College in detail.

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MODERN EDUCATIONAL DEVELOPMENT.*

MRS. L. H. POTTS.

In this age of specialization, thorough preparation for life-work is imperative. Each industry, each craft, is calling for the man and woman who not only knows, but knows how to apply that knowledge. Applied science is the golden key to business success. That this truth is being recognized one can not doubt. A comparison of the registration lists of some of our prominent school centers demonstrates its truth. Harvard shows a loss of 130, while the Andrew Carnegie School of Technology, opened in Pittsburg last September, had 7000 applicants for admission, while it could only admit one-fifth of that number. Yale, Cornell and other universities are making provision to meet this new demand. The time has passed when we may deck ourselves with knowledge and wear it loose from the nerves and tissue of heart and brain. This is an age in which labor is dignified and lifted above the sordid by an intelligent appreciation of all that contributes to the safety and comfort of humanity. Recognition is given the artisan as well as the artist. The man who can make a perfect nail will find himself in demand; while there may be no place for him who can write but an indifferent ode. It is the man and the woman with no special training who easily drift into vice, shame and crime. The victim of a chance development, or a purposeless education, is seldom fortified, and his life becomes a sad surrender to opposing forces.

History is determined by the home life of a people. There is an awakening—the wonder is that it has not come sooner—to the fact of a mutual obligation in the practical duties of home life. Homes have been wrecked because the wage-earner, or the home-maker, took upon themselves the sacred trust of its perpetuity with no reserve capital of preparation. Competition demands accurate knowledge in the trivial details of commercial and mechanical enterprises; but in how few homes do we find any intelligent understanding of hygiene, sanitation, household economics, or home esthetics? The mother who sends forth the husband, the sons and the daughters physically strong, and with a wholesome mental poise, is recording the best in our country's history.

The converse is equally true. The incompetency of many a wife and mother has been the source of crime and tragedy. There was a time when indolent ignorance was considered a grace, and languid invalidism a badge of aristocracy. Truer ideals mark the present times. No longer is the red blood of perfect health thought unmaidenly. Conviction is growing, among thinking people, that education should cease to be an ornament alone, to our daughters, and become instead a practical asset. With the safeguard emanating from a thorough and practical equipment, she is no longer the plaything of a chance fortune, which may make her

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*An article published in the "King's Messenger," Dallas, February, 1906. Mrs. Potts is President of the Woman's Home Mission Society of the North Texas Conference of the M. E. Church, South.

an unhappy wife or strand her upon the shores of life with that appalling number of young women whose lives have been wrecked because of that lack of preparation which could have secured for them an honest living, and would have removed them from dangerous environment.

The young woman whose education has been based upon efficient scholarship, together with domestic and industrial training of a practical type, brings into the marriage relation a comradeship, which grows out of her ability to sustain her part of the partnership. It is a womanly instinct to want to enter her legitimate realm—the home. Equipped with the training which gives her a righteous sovereignty, the integrity of that home is assured. Is it not worth our while to promote as many such homes as possible?

There are some women who cannot surround themselves with the security of home and there peacefully work out life's problems. An ever-increasing number are finding it necessary to enter the industrial and commercial fields. A preparation which commands for them a living salary is all the more imperative. We must protect our young women by putting such training within the reach of each.

There is another class who make themselves homeless that others, through them, may know the true meaning of home—the Christian worker. She must have the well-rounded education which will fit her for a many-sided work. If she is to elevate the home-life of the people with whom she labors she must have the knowledge of all that pertains to the model home. She is the emergency nurse and physician. She must be able to teach manual industries as well as home ethics. But beyond all, and above all, she must know to bring these people to Christ. Where may she learn all this? Texas has partially answered this question in the establishment of the College of Industrial Arts, where we find culture of the highest order and scholarship of the most efficient kind combined with domestic and industrial training of the most modern and practical type. It remains for our Home Mission Society to complete the answer. The College of Industrial Arts is equipped with a fine faculty of Christian men and women, with whom daily contact means development of character to the student body; yet, being a State institution, religious training and Bible study must have a circumscribed place. President Work thus summarizes the mission of this institution: "We want to meet the need of our times in training women who will be competent, intelligent and refined; well fitted for self-support, if this should be necessary; thoroughly prepared for woman's work in the industrial and commercial world, if they so choose to labor; well trained for companionship with worthy manhood and for motherhood, when this is desired." Nothing could be better as far as it goes. Machinery may be magnificent in construction and perfect in detail, but before it fulfills its destiny it must be brought into connection with a potent force which shall give it motive power. The cultured mind and the trained hand must be vitalized by Christian dynamics.

The Home Mission Society, in looking to the establishment of a dormitory at Denton, had the object, primarily, of furnishing Christian workers with the training afforded by the College of Industrial Arts. This would have entailed an expense in maintaining. So the purpose grew to make it self-sustaining by enlarging our plans to accommodate as many

students as possible. Our desires have grown so large that we would be happy could we open our doors to every student who matriculates. This we may not hope to do, but on September 1 we will be ready to offer to about fifty young women a distinctively religious home, where a course of Bible study will be open to any who so desire. A distinctively religious atmosphere will be preserved, but each young woman who comes to us will be encouraged to preserve her individual church relation. Sectarianism is no part of the plan. The business sense of thus availing ourselves of the State's equipment and annual appropriation for this institution must commend itself to the church at large.

The Dormitory will be under such management as the W. H. M. Society of North Texas Conference may from time to time appoint. It will be built on a beautiful site of eight acres owned by this society. There will be, we have every reason to believe, a perfect understanding and co-operation between the management of the Dormitory and the College of Industrial Arts. All possible occasion for friction has been carefully eliminated.

This plant will demand an outlay of $25,000. Will the liberality of our people be commensurate with the urgent need we have tried to set forth?

The mothers of Texas could build no nobler memorial to the daughters of our fair State than to give largely to this enterprise. There should be at least five who would give five thousand each, but if only one can be found who will, there still remains the twenty thousand which should be covered by as many contributors. Dear friends, send in your offerings—small and great—at once, to Mrs. H. E. Jackson, 243 Worth Street, Dallas, Texas.

DOMESTIC SCIENCE IN ITS ETHICAL RELATIONS. *

MISS MARTHA T. BELL.

Let us consider what is meant by domestic science, or domestic economy. One has said it includes a study of the agents, the materials and the phenomena of the household. Let us pause a moment to consider the words, and think of the magnitude of the subject.

The agents—light, heat, sound, electricity, color; the materials, the are we breathe, the food we eat, the water we drink, and the houses we live in. Who will complete the list?

Let us begin with the statement that principles are universal, their application special and peculiar. The same general laws of heat are as true for the range as for the steam engine.

The painter, decorator and dyer each has a technical interest in color, but the woman who desires to beautify her home, and add the charm of personality in the harmonious blending of color and materials, must regard the same principles that govern technical work.

By Domestic Science we mean largely applied science. Just here is

*"Friday Lecture," College of Industrial Arts, December 8, 1905.

the uncultivated field in woman's education. Our colleges were quick to see the need and make its application in its work for men, so that now those who desire to specialize have their wants supplied in the many technical schools throughout the land. That this want was greatly felt is emphasized by the thousands of young men enrolled in colleges and technical schools.

Farmers quickly seeing the benefit science was to them, sent their sons to agricultural colleges to study physics, bacteriology, and chemistry, that they might aid in the dairy, in soil work and the proper selection of foods for cattle.

Woman has been slow to recognize the relation of science to household affairs, yet why should she not make application of her chemistry in making bread—of bacteriology as it pertains to fermentation? Woman has at last awakened to a sense of her heritage, and the educational world has awakened to its importance. This is proved by the fact that such schools as Toronto University and Columbia are introducing Household Science as a regular course for university degrees, and we would urge that this work should grade down from the university through the college and public school.

We dissent from the college graduate who essayed to criticise in a New York paper the President's address to the Congress of Mothers last year, in saying "Woman can learn the simple arts of housekeeping and sewing when she needs them."

Artemus Ward, speaking of a certain man, said, "He did not evince any signs of intelligence until he was forty years old, and he never did after." I very much fear that our college woman would display a similar deficiency in "picking up the simple arts of sewing and housekeeping."

It is because so many women assume this attitude toward the home and home-making that numbers of families are driven to boarding houses, apartment hotels, and many men to their clubs, whose proprietors and stewards do not regard the culinary work as a simple art than can be taken up at will, but as a life study worthy of their best efforts in a business and intellectual way.

The boy who thinks that Greek, Latin, mathematics, astronomy and literature are the essentials of a liberal education and that he can take up at will the simple art of running a bank or organizing a factory on a business basis, may find himself walking at the end of life to the poor-house unless his father thought differently and accumulated a bank account for him. Knowledge of these subjects does not constitute a bar to any one's success, but is a desirable attribute to the four-square man who makes his business both a study for life and a life study.

Ruskin says "A thing is worth precisely what it can do for you, and not what you choose to pay for it." What more pertinent application than here? That education fails to educate which regards the means as of greater importance than the end to be obtained. If our Latin, Greek and Chemistry have not made better citizens of us, our education has fallen short of the highest ideal.

Just as Domestic Science, in its many ramifications, involves all the sciences, so in its ethical relations it underlies the entire social structure, the nation, the State, the school, the home, using as its agent the individ-

ual upon whom its influence is paramount. Who will controvert this statement?

Aside from environment and heredity, food is the greatest factor in determining the individual's efficiency. An ill-balanced diet, either underfeeding or overfeeding alike is disastrous in effect. It is unnecessary to show that an ill-nourished brain is one from which good work can not be expected. The bad effects of poor feeding fall most heavily upon the young, for the greater the demand for food the greater the was felt. Hippocrates recognized this truth and devoted a special aphorism to the statement, "Old men bear want of food best; then those that are adults; youths bear it least, most especially children, and of them the most lively are the least capable of enduring it."

The effects of insufficient feeding in resistance to cold are strikingly seen in the various Arctic explorations.

Its effects in producing liability to diseases as relapsing and typhus fever were seen years ago in the potato famine in Ireland, and similar results were witnessed in India, fever and plague following famine. Tubercle bacilli find an especially good soil in ill-nourished persons, while epidemic opthalmia selects the underfed as its victims.

Another effect of underfeeding is its influence upon the mind, not as to its inefficiency but to the feeling of discontent, discomfort, and depression, sometimes culminating in hallucination and madness due to imperfect nutrition of the brain.

The proverbial good humor of a man who has just dined is due to the fact that he is well fed while the recognition of the contrary status has passed into the proverb "a hungry man is an angry man."

Dr. King Chambers graphically describes the dangers attending such conditions in the following passage: "Deficient diet, like all morbid conditions corporeal and mental, is a vitiating and degenerating influence. Famine is naturally the mother of crimes and vices, not only such as will satiate the gnawing desire for food, but of general lawlessness, ill temper, avarice, lust and cruelty.

The love of purposeless destruction exhibited by the Parisian Communists in our own day may be fairly credited to deficient food. No well-fed people could have wrecked the Vendome Column or burnt the Town Hall and Tuileries of which they were so proud. They were like hungry children smashing their dolls. And Thucydides, Boccaccio and Defoe are all agreed as to the hideous wickedness exhibited at Athens, Florence and London during their famine fevers. The exceptional instances are those where individuals or nations have conquered by courage and self-restraint their natural selfishness, and have made the interests of others paramount to their own."

But the cause of these plagues and of such instances of lawlessness lie in the environments of the home, or worse still in the lack of homes with proper conditions for home-making and housekeeping.

Just here we need to inquire what is good housekeeping. One has said, "Good housekeeping is the art of domestic proportion, of maintaining true values between the needs of the home, the domestic capital of body, purse, and brain, and the rights of the laborer who volunteers to minister to these needs."

I once had a little acquaintance who spent her days with one of my

friends. During one of these visits a trivial occurrence happened which my friend thought would not impress a child so young. Soon the little one referred to it. The lady, in surprise, remarked: "Why, Fannie, I did not suppose you noticed that." Whereupon the little one gravely replied: "You see, Mrs. Clark, when I get up in the morning I open my eyes and keep them open all day long." What an acute observer and observation.

Now, should we keep our eyes open all day long, how many households could show a true proportion between the needs of the home, the domestic capital of body, purse, and brain, and the rights of the laborer?

In its relation to the home, Domestic Science is fraught with most influence upon us—the great middle class. Like Cain of old, we may exclaim, "Am I my brother's keeper?" and conditions answer emphatically, "Yes." For the very poor are too intensely absorbed in the problem of bare existence, while the very rich are engrossed with the pursuit of limitless luxury and personal pleasures.

Family co-operation is one of the arts of peace frequently overlooked in the adjustment of domestic proportions. I mean not only that the daughter and mother should share in the household duties and responsibilities, but the father and son should have a working knowledge of the simpler arts of the kitchen. We are frequently hearing of mother's duty of training a girl for a wife; why not as frequently of training a son for a husband?

Emerson says there are three things every boy should know—how to row a boat, how to harness a horse and how to prepare his own dinner. Emerson's desire is in part being realized, for in New York City and Brooklyn classes in cooking for men have been organized and a large attendance has been registered. Now I do not advocate a man giving his time to household duties to the neglect of his legitimate work—that of bread-winner—while perchance his wife is the proverbial beneficent almoner, society or club woman; far from this. But I do not think a man should know something of the multitudinous duties incident to a home, thereby giving him a vital sympathy for the woman who is harassed by the pexplexities and annoyances of an unsystematized financial concern.

Again, if a man knows the limitations of his kitchen in utensils and conveniences, he will find time or money to make or purchase the necessity which means so much to the weary housewife in economy of energy and time. If more men gave thought to conveniences in the home there would be fewer architectural blunders from a domestic view point.

Being interested in the introduction and procuring of varieties of foods from considerations of health, economy and delicacy, he will find a new interest in legislation bearing on the purity and wholesomeness of the people's food. He will thus co-operate more heartily with the press and the school in the dissemination of rational ideas on diet as relating to the health and to the moral and spiritual welfare of the commonwealth.

Having an intimate knowledge of the unstable qualities and the adaptability as a media for carrying diseases of such materials as meat and milk, he will endorse laws requiring more rigid official supervision

of meat markets and dairy herds, particularly if he has been compelled to buy meat in a foul-odored market.

"In a multitude of counselors there is safety." This is particularly applicable to household expenditures. Knowing one's monetary limitations will act as a check in household outlays where ignorance of this status results in family disagreements which probably might be avoided were frank conferences held on this subject. Thus a business-like basis may be assumed more readily through the influence of one whose routine is systematized, be that person man or woman.

There are those who advocate the co-operative kitchen where all food is bought and prepared in large quantities, thus relieving the housemother of all domestic duties. Objections to this are numerous, the prime reasons being, the privacy of the home-table is sacrificed; this is virtually the entering wedge for the destruction of the individual home, the place which should be nearest Paradise on earth, a hint of the Eden of the past and a prophecy of Paradise regained. Again one's personal tastes can not be regarded. This point may be illuminated by the following incident: A gentleman of fastidious taste was accustomed to deal with a tailor of high repute. Beguiled by a specious advertisement which offered an overcoat at half the price he usually paid, he fell a victim and had his measure taken. When the overcoat was sent home he tried it but found that there was an intangible something about it which displeased him. Despairing of satisfactorily settling the matter himself, he carried the coat to his tailor and made humble confession of his sins. The great man was magnanimous and received him as one who returns to the fold. He put his head to one side and eyed the offending coat with the penetrating eye of the sartorial artist. He looked at the back. "The cut is all right." He looked at the front. "The fit is all right," he said; "but"—there was a long pause during which he formulated in his mind exactly why the garment did not reach the level of his own creations. Then with a burst of inspiration, he spoke: "But it lacks expression." So with the bought cake and bought bread. The material may be good—the baking good—yet one instinctively feels that it has been turned out by the hundred weight and *lacks* the personal equation which differentiates the hand-made product of the chef from the machine made cookery. Yet, we would heartily accept this lack of expression in preference to the diabolically malign expression with which the poor cook sometimes inspires her productions—but need these things be?

Mrs. Gilman in an article in the Cosmopolitan advocates the passing of the American home and in its stead the substitution of the apartment hotel. She says: "In the very face of this rushing progressiveness we find at times the strangest pools and eddies, dull back-waters where the driftwood of past seasons floats and moulders like wrecks in the Sargasso Sea. Everything else has passed and without wailing; passed as must all rising life, "from the less to the greater from the simple to the complex." It is from the self-centered family life with its members and its immediate neighbors, to a family life that is by no means content with its members, that knows not its neighbors, though they be as numerous as cells in a honeycomb, and that insist in finding its pleas-

ures and interests in the outside world. Again, "the woman is narrowed by the home, and the man is narrowed by the woman."

As a contrast, in The Woman Errant Dr. Russell says: "Home love is individualized patriotism and it is only through having a home to love that the immigrant of any grade, whether he comes over in the cattle-boat or the captain's deck suite, can be expected to yield obedience to an alien land. Therefore, every cult or culture that belittles the home and places it second to any other ambition is the sower of anarchy, be it ever so cleverly disguised in all the garb of advanced thought."

Which shall it be, the passing of the American home or its firm establishment as the impregnable fortress of family love and patriotism? Domestic Science will *aid* in answering this question.

Regarding the rights of laborers we would quote this commendable advice by Charles Reade: "Put yourself in his place." This injunction should be co-operatively administered by every maid, master, and mistress. It will lubricate the wheels of the domestic machinery as no other application will. While the millennium in the domestic service problem will not be attained by this observance its dawn will be sensibly brought nearer.

Fifty years ago life was simpler. Our grandmothers were interested in the development and rearing of their own children and the beautifying of their own homes and lives. To the complexity of modern life woman has added broader interests, broader culture. She is interested not only in the mental, moral, physical and spiritual development of her own children, but her horizon includes her neighbors less fortunate and their children to whom her sympathy and uplifting work is extended. The passionate love for beautifying her home is more inclusive, passing on to her city or village improvement. This desire takes tangible form in parks and playgrounds for children, the establishment of college settlements, sewing and cooking schools and gymnasiums.

Every week one sees instances in papers of a broader love for humanity which necessarily finds concrete expression in ministering first to man's physical comforts.

This potency for good of an act of brotherly kindness was illustrated recently by the work of the Bible Training School of New York. The yards for the construction of the New York Central Railroad stretch for blocks and blocks away opposite the school. Each day at noon hour the men were observed sitting on rock or plank eating a cold and uninviting lunch. The kindliness of the school found practical expression one cold January day in a procession which left the school kitchen with cups, saucers and boilers of hot coffee. The men could hardly believe any one could wish to give them this welcome addition to a meal. They thought they were being ridiculed and looked suspiciously in the bottom of their cups for pledges or invitations to prayer meetings. As nothing more was forthcoming they grew appreciative of this kindness and the cheery words of the manager as he dispensed coffee at midday and midnight.

On the Sunday following, a committee of the men visited the school to know if the coffee could be had as usual. The manager replied, "We do not approve of work on Sunday." "No more do we," they replied,

"yet we must work or lose our job." "Very well, the coffee will be there." A short time after the school was asked to serve a lunch at moderate cost, which they did. It is gratifying to learn that on the first pay day after the coffee was served every man was in his place, whereas before this many were incapacitated or laid off through drink. This work was begun merely through kindness and with no thought of fighting the saloon or in the name of temperance.

A similar work is that of the Church Temperance Society of New York City, its object being the removal of the causes of intemperance, and one of its work being the maintenance of two coffee vans. One of these, the coachman's coffee van, follows an English custom. A hostess giving a large entertainment orders the van to dispense hot coffee and sandwiches to the coachmen who wait outside in the cold for her guests. Another van during the coldest months of the year stands by the loop at the New York postoffice where the motormen slacken up before beginning the long return up town, each receiving his hot coffee before starting off again. This van also answers calls to long fires where the men remain on duty for hours. The street cleaning commissioner also has made use of the van when the storms of two years ago demanded long and hard work of the men. The coffee van and lunch wagon seem to be potent factors in solving the liquor problem.

We have legislation against the cigarette habit—would not this evil die of itself if we put something better in its place—the soup kitchen, the lunch room—where the hungry mouth may satisfy a ravenous appetite with plain, nutritious food? There are some children who say they do not care for such plain food; they wish tamales, chile and ice cream. From my observation there is little the average healthy girl will not eat if appetizingly prepared, and the boy I presume is not dissimilar in his tastes. The mother needs to teach the child to like plain wholesome food just as outside the home he is taught to use the cigarette by persistent effort.

This common sense teaching concerning food should begin with the child at home and continue in the schools that the girl may have a reliable knowledge on this subject. By way of illustration, she should know that macaroni is neither a root nor a fruit, but is a manufactured product. She should know how to care for and select the best utensils for the work under consideration. Systematizing, economy of time and material, skill and cleanliness in the performance of work, are all points upon which special stress is laid. The object to be attained by such instruction not being to make a girl so skilled that she may enter the lists as a professional chef, but to co-ordinate hand and brain, to make her more responsive to the things that are, by giving her more points of contact with her environment.

In conclusion, I can not do better than quote Chancellor Burwash of the University of Toronto in regard to the educational value of this work: "I have watched with great interest its effects as an educational discipline in the development of the students who have entered upon it, and I am delighted to find that it is equal, if not superior, to the best of our old courses in this respect. It awakens in the minds of the student an earnest, sustained and growing interest. It directly evokes

the scientific spirit of observation and inquiry. Its literary training, which is the same as that of the old courses, is relieved by the change to the scientific laboratory, and the labor of the laboratory is again made more interesting by the application of its scientific laws to practical work. But above all other results, I value the improved moral tone which rises from the constant relation of the work and thoughts of the student to the highest interests of life. That a woman's entire nature is fitted by the Creator to make her the center and glory as well as queen of the home is universally acknowledged, and in this course her mind is continuously occupied with problems of the home. These she learns to estimate in every detail in the light of the most accurate science, and thus to gauge the tremendous responsibilities as well as the limitless possibilities of her coming life. Her education enables her to understand the transcendent glory of that life work, and thus calls out all the grace and beauty of true womanhood."

EDUCATION FOR THE INDUSTRIES.*

HOWARD J. ROGERS, FIRST ASSISTANT COMMISSIONER OF EDUCATION FOR THE STATE OF NEW YORK, ALBANY, N. Y.

I choose this term because the term "industrial training" is invariably associated in the public mind with manual training, which is not all of what is meant. Education which trains for the work of the world, whether it be the arts, the trades, agriculture, mining, or commerce, is the subject which is engrossing more of public attention than any other in the educational field. The business and commercial world is asking in all seriousness if we can not send out young men and women somewhat better fitted for business conditions. There is no question about those who are to enter the professional and technical fields, but for the workers in the varied industries there is doubt. Social life in this country has grown from simple needs to the complexity of the highest modern civilization, with all the entailed obligations. Our education has grown and expanded with it. When the applications of steam and electricity (from 1830 to 1860) revolutionized the entire social structure, our education changed its form to meet the demands upon it. A revolution in industrial methods is going on today almost as marked, and our educational machinery must be remodeled sufficiently to meet it. Stripped of all verbiage, our country is getting too large, and our needs too complex, to train all children just alike. But the traditions and spirit of our country will not for a moment sanction the establishment, as in Europe, of two systems of instruction—one industrial and one cultural, one for working classes and one for governing classes. Our solution of

*A portion of a "Report on the Educational Progress of the Year," presented by Mr. Rogers at the meeting of the National Educational Council, Asbury Park, New Jersey, July 3, 1905. Mr. Rogers was Chief of the Department of Education at the St. Louis Exposition in 1904.

the problem is forced to be a combination course—the same for all children in earlier years with all that that implies of hope and opportunity, containing enough manual training to benefit all, and an option in the higher years to afford the special training desired for the work of life. How to adjust our machinery to the demands and the conditions, the kind and the extent of schools to be instituted to meet the requirements, are our greatest problems today. The progress of the country under this heading is more in the general acceptance of the idea and the means taken to meet it than otherwise. A catalogue extensive and striking could be made of the commercial and manual training high schools established, the shop work and practice courses introduced in the grades, the technical and trades schools instituted, and the departments of commerce organized in the universities; but it would be only cumulative evidence of the feeling abroad in the land. At the convocation of the University of the State of New York last week the entire program of two days was given to the intensive consideration of this topic, and the ablest experts in the country addressed the meetings. Out of this agitation will come an adjustment satisfactory to our commercial and industrial development, and in harmony with our laws and traditions.

EDUCATION FOR EFFICIENCY.*

WILLIAM H. MAXWELL, SUPERINTENDENT OF SCHOOLS OF THE CITY OF NEW YORK.

The National Educational Association meets in its forty-fourth annual convention at the moment when Japan has given the world another great object-lesson in the value of education. Ever since Napoleon's retreat from Moscow, the world has stood in awe of that massive and mysterious power we call Russia. In that fateful campaign it was not the skill of the Russian commanders or the bravery of the Russian soldiers that wrought the catastrophe; it was the snowflakes—the arrows from the quiver of God—that overwhelmed the might of the invader. Ever since, Russia has gloried in a victory that was not of her own achieving. The world accepted her at her own valuation, and stood in awe. Wrapt in the glamour of an unearned renown, Russia pursued her aggressions practically unopposed, until her empire stretched from the Baltic Sea to the Pacific ocean. There her career of conquest has ended. There, once again, has broken out the irrepressible conflict between ignorance and enlightenment. On the one side stands a people, almost countless in number and rich beyond knowledge in all natural wealth, but ignorant, devoid of initiative, and alienated from their rulers by despotism and cruelty. On the other side stand the Japanese— a people limited in numbers and confined in territory, but born again through the diffusion

*Address delivered at the meeting of the National Educational Association, Ocean Grove, New Jersey, July 3, 1905. Superintendent Maxwell was President of the Association for 1904-1905.

of knowledge and through the universal training for efficiency which has made their inherited patriotism invincible.

Japan has but repeated at Port Arthur and at Mukden and on the Japan Sea the lesson of history—the lesson of Marathon, of Zama, of the Invincible Armada, of the Heights of Abraham, of Waterloo, and of Sedan; the lesson that the race which gives its children the most effective training for life sooner or later becomes a dominant race. Borrowing eagerly from western civilizations, Japan has adopted for her own whatever school exercise or method of teaching gives promise of training for efficiency. Nobly has she repaid her debt to Europe and America. She has demonstrated to the world that the training of the young to skill of hand, to accuracy of vision, to high physical development, to scientific knowledge, to accurate reasoning, and to practical patriotism—for these are the staples of Japanese education—is the best and cheapest defense of nations.

Such are the lessons or war. The history of peaceful industrial effort tells the same story. No nation is truly prosperous until every man has become, not merely a consumer, but a producer. As Emerson most truly said:

"A man fails to make his place good in the world, unless he not only pays his debt, but also addes something to the common wealth. Efficient universal education, that makes men producers as well as consumers, is the surest guarantee of progress in the arts of peace—is the mother of national prosperity."

"But," claims an objector, "this is gross materialism." Not so. The history of the world shows that a nation improves morally and intellectually only as its physical condition is strengthened. The futility of religious missionary effort, when unaccompanied by physical betterment, is of itself sufficient to prove the thesis. Better shelter, better food, better clothing, are the necessary antecedents and accompaniments of higher thinking, greater self-respect, and more resolute independence.

True, material prosperity too often brings with it a train of evils all its own; sensual indulgence or slothful ease, it may be; or the grasping at monopoly and "man's inhumanity to man;" or a feverish pursuit of material things, to the neglect of the spiritual. True, enormous wealth is often accompanied, particularly in crowded centers of population, by extreme poverty. These, however, are but temporary reversions to barbarism—the price we must pay for progress. The best corrective of the evils generated by the accumulation of wealth is not anti-trust laws or other repressive legislation, but a system of schools which provides a training for all that is equal to the best which money can buy; which discovers and reveals genius born in low estate, and enables it to fructify for the common good; and which guarantees to every child the full development of all his powers. The trained man will demand, and will, in the long run, receive, his due share. Education is a chief cause of wealth and the most certain corrective of its abuse. In a community in which every man had been trained to his highest efficiency, monopoly and poverty would be alike impossible.

In the light of these historic truths, you will permit me, as a prelude to the addresses which are to be delivered before the meetings, general and departmental, of this convention, to state very briefly—I do not

venture to say, discuss—a few of the burning educational questions of the day.

The first of these questions is: What does "education for efficiency" mean? It does not mean that every man should be trained to be a soldier. True, the man who is well trained for the duties of peace is, in these days of scientific instruments of destruction, well prepared for war; but military prowess can never become the ideal of education, among a great industrial people. It does not mean merely that each citizen should be able to read the newspapers and magazines, so that he may be familiar with political discussions, and able to make an intelligent choice between candidates and policies. The imparting of such knowledge to each individual is essential in a democratic nation, but it falls far short of the education needed to secure the highest efficiency of each unit of society. Still less does it mean that wretched travesty of education which would confine the work of the public schools to those exercises in reading, writing and ciphering which will enable a boy or girl, at the age of fourteen or earlier, to earn starvation wages in a store or factory. Education for efficiency means all of these things; but it means much more. It means the development of each citizen, first as an individual, and second as a member of society. It means bodies kept fit for service by appropriate exercise. It means that each student shall be taught to use his hands deftly, to observe accurately, to reason justly, to express himself clearly. It means that he shall learn "to live cleanly, happily, and helpfully, with those around him;" that he shall learn to co-operate with his fellows for far-reaching and far-distant ends; that he shall learn the everlasting truth of the words uttered nearly two thousand years ago: "No man liveth to himself," and, "Bear ye one another's burdens." Such, I take it, is the goal of American education.

If this ideal of developing the highest individual and social efficiency of each citizen is the goal of American education, obviously the curriculum of our schools becomes an object of extreme solicitude. Particularly is this the case with the elementary schools, for these contain over 90 per cent of the children under instruction. During the last quarter of a century a great movement for the reform of the elementary curriculum has been gathering strength. The most prominent characteristics of this movement would seem to have been the development of the imagination and the higher emotions through literature, and art, and music; the training of the body and the executive powers of the mind through physical training, play, and manual training; and the introduction of the child to the sources of material wealth through the direct study of nature and processes of manufacture. At first the movement seems to have been founded on a psychological basis. Today the tendency is to seek a sociological foundation—to adjust the child to his environment of man and of nature.

At various times during the past ten or fifteen years, and particularly during the past year, reactionary voices have been loudly raised against the new education, and in favor of the old. Such was to be expected. Reactions follow inevitably in the wake of every reform, political and social. Analysis will show that the reactionary tendencies in education arise from three chief sources:

1. The demagogic contentions of selfish politicians, who see that it costs more money to teach the new subjects of the curriculum than the

old, and that thus a large proportion of the public revenue is diverted from the field of political spoils. These are the men who have invented the term "fads and frills" to designate art, manual training, music, and nature study. It must be theirs to learn that it will require something more than a stupid alliteration to stem the tide of those irresistible forces that are making the modern school the faithful counterpart of the modern world and an adequate preparation for its activities. The saving common-sense of the common people, when deliberately appealed to, will always come to the rescue of the schools.

2. The reactionary tendency is due in part to an extremely conservative element that still exists among the teaching force. For the most part, teachers who are still extremely conservative were themselves brought up chiefly on the dry husks of a formal curriculum. They find it difficult to learn and to teach the new subjects. They dislike to be bothered by the assistance of special teachers. Accustomed to mass work both in learning and in teaching, they regret the introduction into the school-room of arts which demand attention to individual pupils.

3. The reactionary tendency has its roots even among the more progressive teachers in a vague feeling of disappointment and regret that manual training, correlation, and nature study have probably not accomplished all that their enthusiastic advocates promised ten to twenty years ago.

The feeling of disappointment, we might say even of discontent, among the more thoughtful and progressive teachers, is what might have been anticipated. In the first place, public education has become a much more difficult thing than it was half a century ago. It has become more difficult for two reasons:

1. Because of the constantly increasing migration of population from the country to the cities. Children removed from rustic to urban life lose that most valuable education which comes from the work and the association of the farmyard and the fields.

2. Because of the enormous increase in immigration from abroad, and particularly because the character of the immigration has changed. Up to the middle of the last century the majority of our immigrants were of kindred blood with the American people, and a large proportion spoke our language. Gradually, however, the tide of immigration, while swelling until it has now reached the enormous total of one million a year, has shifted its chief sources from the shores of the North and Baltic Seas to the shores of the Mediterranean. The people of Southern Europe, illiterate, accustomed to tyranny, without individual initiative, and habituated to a low standard of living, huddle themselves together in our large cities and factory towns under conditions inimical alike to morals, to physical well-being, and to intellectual advancement. Teachers have a good right to complain that municipal authorities, in permitting the overcrowding of immigrants in unsanitary quarters, have aided the establishment of the most serious obstacle yet discovered to the upward progress of public education.

In the second place, the feeling of disappointment with the results of the newer studies arises from the fact that these studies were introduced before the teachers were prepared to teach them; that for too long they were concerned chiefly with uninteresting formal processes rather than with interesting results; that they were not related to real needs of

school and home, and were not properly co-ordinated with other phases of the curriculum. Much yet remains to be done to assimilate the environment of the school to the environment of the world.

And yet, while we may feel discontented with the situation, and regret the increased difficulties of our work, there is no reason for discouragement. I have no hestitation in saying that in general intelligence, in all-round efficiency, in power of initiative, the pupils whom I now see are superior to those of a quarter of a century ago. If the obstacles before us are more formidable, if the problems are more complicated than those presented to our predecessors, the teachers of America are better organized and better equipped to overcome the obstacles and to solve the problems. He who has sailed in a modern steamship through an ocean storm has seen the mighty vessel cleave the billows and scarcely slacken her speed in the teeth of the hurricane. Down in the depths of the ship men are piling coal on the furnaces and releasing a force—the imprisoned sun-power of uncounted ages—that baffles the waves and defies the whirlwind. And so it is with our ship of state. Come what storms of ignorance or wickedness there may, teachers are supplying the fuel of knowledge and releasing the force of intelligence that will hold our nation in the straight course of progress.

And yet, the teachers of America are still far from satisfied with their achievements. They are dissatisfied with the elementary curriculum because it seems crowded with the new studies that have been added without diminishing the number of the old. They are dissatisfied with the high school curriculum, because the old-style language, mathematics, and science course, however situable it may be for admission to colleges, does not precisely meet the needs of the boys and girls who are going directly into life. They are dissatisfied with the specialized high school, because it seems lacking in some of those attributes of culture in which the old-time school was strong. And they are dissatisfied with the college course because the elective system, which has taken the place of the old prescribed course, does not seem to give a strong, intellectual fiber to the weaker students who too often follow the path of least resistance. And they are dissatisfied because there is less intelligence, less efficiency, less helpfulness in the world than the world needs. So far from feeling concerned at this widespread discontent, we should rejoice that it exists. There is nothing so blighting to educational enthusiasm as smug satisfaction with what is or what has been; there is nothing so stimulating to educational effort as a realizing sense of present imperfections and of higher possibilities.

As to the curriculum of the higher schools and colleges, the problem is really not what studies shall be inserted and what omitted, but how shall we make it possible for the student to get that culture, efficiency, and power out of his studies which his development requires. This is really a question for psychology to answer. Well may we ask of our universities with their psychological laboratories and their sensitive apparatus for measuring mental reactions: Will psychology ever accomplish what phrenology once promised, but has never performed—the determination of a young student's capabilities and of the line of work he ought to pursue?

As to the elementary curriculum, surely we shall not go far wrong if

we apply to each study, and even to each detail of each study, these four questions:

1. Is this study or this exercise well within the comprehension of the child?

2. Does it help to adjust him to the material and the spiritual environment of the age and of the community in which he lives?

3. Does it combine with the other studies of the curriculum to render him more efficient in conquering nature and in getting along with his fellows, and thus to realize ideals that transcend environment?

4. Does it accomplish these objects better than any other study that might be selected for these purposes?

If these questions are answered in the affirmative, we may reasonably conclude that the study or the exercise in question is an important element in education for efficiency. Examined from the view-point established by these questions, every study will assume an aspect very different from that which it bears when taught without a well-defined object. Take drawing for example. Drawing may be so taught as not only to lay bare to seeing eyes new worlds of beauty, but to lead to that reverent appreciation of nature, and the reapplication of her lessons to daily industrial art, which is the way, as Ruskin has said, in which the soul can most truly and wholesomely develop essential religion.

Again, take the teaching of agriculture. While our soil seemed inexhaustible in fertility as in extent, the need of such teaching was not felt. Now, however, we are obliged to have recourse to lands that produce only under irrigation. The rural schools have added to our difficulties by teaching their pupils only what seemed most necessary for success when they should move to the city. The farms of New England are, in large measure, deserted or are passing into alien hands. To retain the country boy on the land, and to keep our soil from exhaustion, it is high time that all our rural schools turned their attention, as some of them have done, to scientific agriculture. There is no study of greater importance; there is none more entertaining. If every country boy could become, according to his ability, a Burbank, increasing the yield of the fruit tree, the grain field, and the cotton plantation, producing food and clothing where before there was only waste, what riches would be added to our country, what happiness would be infused into life! To obtain one plant that will metamorphose the field or the garden, ten thousand plants must be grown and destroyed. To find one Burbank, ten thousand boys must be trained; but, unlike the plants, all the boys will have been benefited. The gain to the nation would be incalculable. Scientific agriculture, practically taught, is as necessary for the rural school as is manual training for the city school.

Nor are our people going to rest satisfied with mere manual training. The Mosely commissioners pointed out that the great defect in American education is the absence of trade schools. Trade schools will inevitably come. The sooner the better. They are demanded for individual and social efficiency.

It is not in secondary schools alone, however, that efficiency demands highly differentiated types of schools. It is absurd to place the boy or girl, ten or twelve years of age, just landed from Italy, who can not read a word in his own language or speak a word of English, in the same

class with American boys and girls five or six years old. For a time at least, the foreigners require to be segregated and to receive special treatment. Again, the studies that appeal to the normal boy only disgust the confirmed truant or the embryo criminal. Yet again, the mentally defective, the crippled, and the physically weak children require special treatment. Unless all indications fail, the demand for education for efficiency will lead in all our large cities to the organization of many widely differentiated types of elementary school.

The problem of the curriculum, important as it is, is less important than the problem of the teacher. The born teacher—that is, the man or the woman who has a genius for teaching—will teach well in spite of any curriculum, however bad. Unfortunately, genius is as rare in the profession of teaching as it is in law, or medicine, or any other profession. The great majority of us, as it needs must be, are very commonplace persons, who are seeking for light and doing the best we can. Hence, the supreme importance of training. And yet there is no part of our work to which so little thought and investigation have been given. Normal schools in this country are still very young—only a little over half a century old. The first normal schools were high schools with a little pedagogy thrown in. The majority of them remain the same to this day. There is a strong movement, however, toward purely professional schools to which no student who has not had a reasonably liberal education is admitted, and in which he shall devote his entire time to learning how to teach—how to observe, understand, and exercise children both mentally and physically. Welcome and necessary as this movement is, if all teachers are to train for efficiency, we are still far from precise scientific notions as to the best methods of training teachers. I commend this subject to the National Council as one of the next investigations it should undertake.

To secure training for efficiency, the conditions of teaching must be such that each teacher shall be able to do his best work. By common consent, one of these conditions is that teachers shall not be subjected to the ignominy of seeking political or other influence, or cringing for the favor of any man, in order to secure appointment or promotion. During the past year two events have occurred which seem to be full of promise for the establishment of this condition. The public-school teachers of Philadelphia have been freed from the bondage toward politicians in which they were held for well nigh a century; and the one-man power, beneficent as such a system proved under a Draper and a Jones in Cleveland, has been supplanted by an apparently more rational system. Independence of thought and freedom of initiative are necessary to the teachers of a nation whose stability and welfare as a republic depend upon the independence, the intelligence, and the free initiative of its citizens. Independence of thought and freedom of initiative may be throttled by bad laws, but under the best laws they will be maintained only by the teachers themselves. By making it unprofessional to seek appointment or promotion through social, religious, or political influence, the teachers of this country have it in their power to establish one of the most essential conditions of education for efficiency.

Under the conditions that confront us, particularly in the large cities, with the rapid increase and constant migration of our home population, with the influx of vast hordes of people from abroad, alien in language,

alien in modes of thought, and alien in tradition, the character of our elementary work is undergoing a profound transformation. We are beginning to see that every school should be a model of good housekeeping and a model of good government through co-operative management. What more may the schools do? They can provide knowledge and intellectual entertainment for adults, as well as for children. They can keep their doors open summer as well as winter, evening as well as morning. They can make all welcome for reading, for instruction, for social intercourse, and for recreation. But I for one believe that they may do still more. When I look upon the anaemic faces and undeveloped bodies that mark so many of the children of the tenements; when I read of the terrible ravages of tuberculosis in the same quarters; I can not but think that the city should provide wholesome food for children at the lowest possible cost in public-school kitchens. To lay the legal burden of learning upon children whose blood is impoverished and whose digestion is impaired by insufficient or unwholesome feeding is not in accord with the boasted altruism of an advanced civilization or with the divine command: "Feed the hungry." Is this not also a subject for investigation by our National Council?

And should it some day come to pass that men will look upon corruption in public and corporate life, such as of late we have seen exposed in New York, Philadelphia, and St. Louis, with the same loathing with which they regard crime in private life, it will be when the schools are in earnest about teaching our young people the fundamental laws of ethics, that

> The Ten Commandments will not budge,
> And stealing still continues stealing.

But economic perils and racial differences are the teacher's opportunity. Here in this country are gathered the sons and daughters of all nations. Ours is the task, not merely of teaching them our language and respect for our laws, but of imbuing them with the spirit of self-direction, our precious inheritance from the Puritans; the spirit of initiative which comes to us from the pioneers who subdued a continent to the uses of mankind; and the spirit of co-operation which is symbolized by, and embodied in, the everlasting union of sovereign states to promote the common weal. And as, in my own city, I see the eagerness of foreigners to learn, and the skill and devotion of our teachers, I cannot but think that we are overcoming our almost insurmountable difficulties.

There is, perhaps, no more striking moment in all history than that at which the apostle Paul, standing on Mars Hill and pointing to the blue Aegean, the center of the then known world, proclaimed the new but eternal doctrine: "God hath made of *one* every nation of men for to dwell on all the face of the earth." Standing here, as we do, on the border of the Atlantic Ocean, and beholding, on the one side, the dove of peace alighting from the hand of our President on the fields of carnage in the Far East, and, on the other side, the homes of peoples of all nationalities stretching from the Atlantic to the isles of the Pacific, under the protection of the American flag, may we not realize that we, as teachers, have a great part to perform in bringing a vast company to

an understanding of the sublime truth that God has made all men *one* to dwell on the face of the earth; that their mission is not to defraud and to slay, but each to do his best for himself and to help his fellows?

INDUSTRIAL EDUCATION—SCHOOL LECTURES ON AGRICULTURE AND KINDRED SUBJECTS.

V. W. GRUBBS.

The idea of industrial training is not a new one. It antedates modern civilization. Without its potent influence there could be no industrial and material progress, and without such progress there could be no social development.

The scope of this article would not permit of an extensive review of the methods which have prevailed in the world's history for the development of superior skill and ingenuity on the part of the young whose lives have been devoted to industrial pursuits. One of these methods with which many of the readers of this article were familiar in the past was the system of apprenticeships, which for a long time prevailed among the industrial classes. Under that system a boy, often without regard to special aptitudes, but because of supposed unfitness for a learned profession, coupled with an incorrigible disposition, was bound to a tradesman for a number of years' hard service in consideration of his victuals and clothes and experimental tuition in the trade or calling of his master. In some countries legalizing and maintaining the system, one was not competent or permitted to contract for mechanical work until after the termination of his service as an apprentice. That system, as applied to our section, has become practically obsolete, though not supplanted by a better one as is usually the case.

In the meantime those who have contented themselves with industrial activity have ordinarily been forced to rely upon natural ingenuity, coupled with such training as they received through casual association with men of greater skill and more extensive experience in their callings. In view of the fact that no sufficient opportunities nor facilities were afforded for the education of the young along industrial lines, while colleges, universities and other institutions of learning were provided for the preparation of the youth of the country for professional, commercial and literary pursuits, Senator Morrill conceived the idea of an agricultural and mechanical college for each State in the Union, to be partially supported by the Federal government, and secured the passage of a bill to that effect. The scope and practical work of those institutions is being forcibly exemplified by our college at Bryan, where facilities are now afforded for the attainment of a high degree of skill in many lines of industrial effort. It has been badly handicapped by a popular prejudice throughout all classes of our people, who have never duly appreciated the necessity for educating a boy whose life is to be devoted to the lowly(?) calling of a farmer or mechanic. Our public free school system fails to connect with it but leads the youth toward the over-crowded professions and other callings esteemed more respectable

than the farm and the workshop. And for that reason the Agricultural and Mechanical College of Texas has had a hard time in its effort to accomplish the purposes for which it was designed. In the first years of its existence it made very slow progress in the development of industrial skill, as there was no demand among the people of Texas for that kind of education, and it was looked upon by many as a stupendous failure. If the faculty of that institution failed to teach the science of farming and of mechanical appliances and to turn out successful farmers and mechanics it was because they had no material to operate on.

Occasionally a prominent educator would publish an essay in the school journals calling attention to the need of a reform in our educational system and suggesting the idea of elementary training in the subordinate schools, but they were not generally read and contributed very little, if anything, to the development of public sentiment favorable to that character of training.

On the 25th day of January, 1899, there was introduced into the lower house of the Texas Legislature a series of resolutions favoring an immediate reform in our public free school curriculum to the end that our young people of both sexes should receive such training therein as would in some degree fit them for the practical duties of life. One of these resolutions foreshadowed the establishment of the "Girls' Industrial College," which, I think, has been wisely re-christened the "College of Industrial Arts." The purport of those resolutions was published and favorably commented upon by the press of Texas, and the author received many letters from leading educators of the State encouraging him to press forward in the well-begun work. A meeting of representative teachers and others deeply interested in the promotion of the cause of industrial education was held in the hall of the house of representatives on the 6th day of April following, and an organization perfected to further the movement. That meeting was presided over by the Hon. J. S. Kendall, then State Superintendent of Public Instruction, and during his incumbency in office, and ever since, he has given his hearty endorsement and co-operation to the work of the committee which he helped to create. His worthy successors, the Hon. A. Lefevre and the Hon. R. B. Cousins, have been quite active in giving aid and encouragement to the committee. I am pleased to state also that the organized womanhood of Texas have done much toward the awakening of a general interest in the subject among the people and the accomplishment of the objects in view.

I think I may now say that the sentiment favorable to the introduction of industrial features into our common schools very generally prevails among the intelligent classes of our people, but the stumbling block has been how can it be done in view of the magnitude of the undertaking, the fact that a very small percentage of the teachers are prepared to teach the branches it comprises, and the want of the necessary funds to put the system into practical and successful operation? The plan suggested and which is strongly endorsed by all of the leading educators who have given an opinion, is the institution of school lecture courses to be given by persons in each district and community who have succeeded through superior intelligence in special lines of practical industry, and whose modesty is not so great as to prevent them from giving the schools

the benefit of their knowledge and experience. The subjects to be discussed will be altogether dependent upon local conditions and the special interests to be promoted or subserved. There will be no discrimination against the girls of our State, as subjects relating to their industrial and social development will be included in the course, to be, generally, discussed by the intelligent women of the district and community. At the suggestion of Mrs. Cone Johnson, President of the State Federation of Women's Clubs, and a member of the Board of Regents of the College of Industrial Arts, a kindergarten department will be included, when practicable; and to her and her associates will be left the details entering into that part of the proposed movement. The work has just been inaugurated, but so far as tested it works well and the prospect of its general adoption is quite flattering.

Greenville, Texas, February 16, 1906.

PROGRESS OF MANUAL TRAINING IN TEXAS.

That the manual and industrial education movement is making rapid progress throughout the State is evident from the following brief reports, taken in connection with the fact that two and one-half years ago Austin and Devine were the only cities in Texas that had introduced formal manual training work. Great impetus was given to the movement by the passage of a bill by the Twenty-eighth Legislature, March, 1903, apropriating $10,000 to be used by the State Board of Education in assisting school districts desiring to introduce manual training work. Most of the places named below have availed themselves of the State aid in purchasing their equipment.

AUSTIN.

N. S. HUNSDON, DIRECTOR MANUAL TRAINING.

The people of Austin are proud of the fact that the public schools of this city were the first in Texas to introduce manual training. The work here has paved the way for other cities and encouraged them to do likewise and get the benefits of the work. This work has been the means of keeping boys in the school, and this is shown by the number of boys in the high school today as compared with the number ten years ago. More than sixty per cent of the boys and girls enrolled in the high school are in the manual training courses. The graduates from this department have either taken courses in the University or have accepted positions that pay good salaries. In the brief outline that follows it is impossible to give a detailed account of the work we are doing.

MANUAL TRAINING.

Seventh Grade—High Division.—Wood-working.—Two eighty-four minute periods per week throughout the term—18 weeks. Pupils are

taught the use and care of all the wood-working tools, such as chisels, saws, planes, gouges, gauges, squares, spoke-shaves, etc., and the use of carving tools in line grooving and chip grinding. Grinding and sharpening chisels, planes, gouges; filing and setting saws, etc. At the end of the term some class project, such as a book case, table, etc., is made by the class and kept for use in the school.

Eighth Grade—Low Division.—Wood-working. — Two eighty-four minute periods per week throughout the term. Equipment same as used by the Seventh Grade. The work attempted in this year is larger and more complicated. The individual is permitted to use his own ideas more freely. Such articles as the foot-stools, letter-paper stand, crumb tray, tabouret, shoe box, etc., are made in this grade. Stains, varnishes, paints, etc., are used for decoration when suited to the object made. Co-operative work on a larger scale in Grade VII is also undertaken.

Eighth Grade—High Division.—During this term the pupil spends three eighty-four minute periods per week in the shop and is taught how to make and decorate simple furniture. All kinds of finishes are used in their proper place. Upholstering is also taught. It is astonishing what excellent result some boys get along these lines. Class-room talks, illustrated by maps, etc., are given during the term.

Ninth Grade—Low Division.—Turning in Wood.—Three eighty-four minute periods per week. The student has a full set of turner's tools and is taught the use of them in turning work held between centers, and in making all kinds of face-plate and chuck work. The lathe is fully explained; belts are laced by the pupil. The pupil has the responsibility of keeping the entire machine in order.

Ninth Grade—High Division.—Pattern-making and moulding is given in this grade and the time allotted to the work is three eighty-four minute periods per week. The equipment consists of a complete set of individual moulding benches, each supplied with a full set of moulding tools. The wood-working equipment is used by the pattern-making class. The pupil is taught the meaning of the terms used in pattern work and moulding and their significance, and what is the best practice in making good patterns.

Tenth Grade.—Three eighty-four minute periods per week are spent during the entire year in the forge shop. The pupil gets all the instruction necessary to master the fundamental principles of forging iron and steel. The exercises are so selected as to bring out the processes of drawing, upsetting, shaping, punching, welding and tempering of steel. Talks are given by the teacher on the important iron and steel processes as follows: The nature of the common iron ores. The distribution of coal and iron ores in the United States and their relation to industrial development. The fundamental factors involved in the blast furnace, puddling, Bessemer, open hearth, and crucible steel processes. The characteristics and important uses of the products of these processes.

Eleventh Grade.—Machine Shop.—Three eighty-four minute periods per week are devoted to this work during the entire year. A very carefully graded series of exercises involving the use of the lathe, planer, drill, milling machine, universal grinder, speed lathe, gas

forge, and polishing machine, is worked out by the student. The student learns the use of the common machine tools and the elementary principles of machine design. Cast iron, wrought iron, steel, and brass are the materials used. Metal spinning has been introduced this year. The students are building an engine lathe each year which will be added to our equipment. Steam engines, dynamos, motors, etc., are constructed for individual use. As far as time permits, the student makes a study of the following: Development of the steam engine in the nineteenth century. Importance in production and transportation. The part played by machinery in modern civilization. The tendency of improvements in machinery to replace manual labor by automatic devices and its significance.

DOMESTIC SCIENCE AND DOMESTIC ART.

The purpose of the following courses is to afford training in the special subjects which must be considered in the daily administration of every home. The aim is to present such fundamental principles and their application in systematic exercises and operations as shall give to the pupil habits of attention and exactness, the power of logical thought, a high ideal of the dignity of labor, and the ability to use her powers definitely and intelligently in the production of her ideal of perfection. At the same time there shall come to her knowledge and experience that will be of direct use and effectiveness in her life and in her home.

Cookery.—This work is given in three courses, beginning in the low eighth grade, and at present continues through the eleventh grade. The first course extends over a period of two years, and is intended to form the basis of the second and third courses. In each course instruction in dining room service is given.

First course.—Begins in low eighth grade and extends through the high ninth grade. Two eighty-four minute periods per week. Introductory talk on food and its uses, composition of the human body, combustion, fuels, construction of coal and gas ranges, care of kitchen, classification of food principles, water, mineral matter, carbohydrates, fats, proteids, and food adjuncts; methods of cooking, boiling, baking, etc.; the preparation and cooking of staple foods in their simplest and most easily digested forms.

Second course.—Tenth Grade. Two eighty-four minute periods per week. Richer preparations of staple foods; making of salads, fancy breads, cake, pastry, sauces for meats and puddings.

Third course.—Eleventh Grade. Two eighty-four minute periods per week. Practical lessons in canning and preserving. Jelly making, frozen dishes, entries, fancy cakes, preparation of game and shell fish; arranging, cooking and serving a simple meal.

Sewing.—This work as now given begins with the low eighth grade and continues through the eleventh. It is hoped that in the near future the work may begin in the lower grades, thereby reaching more of the children. When this has been accomplished a course in millinery will be added to the work in the advanced grades.

First year.—Eighth Grade. Two eighty-four minute periods per week. Talks on materials and implements used, various stitches used in hand sewing, patching, darning, mending.

Second year.—Ninth Grade. Two eighty-four minute periods per week. Advanced hand work; learning how to thread, run and take care of sewing machines; plain machine work, and the making of simple garments.

Third year.—Tenth Grade. Two eighty-four minute periods per week. Advanced hand and machine work; use of machine attachments; fitting and making garments.

Fourth year.—Eleventh Grade. Two eighty-four minute periods per week. Draughting patterns, fitting, making of dress trimmings, and finishing of skirts and waists. During the last year the director of manual training will give a course in house planning, sanitation, heating and lighting, selection of site, cost of building, etc. The planning and equipping of home and school kitchens, etc., with estimates of cost.

DRAWING.

The course in drawing is principally mechanical, although a certain amount of free-hand work is given. Enough free-hand work is given to enable the pupil to appreciate the value of free-hand drawing and to help him in making sketches of simple machines. The aim of the course is to prepare our graduates for the courses in engineering and architecture as given in the best schools of technology, and those graduates who do not enter the University are prepared to accept positions in architect's office, engineering department of railroads, etc. Each graduate is well grounded in the elementary principles of engineering, architecture and machine design.

Eighth Grade—Low Division.—Two eighty-four minute periods per week throughout the term. The drawing in this class consists of elementary principles of lettering, simple projections and working drawings for use in making designs for models in wood work.

Eighth Grade—High Division.—Two eighty-four minute periods per week throughout the term. Lettering. Use and care of instruments. Working drawings of common objects, in part related to work in the shops.

Ninth Grade—Low Division.—Two eighty-four minute periods per week throughout the term. One sheet of simple geometric problems with lettering. One sheet of orthographic projections (in pencil). One sheet of plan of simple one or two-story building for stable, wood shed or summer camp. One sheet of elevations.

Ninth Grade—High Division.—Two eighty-four minute periods per week throughout the term. One sheet of free-hand projections and cross-sections of machine. One sheet of working drawings of machine parts. One sheet of projections (in pencil). One sheet of projections (in ink, shaded). One sheet of geometric problems.

Tenth Grade—Low Division.—Two eighty-four minute periods per week throughout the term. One sheet of isometric drawings (tinted). One sheet of intersections of solids. Two sheets of development of surface (tinted).

Tenth Grade—High Division.—Two eighty-four minute periods per week throughout the term. One sheet of geometrical problems—ellipses, cycloids, involutes, helix, etc. One sheet of studies of bolts, nuts and screws. One sheet of free-hand perspective (in pencil). One sheet of lettering in general use by engineers, mechanical draughtsmen, etc.

Eleventh Grade—Low and High Divisions.—Two eighty-four minute periods per week throughout the entire year. Two sheets of shades and shadows. One sheet of methods used in representing surfaces (pen and ink and brush). One sheet of problems in gearing. Four sheets of house plans, elevations, and details (specifications to be written for same). One sheet of simple linear perspective. During this eleventh year, the class will spend forty-five minutes per week with the director of manual training in the study of the history of art and architecture, and problems that relate to the development of manual training and industrial progress.

Following are the teachers of the above work:

N. S. Hunsdon, Director.—Joinery and turning in wood, sanitation, heating, lighting, ventilation, equipments, etc. History of art and architecture. Edward S. Blackburn.—Pattern making, moulding, forging, machine shop practice. Eleanor H. Nesbitt.—Domestic science and Domestic art. Fred Hofstetter.—Mechanical and free-hand drawing.

BEAUMONT.

H. F. TRIPLETT, CITY SUPERINTENDENT.

The manual training course in the Beaumont schools is four years in length, including work for the high grammar, and high school pupils. There are now first and second year classes. The latter class is completing a course in lathe work. In the third year we shall introduce forging and modeling, and in the fourth year continue this with lathe work and cabinet work. Mechanical drawing is given throughout the course.

A class of girls is taking first and second years' work in Venetian iron and drawing. We contemplate introducing domestic science for girls next year.

Our plant, when forging is installed, will have cost about $2500. Mr. W. R. Hull, a graduate of the Manual Training Department of Washington University, is in charge of the manual training work.

BELTON.

J. B. HUBBARD, SUPERINTENDENT CITY SCHOOLS.

The pupils in our schools are first introduced to manual training on a small scale in the primary department, where they do cardboard work, simple basket work, etc. Then, after leaving the third grade, they have nothing more in this line, except drawing, until they reach the sixth grade, where they are allowed to take shop work along with

the first year high school pupils. This course embraces Venetian iron work, drawing, and bench work in wood. The next year's work embraces drawing, bench work, turning, pattern-making, pyrography, etc. The third and fourth years of the high school course will consist of advanced work in the subjects already mentioned, the department of manual training having been in our high school for only two years.

The course is optional and is open to both boys and girls. The girls take the same work as the boys, but it is our desire to establish in the near future a department of domestic science, wherein the girls may be taught cooking and sewing. About one-fourth of the pupils in our high school take manual training, and about one-half of these are girls. Our manual training building is perhaps the best in the State. It is a three-story stone building 80x50 feet, giving us abundant space at a distance from the rest of the school where the noise does not disturb anyone. Mr. R. R. McAnelly is our very efficient teacher in this department.

DALLAS.

O. A. HANSZEN, DIRECTOR OF MANUAL TRAINING.

Manual training work was introduced in the Dallas High School in November, 1903. It is carried on in a two-story brick building in which rooms were equipped for mechanical drawing, bench work in wood and wood turning. Since the introduction of these lines of work an annex has been added and sewing, basketry and cooking for the girls, with the addition of pattern-making and molding for the boys, have been introduced.

The molding department, which was added this year, is on the first floor of the brick building and is equipped with ten molding benches, built by pupils, a brass furnace, a core oven, a China kiln and flasks, riddles and other molding tools. The class in pattern-making and molding have some fine patterns and castings to show. Patterns and plaster and metal castings of anvils, vises, bells, ringstands, etc., have been made. The work in cooking and sewing under the direction of Miss Durant has been very successful.

The following outline shows the manual training course as planned for the four years of the high school. It will be seen that the work of the first year is taken by both boys and girls, while the two sexes take only a small part of the work of the tenth, eleventh and twelfth grades in common:

Ninth Grade.—Mechanical drawing, sketching, designing, bent iron work, bench work, elementary wood turning.

Tenth Grade.—For Boys: Mechanical drawing and designing, advanced bench work and turning, pattern-making and moulding, sheet metal work. For girls: Mechanical and free-hand drawing, domestic science, domestic art, clay work.

Eleventh Grade.—For boys: Mechanical drawing, pattern-making, sheet metal work, forging, clay work. For girls: Free-hand drawing, painting, clay work, domestic science, domestic art.

Twelfth Grade.—For boys: Mechanical drawing, machine shop work. For girls: Domestic economy, dressmaking, art work including painting and designing.

The time devoted to manual training is three periods, of ninety minutes each, a week. The course is elective.

While this has not all been carried out this year it is the purpose to do so next fall when the completion of the high school building will afford the room necessary for this purpose. About 170 pupils in the high school department are thoroughly interested, are working hard, and are realizing some excellent results in spite of the fact that the classes are crowded for room.

Dallas is soon to erect a new high school building in which provision will be made for a fine manual and industrial department. Twelve or more rooms in this building will be utilized for manual training, domestic science, domestic art, machine work, etc.

The work in the Stephen F. Austin school, a ward school in which the manual training was introduced in February, 1904, is now showing good results. The boys and girls in all of the lower grades do their manual training work in the class room. The girls above the sixth grade work in the class room, but the boys come once a week to the high school. The work in the Stephen F. Austin school includes the following:

First Grade.—Paper tearing, clay modeling, picture stories in paper.

Second Grade.—Clay modeling, paper cutting and construction.

Third Grade.—Card board construction, card weaving.

Fourth Grade.—Basketry.

Fifth, sixth, seventh and eighth grades.—Sewing for the girls. Boys go to the high school for work.

In the first and second grades one hour per week is given to manual training; in the other grades about ninety minutes per week. Practical application of the work, at home, is encouraged.

The work in manual training at the negro high school is progressing as well as can be expected under the present circumstances. At this school the boys and girls are required to take the same work during the two years, but we hope to be able to offer the negro girls a course in cooking, serving, laundry work, etc., soon.

FORT WORTH.

COOKING.—MISS LAURA NEALE, TEACHER.

There are at present two courses of study in the high school—a Latin course and an industrial course. In the industrial course cooking or sewing is compulsory for the girls in the eighth and ninth grades. The work, however, is not confined exclusively to these two grades, girls in the tenth and eleventh grades being allowed the privilege of taking it; and it is very gratifying to note that some eighteen or twenty from these grades are taking advantage of their opportunity.

There are at present about fifty girls taking cooking. The work for the present term includes a study of the different cuts, the food value and the cooking of meats, soup-making and salads.

A small fee of fifty cents per term is charged each pupil. This sum helps to cover the cost of materials.

DOMESTIC ART.—MRS. M. P. FERGUSON, TEACHER.

This is the second year that this branch of work has been taught in the public schools here. It has proven very popular. There are now sixty girls taking it, and they are progressing nicely.

In the first year's work they learn the different stitches by making small models; also patching and darning in the various ways.

The girls of last year will soon be ready to take up the drafting and cutting.

We have the same course here that they use in New York City public schools.

MANUAL TRAINING.—JOS. E. GUISINGER, SUPERVISOR OF MANUAL TRAINING.

The Fort Worth High School has a well equipped manual training department and a special instructor for this line of work. The equipment consists of eighteen workbenches of improved pattern, each with outfit of wood-working tools; and tools for Venetian iron work, four turning lathes, and a three-horse power electric motor.

Two years are required for completing the work in manual training, and the work includes mechanical drawing, bench work in wood, wood turning, and Venetian iron work.

This department is open to boys only, and fifty are now enrolled in the classes.

Courses in hand-work in the Fort Worth High School are supplemented by practical work in printing, which is carried on by the boys under the supervision of teachers. They print their monthly school paper, the pupils doing all of the typesetting, press work and binding and a good portion of the illustrating.

HOUSTON.

P. W. HORN, SUPERINTENDENT CITY SCHOOLS.

The Alumni Association of the Houston High School has undertaken the work of raising $5000, by individual subscription, with which to install a manual training equipment in the Houston High School. Over half of this has already been subscribed, and the remainder is in sight. The mayor of the city, Hon. H. B. Rice, has agreed that if this is done he will recommend that a special appropriation of $2500 a year be granted to the city schools for the purpose of maintaining the manual training work.

The only work that has been done thus far, aside from this, is that the school board has allowed an appropriation of $5 to each teacher in the schools who will expend this amount for material to be used in manual training work. This amount has been expended by various teachers in various different ways. In some instances it has been used

to purchase raffia. In other instances, it has been used to purchase tools for the establishment of a school garden. The chief benefit of this work has been along the line of developing manual training sentiment.

The city of Houston feels that the present is a particularly opportune time for doing manual training work, in view of the fact that the Rice Institute will soon be in operation within its borders. With the $8,000,000 back of this institution there is every probability that it will be the richest and greatest high grade technological institution of the South. It should rank with Armour Institute or the Massachusetts Institute of Technology. In order that it should reach the greatest number of Houston pupils, the public high school must be so equipped along manual training lines that its graduates will be able to enter Rice Institute. The present move is largely in this direction. Plans are being made to begin the woodwork for boys and the domestic science for girls in September of the present year.

KAUFMAN.

MISS ALACE A. STEGER, DIRECTOR MANUAL TRAINING.

By the kind and earnest work of the ladies of the Clover Club, manual training was introduced in the public schools of Kaufman in 1904 with a class numbering about eighty-five. It was at first taught in the seventh, eighth. ninth and tenth grades, but the second year it was decided to omit the seventh grade.

Our work includes the wood work, Venetian iron, brass work, and basketry. Mechanical drawing is taught in the ninth grade.

In the lower grades, we have free-hand drawing, paper folding and cutting, weaving, clay modeling and color work.

The ladies of the Clover Club are in hopes of being able to have domestic science introduced in the schools in a year or so.

MARLIN.

A. B. MAYS, TEACHER OF MANUAL TRAINING.

The Main High School offers a four years' course in manual training. embracing courses in bench work, Venetian iron, turnery, and mechanical drawing. Forge work and domestic science will probably be added soon.

The courses are open to children over twelve years of age from the sixth grade up. The sixth grade begins in Venetian iron work, passing from that to sloyd in the seventh and eighth grades. Above the eighth grade turnery is taught.

The shop is equipped with eight double work benches, each provided with two complete sets of tools; besides, there is a complete outfit of general shop tools. There are six lathes, run by a motor. The drawing room is equipped with twelve drawing tables, each with a set of the necessary instruments, as T squares, triangles, scales, etc. The equipment is of the very best, and the interest in the work is great.

AGRICULTURE IN THE MINEOLA SCHOOL.

B. YOUNGBLOOD, PRINCIPAL HIGH SCHOOL.

The Mineola school lays claim to being the pioneer in Texas in the matter of practical agriculture and horticulture in the public school course. A beginning was made two years ago in the seventh grade by the use of "Beginners' Agriculture," by Stevens, Burkitt and Hill, tentative to ascertain the amount of interest that could be developed. The first year was devoted mainly to the germination of seeds, habits of plants, and elementary plant physiology in a laboratory with equipment composed of old bottles, lamp chimneys, and fragments of earthenware. The second year there was remarkable increase of interest. Plats of grounds were secured and experiments begun on a more extensive scale; structural botany and principles of budding, grafting, and pruning introduced; a demonstration of winter forage crops—eight varieties—made, calling attention to greater possibilities for diversified farming.

This year "Agriculture for Beginners" is begun in the seventh grade with two afternoons a week for practice in gardens. The work is continued more extensively in the eighth grade with the "Principles of Agriculture," by Goff and Mayne, and closing in the ninth with structural and systematic botany and principles of horticulture, as class work, supplemented by practice in the school gardens. Also supplementary to this work we have an agricultural library consisting of such agricultural journals as "Farm and Ranch," "Breeders' Gazette," all the government bulletins, year books, reports of the Bureau of Animal Industry, and "Our Dumb Animals." Everything available is laid under tribute,—valuable donations of all kinds of seeds, bulbs, shrubs and trees by the United States government, and various seedmen and nurserymen all over the South. This work reaches its culmination in the Industrial History course of the tenth and eleventh grades, covering the industrial development of the great nations, notably England and the United States. It intensifies and vivifies the course of all the other departments, and *no subject suffers* from time devoted to this work. In fact, it is of inestimable value to English, history and mathematics.

In conclusion, it may be added that striking results are already visible in the way of discipline, love of nature, and aesthetic tastes, especially pride in beautifying the homes, manifested by students taking this work.

INDUSTRIAL WORK IN THE SAN ANTONIO PUBLIC SCHOOLS.

L. E. WOLFE, CITY SUPERINTENDENT.

Sewing for girls in grades four to eight has been successfully taught in our white and colored schools by the regular teachers for about half a dozen years. With the beginning of September, garment making in grade eight of the white and colored schools was added. Mrs. Anna E. Hilton has efficiently supervised this work from its beginning.

The volunteer basket work for boys in the fourth and fifth grades and cane seating in the sixth and seventh grades was made general with the beginning of last September. Bench work for boys was put into the high school September, 1904, with W. L. Shumway as director. With the beginning of school last September bench work was put into the white and colored eighth grade, with Adolph Uhr in charge of the white pupils and O. B. Furye in charge of the colored; also, wood turning in the white high school, bench work in the colored high school, and cooking in the eighth grade, white pupils, and for the colored pupils in the fifth, sixth, seventh and eighth grades and the high school. Miss Emma E. Pirie of the College of Industrial Arts, Denton, is in charge of the cooking in the white schools, and Miss Mamie Holley, a graduate of Tuskegee Institute, is in charge of cooking in the colored schools.

Gardening was begun February, 1905, with the boys of grades four to eight, in both white and colored schools. Mr. S. A. Minear, a graduate of the A. & M. College, is in charge of our gardening. The gardens for last spring and last fall are quite satisfactory, and teachers and pupils are enthusiastic in the work. They are now self-supporting, with the exception of the salary for the teacher. We are just starting a flower culture movement for girls, with prizes.

SHERMAN.

W. H. CURTIS, DIRECTOR MANUAL TRAINING.

Courses have been established in all of the grades, but all work in the first four grades is taught by the regular teachers under the supervision of the director, while that from the fifth grade through the high school, inclusive, is taught personally by the director.

Most strikingly successful have been the results of a combined course in paper tearing and brush water color work in the first and second grades.

In the third and fourth grades, basket work, varying from the simplest reed to the most complicated Indian weaves in raffia is taught.

Whittling or knife sloyd is taught in the fifth and sixth grades with much success, while in the seventh year Venetian iron work with whittling in some combinations is given.

A thorough course in bench work covers the eighth and ninth years in the high school, and the manual training course here is made optional with Latin or science. In the tenth year the pupils take up wood turning, designing and wood carving. The wood carving is taught in all three years, as is also mechanical drawing.

A special course, consisting of light bench work with wood carving and decorating, designing, etc., is made up for the high school girls. This has been quite successful and will be continued until domestic science equipment can be installed.

The department's capacity is taxed to the limit, and the entire work has been a pronounced success.

TAYLOR.

W. M. WILLIAMS, SUPERINTENDENT.

Weaving.—The course covers the first three grades. The materials used are twine, raffia, yarn, paper strips, and reeds, and the articles made are such as book-marks, cornucopias, mats, hammocks, rugs, baskets, etc.

Manual training.—This is a three-year course including the eighth, ninth and tenth grades. The work being done in the eighth grade is as follows: Joinery, including only the simple exercises, according to the Roman method, and a course in geometric drawing. The ninth grade is doing carving and indrawing, having the projection and perspective work. The tenth grade is taking the wood-turning and elementary designing and mechanical drawing. However, the third year's work is to consist of forge work, and we expect to add the forges during the next vacation. Also the seventh grade boys are permitted to take the eighth grade work. In all other grades both sexes take the work, though it is optional.

WACO.

J. C. LATTIMORE, CITY SUPERINTENDENT.

Manual training for the first time was introduced into the Waco High School September 18, 1905. The one hundred boys and girls now enrolled are all very much interested in this new school course, and the exercises made by them bespeak its value as an educative school subject.

During the first year the students receive instruction in Venetian iron work, joinery, wood turning, free-hand and instrumental lettering, elementary mechanical drawing, tracing and blue printing.

It is the desire of the school board to extend this work into the grades below the high school, and install new equipment in the workshop as soon as conditions will justify it.

The advanced work corresponding to the four years high school manual training will be similar to that taught in any first-class manual training school.

OTHER CITIES.

Manual training has also been introduced in the schools of Devine and Itasca, but no reports are at hand. At the former place drawing, cardboard work, Venetian iron work, thin wood, pyrography, carving and turning have been introduced, and additional work is contemplated.

Sewing is being introduced in the Paris High School this spring, and good rooms are to be provided in the new high school building for the enlargement of this work and the introduction of domestic science and manual training. Miss Marie Paynor, a graduate of the College of Industrial Arts, has charge of the work.

In Greenville several of the teachers have introduced different forms of elementary manual training which can be carried on in an ordinary school room. It is believed that the more formal features of the work can be introduced at an early date.

COLLEGE OF INDUSTRIAL ARTS.

HISTORICAL SKETCH.

The first formal effort to establish an institution in Texas for the industrial training of girls was the introduction of a bill in the lower house of the Twenty-second Legislature, in 1891, by the Hon. A. J. Baker of San Angelo. The bill passed in the Senate, but failed in the House. In 1897 a similar bill was introduced by Senator William J. Bailey of Tarrant County. Again the bill pased the Senate but failed in the House. In the Twenty-sixth Legislature, in 1899, a bill providing for a girls' industrial institution was introduced by Judge V. W. Grubbs of Greenville. Although this bill failed in the Senate, the agitation in its favor terminated in a formal demand in the platform of the Democratic party in 1900, that an industrial institution for the training of girls be established. The bill which finally became a law, and which was substantially the same as that introduced by Judge Grubbs, was introduced in the Senate of the Twenty-seventh Legislature by Senator Harris, and in the House by Messrs. Mulkey and Pierson. It became a law April 6, 1901, thus creating the "Texas Industrial Institute and College for the Education of White Girls of the State of Texas in the Arts and Sciences." The law provided that the Governor appoint a locating commission to choose a site for the College, said commission to consist of one person from each Congressional district. One of the duties laid upon this commission was: "They shall also take into consideration the healthfulness, moral and social environments and influences, accessibility, and other facts and circumstances affecting the suitability of the site in question as a location for said industrial institute and college." This commission, consisting of thirteen persons, after making an extended tour of the State, on which they carefully inspected numerous available sites, finally, in February, 1902, located the College at Denton.

The law also directed "That the Board of Regents shall possess all the powers necessary to accomplish and carry out the provisions of this act, the establishment and maintenance of a first class industrial institute and college for the education of white girls in this State in the arts and sciences, at which such girls may acquire a literary education, together with a knowledge of kindergarten instruction, also a knowledge of telegraphy, stenography and photography; also a knowledge of drawing, painting, designing and engraving, in their industrial application; also a knowledge of general needle-work, including dressmaking; also a knowledge of bookkeeping; also a thorough knowledge of scientific and practical cooking, including a chemical study of food; also a knowledge of practical housekeeping; also a knowledge of trained nursing, caring for the sick; also a knowledge of the care and culture of children; with such other practical industries as from time to time may be suggested by experience, or tend to promote the general object

of said institute and college, to wit: fitting and preparing such girls for the practical industries of the age."

The Governor appointed as the first Board of Regents the Hon. A. P. Wooldridge, Austin; Miss M. Eleanor Brackenridge, San Antonio; Mrs. Helen M. Stoddard, Fort Worth; Hon. Clarence Ousley, Houston (now of Fort Worth); Mrs. Cone Johnson, Tyler; Hon. Rosser Thomas, Bonham; and Hon. Jno. A. Hann, Denton. This board went to work promptly, and on January 10, 1903, in the presence of five thousand people, the cornerstone of the College of Industrial Arts was laid. A President for the College was elected November 29, 1902, who entered upon his duties January 1, 1903. Several meetings of the Board were held and much time was employed during the spring and summer of 1903 in the selection of a Faculty. Meanwhile the building committee of the Board put forth its most strenuous efforts in purchasing and placing the college equipment for the accommodation of the students. With a Faculty of fourteen specialists, selected from South, East, North and West, and from nine different States, the College opened its doors September 23, 1903. At the close of the first year there had matriculated one hundred and eighty-six (186) students, representing eighty-eight (88) counties of Texas.

LOCATION.

The College of Industrial Arts is situated just in the outskirts of Denton, to the northeast, in a campus of seventy acres of rising ground overlooking the city and the surrounding country. About ten acres of this form a beautiful slope in front of the College building. This portion is well supplied with large shade trees and is covered with Bermuda grass, with artistic walks and drives leading to the College. In the rear of the College is a fine grove of oaks, in the midst of which it is hoped that, before long, a comfortable dormitory for the students may be erected. Lying still back of this, toward the north, are the orchard, berry and vegetable gardens and grain fields. The College plant is provided with a good sewerage system which carries the sewage to the farm, many rods away from the building.

Denton is located in a prosperous agricultural region. It has a population of about 6000, and is a city of good homes, intelligent people, and has an elevating moral and social atmosphere. The representative religious denominations have churches here. Denton is rapidly becoming an educational center; it has not only a good system of public schools, including a high school, but also the Southwestern Christian College, the North Texas State Normal, and the College of Industrial Arts. The city is in a healthful location, and is supplied with excellent water from artesian wells. It is within thirty-five miles of Fort Worth, about the same distance from Dallas, and is reached by the Missouri, Kansas & Texas and the Texas & Pacific railways.

EQUIPMENT.

The equipment of the College is the best that could be obtained, the policy of the board being that the best is none too good for Texas girls, and that it is poor economy to get second class equipment. The basement contains the creamery, equipped with churns, separator, cream ripener, butter worker, cream testers, wash sinks, bottling apparatus, scales, etc. In another well lighted apartment, with cement floor, is the laundry, with complete outfit for both hand and machine work, as tubs, washer, dry room, extractor, wringers, ironing boards, ironing machines, starcher, etc. Adjoining the creamery is a science lecture room for the theoretical work in laundering and dairying. In the basement is also located the manual training laboratory, equipped with benches and tools for light construction work, wood carving, Venetian iron work, modeling, cardboard work, etc. This laboratory also contains a lathe, a scroll saw, and other small machinery for skilled hand work suitable for women and for public school manual training work. The machinery in these departments is run by electric power. Across the corridor from these departments is the boiler room, containing the heating plant, air compressor for forcing water from the well, a gas machine, to provide gas for kitchen, laundry and other laboratories, etc. Adjoining the boiler room is an apartment fitted up as a lunch room and cloak room. On the first floor are the president's, secretary's and physician's offices; the art room, with individual drawing tables, lockers, model stands, etc.; the mathematics, languages and English rooms, seated with comfortable cane bottom chairs with tablet arm; and the library, which contains several hundred volumes, treating of all phases of the college work, and with twenty-five or thirty magazines and a good reading table. On the second floor is the commercial room, with typewriters, tables and desks; the history room; the rooms for biological science, consisting of a lecture room, seated with opera chairs with tablet arm, and a laboratory with table, compound microscopes and other apparatus; and the large physical laboratory, equipped with double experimental tables, lecture chairs, storage cases, hoods, basins, etc.; this room also contains a fine photographic equipment, china kiln, sunlight picture apparatus, an electric stereopticon, etc.; adjoining it are the instructor's private laboratory, an apparatus room containing an X-Ray equipment and much other apparatus for physics, a chemical store room, and a photographic dark room. On the third floor is a domestic science laboratory, domestic arts laboratory and the auditorium. The first consists of a lecture department, with lockers for aprons and caps; a large kitchen equipped with cooking tables, built in the form of a rectangle, fitted on top with twenty-two gas stoves, for each of which, beneath the table, are a bread board, drawer with cooking dishes, spoons, etc., and a roll-front cupboard for pots, pans, etc.; the kitchen is also supplied with a large gas range, a coal and wood range, a thirty-gallon hot water boiler, six porcelain-lined sinks, a cupboard for extra dishes and equipment, a supply table in which are kept various provisions and materials, a fuel chest, a storage closet, a refrigerator, and a dumb waiter for raising materials from the basement. The domestic arts laboratory has a locker room for students' unfinished work, a large sewing room with small and large tables, a dozen sewing machines, a

fitting and millinery room and storage closets. The auditorium has a raised floor and is equipped with good oak furniture—opera chairs, platform chairs, reading desk and piano, together with charts, blackboard, etc., for music classes. An electric program clock in the main office automatically calls off the time for change of classes by ringing small gongs in the corridors on all the floors. Only the central portion of the main building has as yet been erected. Additions are contemplated according to the growth of the school and the financial prosperity of the state.

Tennis and basket ball courts are located near the building. A large greenhouse has been built, in connection with which practical lessons in floriculture and horticulture are given; also a fine dairy barn, where a small herd of registered Jerseys is kept, and a poultry yard, which is supplied with incubators and brooders, and is stocked with a variety of blooded fowls. Artesian water is obtained from a deep well just in the rear of the building, from which it is pumped into a cement reservoir; from this, when the sediment has settled, the clear, pure water is pumped into a steel tank, standing on a tower, affording not only ample water supply for the College, but fire protection as well.

CONDITIONS FOR ENTRANCE.

Who may attend the College? All white girls of good moral character who have attained the age of sixteen years, who have a fair knowledge of the common school subjects, who wish to continue their education, including a thorough practical training for life, and who come to the College with the clear and earnest purpose of doing their best work and of complying with the regulations.

The examination for entrance to the First Preparatory and Irregular classes includes the subjects of Spelling, Reading, Elementary Geography, Arithmetic, United States History, and Elements of Grammar and Composition. In Arithmetic the applicant should be able to solve problems in Greatest Common Divisor, Least Common Multiple, and Percentage. She should have a knowledge of the leading facts in the History of the United States as given in such text-books as those adopted in the Texas public schools. In English Grammar the student should be able to analyze sentences, and parse words; in Composition, to form intelligent sentences, and to write them neatly and punctuate them correctly. The questions for the entrance examination, in any subject, are not taken from any certain text-book or books, but are such as are reasonable for students who have made a proper study of the subjects indicated. Students entering after the beginning of the school year are expected to pass an examination similar to the above, and to make up back work in the several subjects covered to date.

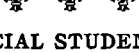
Applicants for advanced standing, not vouched for by the Classification Committee, are examined in all subjects in the preceding years of the course of study. Those holding Second Grade Certificates are admitted to the Second Preparatory class without examination. Graduates of approved high schools, and those holding First Grade Certificates are, at present, admitted to the Junior class without examination.

Advanced students who have had work in other schools of high standing, equivalent to that required in any of the subjects of the course in the College, are given due credit for the same. Graduates of good high schools should be able to complete the work, as at present arranged, in two years.

IRREGULAR STUDENTS.

Students who, for reasons satisfactory to the Classification Committee, are unable to carry a regular program of work, may be classified as Irregular students, taking such program of work as may be approved by said committee. All such students, however, must meet the entrance requirements for the First Preparatory year, either by passing the examination or by presenting satisfactory credentials as indicated on another page. This arrangement for irregular students is intended for adults whose time is limited and who are not prepared to carry the regular work. Young students who fear that they may not be able to remain long enough to complete the entire regular course should carry it as far as they can rather than plan to enter as irregular students. Effort is put forth to make all courses so practical and thorough at all points that the greatest good may be gained by taking the work in its regular order. The aim of the College is to encourage thorough, earnest work in all departments, and the purpose of students who attend it should be to take enough time to do the work in a manner creditable to themselves and the institution.

Teachers who desire to prepare for teaching manual training, including sewing and cooking, in the public schools, will be welcomed to the institution, and will be provided with courses in the theory and practice of work suitable for primary, grammar and high schools. Particularly would we encourage those in this work who are thoroughly interested in it and who have had successful teaching experience or a normal school course, or both.



SPECIAL STUDENTS.

Students who wish to pursue work beyond that prescribed in the curriculum may arrange for special work if they present satisfactory evidence of qualification to the Classification Committee. Special students may choose their course, subject to the approval of the respective teachers involved, and of the President. Certificates of proficiency in any branch will not be issued for less than one term's work in such branch. Post-Graduate work is provided under this head.

ACCREDITED SCHOOLS.

The faculty is preparing a list of approved schools, students from which may be admitted to the College of Industrial Arts without examination. The list will include other colleges, academies, private

schools, high schools, and grammar schools of high grade. The purpose of this list is to simplify the problem and labor of classifying students, and to relieve students from the formality of examination, if they present satisfactory credentials from other schools. Those who have attended other schools as indicated above and who contemplate attending the College of Industrial Arts are invited to correspond with the College with a view to arranging their classification before they come and so to secure exemption from the formal entrance examinations. Besides making a clear, concise statement of their work in school, they are asked to have their last teacher or principal to address a letter to the President of the College, stating the extent of the work accomplished and, if possible, to send a copy of the printed course of study of the school attended. Blanks for teachers to fill out, stating the work accomplished by those who desire to enter the College without examination, will be furnished on request of students or teachers.

All schools affiliated with the University of Texas are on the accredited list of the College of Industrial Arts. Other schools desiring to be placed on this list should fill out the blank application which will be sent out at an early date. Teachers, principals, and superintendents are invited to write and send in the blanks, properly filled out, if they wish their schools placed on the accredited list of the College of Industrial Arts. This should be attended to before the first of June, if possible. It is the aim of the College to give just and due recognition to the work of other schools, teachers, and students.

CURRICULUM.

The field to be covered by the work of the College of Industrial Arts is so large that it has been impossible at this time to inaugurate all of the courses contemplated in the Law. Therefore only the subjects for which there is the most urgent present demand, and which seem to be of the most vital importance in the practical education of our girls, are at present introduced. These are arranged under four courses, known as the "English-Science Course," "Domestic Arts Course," "Fine and Industrial Arts Course," and "Commercial Arts Course." As the College develops, additional courses will be organized and other subjects introduced.

English Science Course. This course is adapted to the needs of those who want to give their chief attention to scientific and literary subjects. It involves more collateral reading and a larger proportion of home study than other courses.

Domestic Arts Course. As the title indicates, this course places stress on training of a domestic nature. The literary and scientific features it includes contribute to make it a broad practical course. While girls may have no need or desire to do everything required in the course after they leave school, they will be largely benefited by the training involved in each subject.

Fine and Industrial Arts Course. This course includes numerous subjects of a practical nature, and is intended to prepare students for profitable remunerative occupations. Here again, the study of litera-

ture and science is deemed essential to the most successful work, both during and after the completion of the course. In this and other practical courses a large amount of laborarory study and practice is required.

Commercial Art Course. Here is offered a thorough course for those who wish to prepare for clerical work, reporting, etc. It is intended to meet the demand for more broadly intelligent and more accurate office workers in commercial lines. The work ranks with that of other courses in extent and grade.

The regular course in any department includes the completion of all work indicated in the tabulated outline. All who satisfy the requirements of any portion of a course, either by examination or certificate, will be given due credit therefor; provided, that at least one year's work in this institution will be required of all candidates for a diploma of graduation.

All students are required from time to time to attend lectures and demonstrations in Floriculture, Poultry Raising, Beekeeping and Dairying through one year. Sections are formed and report for this, as directed by the President.

It will be noticed that in all of the courses literary work has a prominent place. Industrial training is most valuable, but, taken by itself, it is not sufficient. Both for the purpose of training and that of giving information, literary work is indispensable in a thorough education. In the courses as arranged an effort has been made to furnish the two lines of work—industrial and literary—in proper proportions for the best, all-round, practical training for life's work. In the early part of the course the literary feature naturally receives emphasis, connecting with school work previously done by the students, and preparing them for the deeper appreciation of the scientific features of the industrial courses. During the Junior and Senior years emphasis is placed on the manual work, and special technique developed. Let no student come to the College with the idea that books are here laid aside. Books are among the tools of all of the departments of the College of Industrial Arts.

The course of study will be given in detail in College Bulletin No. 14, June, 1906.

SPECIAL ADVANTAGES.

Among the special advantages of the College of Industrial Arts mention should be made of the convenience of Denton to all portions of the state. The town is centrally located with respect to the densest population of Texas, and is easily reached by rail. It is situated just on the boundary between the prairie and the cross-timber country, has good drainage and is considered one of the most healthful locations in Texas. Denton is a clean town morally. There are no saloons here. It is a place of Christian homes, churches, fine social atmosphere, and is permeated with a progressive educational spirit.

The complete equipment of the College of Industrial Arts and the special qualifications of the members of the Faculty for the most thor-

ough work in their respective lines should commend the institution to those who are seeking superior opportunities. Parents will appreciate the supervision of their daughters by a Faculty selected with special care as to their fitness for properly overseeing and directing the lives of maturing young women. Outside of the school the students are always subject to the supervision of the teachers, each teacher having the oversight of a certain group of students. In the College chapel exercises are conducted each school day. The proper conduct and moral training of the girls are carefully looked after at all times. The churches of the different denominations in Denton welcome the students of the College of Industrial Arts to their services and their Sabbath schools. It is expected that all students will attend the church to which they belong or which their parents or guardians prefer them to attend. Proper student organizations within the College are encouraged, but no such organizations may be formed without the consent and approval of the President. All students are required to conform to such regulations as may be adopted from time to time.

FACULTY.

The instructors in the College of Industrial Arts are all specialists in their respective lines. They are persons of the most thorough training and of successful experience. In their selection the purpose and scope of the work of the institution has been carefully considered, as have also the many details of the proper instruction of the girls of Texas. Besides educational qualifications—which are indicated in connection with the names of the Faculty published on a preceding page—the matters of personal moral character, culture, tact, general disposition, habits, social qualities and special fitness for teaching young women, were fully considered. Parents may send their daughters to the College of Industrial Arts with the confidence that their welfare in every respect—morally, intellectually and physically—will receive most conscientious care. Members of the Faculty are glad at any time to answer inquiries of parents regarding their daughters. It is hoped that parents and all others interested will visit the institution whenever they can make it convenient to do so.

PHYSICIAN.

The primary object in having a College Physician is to prevent sickness and to look after the general health of the students. All students are expected to report to her their state of health as often as she deems it necessary. Should a student feel ill, she is expected to send, or to come in person, to the physician at once. The physician has daily office hours, at which time students may report, or consult her professionally. In case of serious illness the parents of the patient will be notified immediately. The physician's services are free to students, medicines only to be paid for—when prescriptions are filled at the drug stores. This applies to students only so long as they are in regular

standing in the institution. The College is in no sense a sanitarium for invalids or semi-invalids, or applicants who come to the College principally for medical treatment.

RECREATION AND HEALTH.

Besides the physical culture required in all courses of the College provision has been made for outside recreation, and students are encouraged to engage in out-door sports, such as tennis and basket ball. Grounds have been prepared for this purpose on the College campus. The College physician has the special oversight of the health of the students, both in their boarding places and in the school Besides the regular courses in Physiology and Hygiene, students receive special lectures on health, systematic exercise, sanitation, etc.

THE LIBRARY.

The library, consisting of about 500 volumes, is open to all students. The books have been most carefully selected by the different teachers, and each department is represented by some special works along its own line. This is but the nucleus of what is hoped for the library in the future, as it is the intention of the College to add to the number of books each year,—and in such proportion as the funds provided will permit. About thirty magazines and periodicals have also been subscribed for, and it has been most gratifying to observe the pleasure the students have derived from these each month.

UNIFORM DRESS.

A uniform dress for the students has been adopted. All students, except those who, for weighty reasons, may be excused, are required to wear the uniform. It is fully described in Bulletin No. 10, June, 1905.

TEXT-BOOKS.

Text-books, for use in the College, are furnished from the College book store on the following terms: All students, on taking out books, are required to deposit the full value of the same with the Secretary. If the books are returned in good order at or before the close of the term, four-fifths of the deposit is returned. In the case of appointive students the entire amount of the deposit is returned. Students who desire to keep the books as their own property are allowed to do so by paying the cost price for them. College note books, bookkeeping blanks, stationery, etc., are sold at cost for cash. Students are subject to fines for damage to rented books.

BOARDING.

Boarding may be obtained in private families or in boarding houses within walking distance of the College. Students who so desire may have boarding places selected for them in advance of their arrival, or, if they prefer to select them afterward, this privilege will be accorded them. Students are not allowed to board except at such homes or boarding houses as have the approval of the President of the College. Boarding houses are not approved that do not have proper equipment and care, good sanitary conditions and wholesome and safe surroundings. It is allowable for students to room at one place and take their meals at another; provided, that both places have been approved. Students must plan to pay room rent and boarding in advance.

A DORMITORY.

The most substantial indorsement the work of the College of Industrial Arts has yet received is that given by the Woman' Home Mission Society of the North Texas Annual Conference of the M. E. Church, South. This society has recently purchased a desirable site of eight acres of land adjoining the College property, and proposes to erect thereon a good brick dormitory large enough to accommodate fifty students. It is their purpose to educate young women for mission work, and they have chosen the College of Industrial Arts because it affords the combination of culture and industrial education which they are seeking. They will supplement our educational work with religious training in their own dormitory. The work of building will begin in the spring, and it is the expectation that the dormitory will be ready for students in September, 1906. The fact that the dormitory is to be personally supervised by Mrs. L. H. Potts, now of Dallas, is sufficient guarantee that it will be a delightful and comfortable home for those students of the College of Industrial Arts who are fortunate enough to secure boarding there. The Methodist dormitory will be a valuable addition to our College community. The following quotation from a communication from Mrs. Potts, who is president of the above named society, makes clear the plan and purpose of the dormitory:

"By the action of the Woman's Home Mission Society of the North Texas conference, in their recent session in Denton, it was determined to build a dormitory, which shall be under deaconess direction, contiguous to the College of Industrial Arts. The purposes of this dormitory are herein set forth:

1. "That, as a Home Mission Society, we may have a place where, at a reasonable cost, we may send such young women of our church as may wish to enter the practical work of our educational institutions, our settlement homes, city missions, etc.
2. "That we shall make this institution self-supporting by taking young women of any or no religious faith, who will conform to the household regulations.
3. "That these regulations will be such as may control all boarding school dormitories, and will be in harmony with the management of the College of Industrial Arts.

4. "That, while under the control of the Woman's Home Mission Society of the Methodist Episcopal Church, South, it will not be sectarian in its purposes.

5. "That we will have the dormitory ready for the fall term of 1906-1907.

6. "That we will build as capacious a building as the generosity of the friends and supporters of the enterprise will make it possible for us to do. We pledge ourselves, however, to care for not less than thirty young women for the year 1906-1907. Our desire is to have as many more as will be made possible.

7. "The building shall be of brick and so constructed as to allow wings to be added as funds are raised for the continuance and development of the enterprise.

8. "There shall be a two years' course of Bible Study, Sociology and General Church History, which shall be elective."

Students and prospective students desiring to secure boarding in the dormitory should write to Mrs. L. H. Potts, 377 Worth St., Dallas, Texas.

EXPENSES.

Tuition in the College of Industrial Arts is free. The following are the essential expenses to be met by students:

Matriculation fee, payable on first registration at the College	$5 00
Incidental fee of $5.00, payable at the first of each term	15 00
Material and supplies fee, $2.50, payable at the first of each term	7 50
Text-books, etc., per year, about	10 00
Boarding and room, per calendar month, two in a room, from	$14.00 to 15 00

Add to these proper allowances for clothing, laundry and other personal expenses; also railroad fare to Denton and return, and a small allowance for incidentals. Two hundred and twenty-five dollars will cover all essential expenses of a student in the College of Industrial Arts for the year; some spend more than this, others less.

On account of the fact that the Legislature failed to appropriate enough money for the purchase of materials and departmental supplies, the Regents have been compelled to charge a material fee of $2.50 per term. This fee must be paid by appointive students as well as non-appointive students.

The fees are payable strictly in advance. The matriculation fee is paid but once for all time, but must be paid by all students, whether appointive or not, whether regular, irregular or special. Appointive students receive credit for the incidental fees ($15) and have the free use of text-books ($10.) Special students are required to pay the same fees as regular students. Fees will not be refunded to students who leave school during the term. Students who desire to take private lessons in music, which may be arranged for with special teachers in town, will be expected to pay from 50 cents to $1.00 per lesson. Such lessons must not interfere with the regular school work of students.

Students taking painting and designing must furnish their own brushes, pens, paints, etc. Also, those who take china painting must pay for the ware on which to paint. This is furnished to them at cost, and is their own property. All students are entitled to the free use of library facilities and apparatus in the different departments in which they work. They are held responsible for damage to equipment resulting from their own carelessness.

SUMMER SCHOOL POSTPONED.

The Summer School of the College of Industrial Arts was opened in June, 1905, to afford an opportunity for industrial training to those who cannot attend the regular sessions. Members of the regular faculty volunteered to give the instruction, and the Regents authorized the establishment of the Summer School with the understanding that it should be made a regular feature of the college work, and that they would ask the state legislature to support it financially. Accordingly the twenty-ninth legislature was requested to appropriate $1000 per year for the maintenance of the Summer School in 1906 and 1907. To support the school by tuition charges is not practicable, as this debars many who most need and desire its advantages. The Summer School should provide short practical courses of work at small cost to its students—at even less proportionate expense, if possible, than that incurred by those who attend the regular sessions of the College. The summer session of 1905 was conducted at a personal sacrifice on the part of the teachers; it was fairly well attended, and was a decided success. However, the legislature felt unable to make an appropriation for the continuance of the work, and the Regents are compelled to discontinue the Summer School until the state can give it the necessary support.

CONCISE INFORMATION.

The College of Industrial Arts is the Texas State College for young women.

Each subject in the curriculum is taught by a specialist.

Young women may here learn trades suited to their tastes and capacities.

Members of the Senior class must make their own graduating dresses.

Science and art are taught in their application to everyday life.

This is not an orphanage, a hospital, an asylum nor a reformatory.

It is a high class school for rich and poor alike, if they desire to attend it and can meet the conditions for entrance.

The health of the students is a first consideration. The College Physician teaches physiology and hygiene and renders free service to students who are taken sick.

The College graduated one student in 1904, nine in 1905, and there are twenty-nine in the present Senior class.

The cost of attending the College, including all necessary expenses, is about $215 per year. Most of this is for board. No tuition is charged.

The College of Industrial Arts is the only institution of its kind in the Southwest. It provides for general training, for technical instruction and for practical usefulness and success in life.

The College has no funds for paying the way of students without means. A few student-assistants are employed, but these are chosen from among the students of the previous year who are in need of the help and who have proven their ability to render acceptable service.

RECENT INDORSEMENTS.

NORTH TEXAS CONFERENCE.

The North Texas Conference of the M. E. Church, South, at its annual meeting in Sulphur Springs, November 25, 1905, adopted the following resolution by a unanimous vote:

"Resolved, That we indorse the action of the Woman's Home Mission Society in its purpose to erect a dormitory in Denton contiguous to the State College of Industrial Arts, and that we each present the matter to our congregations at some time before the first of May, and take a collection for the same."

The resolution was introduced by Rev. T. H. Morris, and was signed by him and by Rev. P. R. Knickerbocker, Rev. Jno. M. Moore, Rev. J. L. Pierce, Rev. T. S. Barton, Rev. E. W. Alderson, and Rev. M. H. Neely. Mr. Morris made a strong speech in behalf of the enterprise.

Mrs. L. H. Potts and Mrs. L. P. Smith were introduced and made most excellent addresses, outlining the importance of the dormitory and the good work and the good results that would follow the successful management of the enterprise. In presenting these accomplished and charming ladies the bishop made a most graceful and gallant speech. He invited them to talk just as long as they desired and it would be a pleasure to listen to them.

FEDERATION OF WOMEN'S CLUBS.

The Texas Federation of Women's Clubs, assembled in annual meeting at Austin, November 22, 1905, passed the following motion unanimously:

"Moved, That we heartily indorse the work being done for the young women and the homes of our state by the College of Industrial Arts; that we commend this excellent institution to the favor, patronage and support of the people of Texas; and that we request our Committee on Education to take special cognizance of this, the state college for women, to visit it if possible, and to present a full report of the work of the school at the next annual meeting of the State Federation."

Before the Convention adjourned the following resolution was unanimously adopted as a part of the plan of work of the clubs for the coming year:

"Resolved, That it be a part of the regular work of every club in this Federation to inform the citizens of its community regarding the aims of our College of Industrial Arts and the work being accomplished therein."

APPOINTIVE STUDENTS.

The Board of Regents of the College of Industrial Arts has, according to law, made provision for about two hundred appointive students, to be apportioned throughout the State on the basis of the number of educable white girls in the several counties. The number of appointees to which each county is entitled is shown by the list on pages following. The allotment in each case applies to the entire county, including all independent and community districts. It will be noticed that in numerous cases, where the population is sparse, several counties are grouped together as being entitled to but one appointive student. In such case the superintendents involved are expected to confer in making the appointment.

All qualified individuals will be made welcome in the school, whether they are fortunate enough to receive an appointment or not; that is, the holding of an appointment is not essential to entrance, and does not secure special privileges for the holder. The advantages of appointment are: 1. The incidental fees, amounting to $15 per year, are remitted to appointive students. 2. Appointive students will be given the free use of text-books, which saves about $10 per year. This makes an appointment worth about $25 per year. An appointment holds good only for the scholastic year for which it is issued, or for such fraction thereof as the student named in it may actually attend the College. Appointive students who leave school during the year thereby forfeit their appointments.

Appointments to the College are to be made as indicated in the apportionment table given below, and according to the following regulations adopted by the Board of Regents:

1. All appointees shall be qualified as indicated in "Conditions for Entrance," and as set forth in the certificate of appointment furnished to county superintendents by the College. Appointive students are not exempt from the entrance examinations, except when they hold high school certificates, State certificates, certificates from approved schools, or other satisfactory credentials.

2. The appointments shall be made by the superintendents of schools of the various counties, the qualifications of appointees to be determined preferably by competitive examination, or by any other method said superintendents may see fit to employ.

3. Where two or more counties are grouped in the apportionment table the appointments shall be made by joint action of the superintendents involved.

4. All appointments shall be officially reported to the President of the College before the first day of June. Appointments not so reported shall revert to the institution, and may be allotted and conferred at the discretion of the President of the College, or according to the further instructions of the Board.

5. In case any appointee should later find it impracticable to fulfill her appointment, the appointing superintendent shall have authority to transfer it to another worthy applicant in his county, provided that such transfer shall be made and properly certified to the President of the College before the opening of the term, in September.

6. County Superintendents shall publish notice in a newspaper of their county, or counties, at least three weeks before the appointments are made, as provided in the law.

APPORTIONMENT OF APPOINTIVE STUDENTS BY COUNTIES.

Following is given the number of appointive students to which the several counties are at present entitled. The instructions to county superintendents quoted above indicate the method of appointment. Blank certificates of appointment, giving details of qualification, will be furnished to superintendents by the College.

Anderson	1
Angelina	1
Aransas (see Bee).	
Archer (see Jack).	
Armstrong (see Donley).	
Atascosa and Frio	1
Austin	1
Bandera, Kerr and Edwards	1
Bastrop	1
Baylor (see Wilbarger).	
Bee, San Patricio, Refugio and Aransas	1
Bell	3
Bexar, 4; Guadalupe, 1; Bexar and Guadalupe, 1	6
Blanco (see Gillespie).	
Borden (see Scurry).	
Bosque (see Johnson).	
Bowie	2
Brazoria; Matagorda, Jackson and Calhoun	1
Brazos	1
Brewster (see Presidio).	
Briscoe (see Floyd).	
Brown	1
Burleson	1
Burnet	1
Caldwell	1
Calhoun (see Brazoria).	
Callahan, Shackelford and Throckmorton	1
Cameron	2
Camp and Morris	1
Carson (see Potter).	
Cass	1
Castro (see Floyd).	
Chambers (see Jefferson).	
Cherokee, 1; Houston, 1; Cherokee and Houston, 1	3
Childress (see Hardeman).	
Clay and Wichita	1
Coke, Mitchell, Howard, Sterling Glasscock, Midland, Martin, Ector and Ward	1
Coleman	1
Collin	4
Collingsworth (see Donley).	
Colorado	1
Comal and Kendall	1
Comanche	2
Concho (see Tom Green).	
Cooke	2
Coryell	2
Cottle (see Hardeman).	
Crockett (see Val Verde).	
Crosby (see Floyd).	
Dalham (see Potter).	
Dallas	5
Dawson (see Scurry).	
Deaf Smith (see Donley).	
Delta	1
Denton	2
De Witt (see Gonzales).	
Dickens (see Floyd).	
Dimmit (see Maverick).	
Donley, Hall, Collingsworth, Armstrong, Randall and Deaf Smith	1
Duval and Zapata	1
Eastland (see Erath).	
Ector (see Coke).	
Edwards (see Bandera).	
Ellis	4
El Paso	2
Erath, 2; Eastland, 1; Erath and Eastland, 1	4
Falls	2
Fannin	4
Fayette	1
Fisher (see Scurry).	
Floyd, Hale, Motley, Dickens, Crosby, Lubbock, Briscoe, Swisher, Castro, Lamb and Parmer	1
Foard (see Hardeman).	
Fort Bend (see Wharton).	
Franklin	1
Freestone	1
Frio (see Atascosa).	
Gaines (see Scurry).	
Galveston	2
Garza (see Scurry).	

Gillespie and Blanco 1
Glasscock (see Coke).
Goliad (see Victoria).
Gonzales, 1; De Witt, 1; Gonzales and De Witt, 1 3
Gray (see Potter).
Grayson 4
Gregg and Marion 1
Grimes 1
Gualalupe (see Bexar).
Hale (see Floyd).
Hall (see Donley).
Hamilton 1
Hansford (see Potter).
Hardeman, Foard, Childress, Cottle, King and Stonewall 1
Hardin (see Tyler).
Harris 3
Harrison 1
Hartley (see Potter).
Haskell (see Jones).
Hays 1
Hemphill (see Potter).
Henderson (see Smith).
Hidalgo 1
Hill 3
Hood and Somervell 1
Hopkins 2
Houston (see Cherokee).
Howard (see Coke).
Hunt 4
Hutchinson (see Potter).
Irion (see Tom Green).
Jack and Archer 1
Jackson (see Brazoria).
Jasper, Orange and Newton 1
Jeff Davis (see Presidio).
Jefferson and Chambers 1
Johnson, 2; Bosque, 1; Johnson and Bosque, 1 4
Jones and Haskell 1
Karnes and Live Oak 1
Kaufman 2
Kendall (see Comal).
Kent (see Scurry).
Kerr (see Bandera).
Kimble (see Val Verde).
King (see Hardeman).
Kinney (see Maverick).
Knox (see Wilbarger).
Lamar 3
Lamb (see Floyd).
Lampasas (see San Saba).
La Salle (see Maverick).
Lavaca 2
Lee 1
Leon 1
Liberty (see Montgomery).
Limestone 2
Limpscomb (see Potter).
Live Oak (see Karnes).
Llano and Mason 1
Lubbock (see Floyd).
Lynn (see Scurry).
Madison and Walker 1
Marion (see Gregg).
Martin (see Coke).
Mason (see Llano).
Matagorda (see Brazoria).
Maverick, Kinney, Zavala, Dimmit, La Salle and McMullen 1
McCulloch (see Tom Green).
McLennan 3
McMullen (see Maverick).
Medina and Uvalde 1
Menard (see Val Verde).
Midland (see Coke).
Milam 2
Mills 1
Mitchell (see Coke).
Montague 2
Montgomery and Liberty 1
Moore (see Potter).
Morris (see Camp).
Motley (see Floyd).
Nacogdoches, 1; Shelby, 1; Nacogdoches and Shelby, 1 3
Navarro 3
Newton (see Jasper).
Nolan (see Runnels).
Nueces 1
Ochiltree (see Potter).
Oldham (see Potter).
Orange (see Jasper).
Palo Pinto 1
Panola 1
Parker 2
Parmer (see Floyd).
Pecos (see Presidio).
Polk and San Jacinto 1
Potter, Oldham, Hartley, Dallam, Sherman, Moore, Hutchinson, Hansford, Ochiltree, Roberts, Lipscomb, Hemphill, Wheeler, Gray and Carson 1
Presidio, Brewster, Pecos, Jeff Davis and Reeves 1
Rains (see Wood).
Randall (see Donley).
Red River 2
Reeves (see Presidio).
Refugio (see Bee).
Roberts (see Potter).
Robertson 1
Rockwall 1
Runnels and Nolan 1
Rusk 1
Sabine (see San Augustine).
San Augustine and Sabine 1
San Jacinto (see Polk).
San Patricio (see Bee).
San Saba and Lampasas 1
Schleicher (see Val Verde).
Scurry, Fisher, Borden, Kent, Garza, Lynn, Terry, Dawson and Gaines 1
Shackelford (see Callahan).

Shelby (see Nacogdoches).
Sherman (see Potter).
Smith, 1; Henderson, 1; Smith and Henderson, 1 3
Somervell (see Hood).
Starr 1
Stephens (see Young).
Sterling (see Coke).
Stonewall (see Hardeman).
Sutton (see Val Verde).
Swisher (see Floyd).
Tarrant 3
Taylor 1
Terry (see Scurry).
Throckmorton (see Callahan).
Titus 1
Tom Green, McCulloch, Concho and Irion 1
Travis, 2; Williamson, 2; Travis and Williamson, 1 5
Trinity 1
Tyler and Hardin 1
Upshur 1
Uvalde (see Medina).
Val Verde, Kimble, Menard, Sutton, Crockett and Schleicher 1
Van Zandt 2
Victoria and Goliad 1
Walker (see Madison).
Waller (see Washington).
Ward (see Coke).
Washington, 1; Waller and Washington, 1 2
Webb 2
Wharton and Fort Bend 1
Wheeler (see Potter).
Wichita (see Clay).
Wilbarger. Baylor and Knox 1
Williamson (see Travis).
Wilson 1
Wise 2
Wood, 1; Rains and Wood, 1 2
Young and Stephens 1
Zapata (see Duval).
Zavala (see Maverick).

QUALIFICATIONS FOR APPOINTMENT.

Blank certificates of appointment are furnished to county superintendents by the College, which certificates, when filled out, should be returned to the President of the institution. They should reach him before the first day of June. Following is the wording of the certificate:

To the President of the College of Industrial Arts:

Having examined into the qualifications of Miss ..... of ..... county, and knowing her to be of good moral character, diligent habits and worthy ambitions, and as being well trained in Orthography, Reading, Arithmetic, English Grammar, Composition, Geography, Physiology and Hygiene, History of Texas, and United States History and Civil Government, as these subjects are required to be taught in the Common Schools of Texas; and believing said Miss ..... to be in all respects well worthy of the opportunity of attending the College of Industrial Arts, I, the undersigned Superintendent of Schools of ..... county, do hereby appoint her as a student in said College of Industrial Arts, in accordance with the law and the regulations of the Board of Regents, and subject to the entrance requirements of said College. This appointment to be for the scholastic year 190.....-190..... The age of the above named appointee is ..... years. Her postoffice address is ....., ... county, Texas. Her (father's, mother's, guardian's) name is .....

Respectfully submitted,

.....,

Superintendent of Schools, ... County.

Date ....., 190.....

GENERAL NOTES.

The "Friday Lectures" for the students and general public have been well attended. The following numbers have been given:

"Education in Japan" (illustrated by stereopticon views)—Mr. Banks.
"Domestic Science"—Miss Bell. (Printed in this Bulletin.)
"Children's Dress" (illustrated)—Mrs. Brooks.
"The Enjoyment of Pictures" (illustrated)—Miss Sprague.
"A Talk on Hygienics"—Dr. Evans.

By invitation of the Women's Shakespeare Club of Denton, Mrs. Smith, of the Industrial Arts faculty, gave a talk, accompanied by stereopticon illustrations, on Spain, in the college chapel, February 1st. Mrs. Smith's personal knowledge of Spain lent peculiar interest to the subject.

The Senior class is preparing for publication in June the first college annual to be issued from this school. The paper, binding, typography, and engraving will all be of high quality, and the publication will be profusely illustrated. It will of course be of the keenest interest to the students, but the alumni and friends of the institution will, we are sure, welcome it and wish to possess a copy of the first students' annual, which will be a bright, handsome souvenir of the college.

Under the auspices of the Chaparral Literary Society, another new publication has been inaugurated, called "The Chaparral Monthly." It contains college news, class notes, contributed articles, etc. The first number appeared in February and there will be a double number in June. The yearly subscription has been fixed at seventy-five cents.

The Second Preparatory Class has organized a tennis club and a new literary society, named, after the great poet, the Elizabeth Browning Society.

President Work delivered a lecture, illustrated by over a hundred stereopticon views, on the subject of "Industrial Education," at the college, January 19th, before the Denton County Teachers' Institute. He has also lectured on the same subject recently to teachers' institutes at Greenville, Baird and Abilene, and at Colorado City, and at the Northwest Texas Teachers' Association at Bowie. He will lecture at Mineola, March 1; Tyler, March 2; Kaufman, March 3; Brownwood, March 9; Leonard, March 15; Paris, March 16; Clarksville March 17; Stephenville, March 23; Cleburne, March 30; Fort Worth, April 13; and at the Tri-County (Fannin, Lamar, Red River) Teachers' Institute, Ladonia, April 20.

Miss Marie Poynor, of the class of 1905, was a recent visitor at the College. Miss Poynor is in charge of the new domestic science department of the Paris High School. As the equipment for the work has not yet been installed, she is at present teaching the high school chemistry.

Miss Laura Neale, another member of the class of 1905, who is teaching domestic science in the Fort Worth High School, visited the College in the latter part of February. Miss Neale reports that the Fort Worth

school has this year established a lunch counter, which is proving to be very popular with teachers and pupils. While this is not a regular feature of the domestic science work, it is under the supervision of the domestic science department.

Miss Sara Kirkpatrick and Miss Lena Bumpas, of the same class, are assisting at the College of Industrial Arts, the former in the Fine and Industrial Arts Department, the latter in the Domestic Arts Department.

Miss Emma Pirie of San Antonio, who took the courses in Domestic Science and Domestic Art in the Summer School of the College of Industrial Arts in 1905, is in charge of these lines of work in the San Antonio public schools.

Miss Mabel Wheeler attended the convention of the Young Women's Christian Association, held at Nashville, Tennessee, February 28 to March 4, as a delegate from the College. Miss Eloise Punchard and Miss Cora Reynolds were also present.

For fun and jollity, the most successful social event of the college year was the "tacky party," given by the Junior class, on the evening of January 29. In order to add to the class funds, an admission fee was charged according to the rank of the class: five cents for the First Preparatory; ten cents for the Second Preparatory; irregular students, fifteen cents; Juniors fifteen; Seniors twenty; faculty, twenty-five cents; those not in appropriate costume, fifty cents. The prize was won by Miss Bertha Bowles. Refreshments of red lemonade and ginger snaps were served.

A musical entertainment, given by the Boynton Company, closed the successful lecture course organized by the Senior class. Previous numbers were a lecture on Shakespeare by Frederick Warde, the well known actor, and an evening of readings from his own works by Opie Read.

Denton is rejoicing in the prospect of a new railroad—the Texas, New Mexico & Pacific, which will be built from McKinney to Denton. This road will add to the importance of Denton as a railroad center, and make the city still more accessible to students from the east and west.

The closing week of the College year, "commencement time," begins Sunday, June 3d, with the Baccalaureate services. Monday is set apart for Class Day exercises; Tuesday is Demonstration and Exhibition Day, with the President's reception to the graduating class in the evening. Wednesday, June 6th, is Commencement Day.

College Bulletin No. 12 (December. 1905) was "Woman's Club Number," and contained several short addresses bearing on the purpose and value of the College of Industrial Arts and the desirability of such training as it offers to young women. Copies sent on request.

In the Domestic Science department the senior students have been interested in a course of lessons in invalid cookery, which have included

the planning of menus and the actual preparation and serving of the food in a dainty way to tempt the appetite of a convalescent patient; as well as the preparation of broths, gruels, and such diet as would be given to patients still suffering with disease.

In the Home Economics course, the students, having planned their houses on a sanitary basis, are now planning the furnishing of the same. They first studied the cost of equipment, and then, on a given sum, completely furnished their kitchens, including choice of stove, ice chest, etc. In connection with this work, the rational division of a moderate income for a typical family has been discussed, also the cost and proper combination of food materials. They will plan their menus, work out the percentage of nutrients represented, and then compare the result with the dietary standards as advised by scientific investigators, making such changes as may be necessary to give the desired result. These dietaries will also be limited in cost.

In the Millinery and Dressmaking department the Seniors have finished buckram frames and commenced wire frame making, preparatory to making straw hats. The Juniors have drafted the shirtwaist pattern and almost completed one uniform shirtwaist. A dainty white Persian lawn, with tucks and insertion, will follow. The Preparatory classes are working on underwear, and the experience of drafting their own patterns and actually making garments for themselves is a great stimulus.

The photographic department of the College has recently turned out some fine stereopticon slides. Schools or individuals wanting the best lantern slides at reasonable prices should correspond with the College of Industrial Arts. Plain or colored slides of any picture can be furnished.

Preparations are now being made for the spring gardening, seed testing being in progress, each class testing the germinating power of various garden seeds. Tests are being made also in kinds of soil, cultivation, etc. The green-house attracts many visitors, who buy liberally of the flowers.

Every superintendent, principal, teacher and school officer in our State should read Superintendent Maxwell's address—"Education for Efficiency"—published in this issue of the Bulletin.

STUDENT ORGANIZATIONS.

The following are the existing student organizations in the College of Industrial Arts:

CHAPARRAL LITERARY SOCIETY.
President, Cora Nell Freeman.
Secretary, Katherine McLeod.

ELIZABETH BROWNING LITERARY SOCIETY.
President, Minnie Ward.
Secretary, Ella Schroeder.

READING CIRCLE.
Reader, Miss Fay.
Busy-work Listeners, Senior Class.

ALLEN READING CLUB.
President, Elsie Jonas.
Secretary, Ruby Graham.

DEUTSCHE GESELLSCHAFT.
President, Gertrude Denny.
Secretary, Cressie Beckman.

YOUNG WOMAN'S CHRISTIAN ASSOCIATION.
President, Mabel Wheeler.
Secretary, Mary Glass.

SPECIAL CLASS.
President, Sara Kirkpatrick.
Secretary, Lena Bumpas.

SENIOR CLASS.
President, Grace Taylor.
Secretary, Georgia Bryant.

JUNIOR CLASS.
President, Eula Turner.
Secretary, Lucile Stallcup.

SECOND PREPARATORY CLASS.
President, Lura Durham.
Secretary, Ivah Brock.

FIRST PREPARATORY CLASS.
President, Inez Scherer.
Secretary, Annie Andrews.

IRREGULAR CLASS.
President, Julia Chernosky.
Secretary, Nellie Breihan.

COLLEGE ANNUAL.
Editor-in-Chief, Emily Easley.
Business Manager, Mary Kimbrough.
Editorial Staff, fifteen in all.

CHAPARRAL MONTHLY.
Editor-in-Chief, Mabel Wheeler.
Business Manager, Eula Turner.

GLEE CLUB.
President, Olalee Lyon.
Secretary, Mollie Stone.

DOMESTIC ARTS CLUB.
President, Ora Blair.

BRUSH AND PENCIL.
President, May Clark.
Guide, Willia Huckaby.

TENNIS CLUB.
President, Steva Birdsong.
Secretary, Eula Dunks.

SENIOR BASKET BALL TEAM.
Captain, Grace Taylor.

JUNIOR BASKET BALL TEAM.
Captain, Opal Frazer.

A REQUEST.

The young women of Texas ought to know about the College of Industrial Arts. Particularly should information regarding it be furnished those who think of leaving home to attend school, or who ought to be encouraged to continue their education. Will the reader of this please write, on Information Blank—A, following, the names of any such young women, and mail the blank to the President of the College at an early date? This favor will be appreciated by the College, and also, doubtless, by the recipient of the matter that will be forwarded.

Any one who thinks of entering the College in the fall will please fill out and forward Information Blank—B.

(BULLETIN NO. 13.)

INFORMATION BLANK—A.

To the President, College of Industrial Arts, Denton, Texas.

Kindly send a copy of the College Bulletin to the young women named below. They will be interested in it, and might possibly attend the College.

Signed.....

.....

(Cut Here.)

NAME	ADDRESS

Remarks.....

.....

.....

.....

.....

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(BULLETIN NO. 13.)

INFORMATION BLANK—B.

Fill the blanks below, cut out this sheet and mail it to President Cree T. Work, College of Industrial Arts, Denton, Texas, at once.

Date ....., 1906.

I am planning to attend the College of Industrial Arts, beginning September 18, 1906.

Name in full ..... Age .....

Postoffice .....

County .....

Have you an appointment to the College? .....

Name of parent or guardian .....

If you have not had a high school course, in which grade were you when last in school? .....

What certificates or diplomas have you, if any? .....

.....

Do you expect to enter as a regular student, irregular student, or special student? .....

.....

Which course would you like to take? .....

.....

.....

Do you want a boarding place selected in advance of your arrival?

.....

Add any other information or request here. .....

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FACULTY.

MR. CREE T. WORK, *President,* 1902—*Psychology, Ethics, Manual Training,*

State Normal School, Indiana, Pa.—B. E. D., 1890; M. E. D., 1892. Boston Sloyd Training School—Diploma, 1893. Columbia University—Teachers College Higher Diploma, 1900. Honorary Life Diploma of the State of Colorado, 1901. Superintendent of Schools, Du Bois, Pa., 1890-1892. Director of Industrial Department, State Normal School of Colorado, 1892-1900. Fellow in Manual Training, Teachers College, 1899-1900. Supervisor of Manual Training for the City of San Francisco, 1900-1903.

MRS. GESSNER T. SMITH, *Preceptress,* 1905—*Modern Languages and Latin, 1903—*

Student in Berlin and Madrid, 1885-1886; at the Sorbonne, Paris, 1900-1901; University of Chicago, 1897. Mistress of Modern Languages, Industrial Institute and College of Mississippi, 1886-1888. Student and Teacher, Tuscaloosa Female College, Ala., 1892-1895. Teacher in East Tennessee Institute, 1895-1900. Mistress of Modern Languages and Instructor in Latin, Industrial Institute and College of Mississippi, 1901-1903.

MISS LUCY E. FAY.—*English Language and Literature, 1903—*

Student in Kleinburg School, Virginia. Tulane University—Newcomb College—A. B., 1895. University of Texas—A. M., 1901. Private Tutor, 1896-1897. Teacher in Whitis School. Austin, Texas, 1901-1903.

MISS JESSIE H. HUMPHRIES.—*History and Economics, 1903—*

Howard Payne College—A. B., 1896. University of Chicago—A. B., 1899. Teacher Elementary Schools. Instructor in English and History, Bonham High School, 1900-1902; Dallas High School, 1902-1903.

MR. A. L. BANKS.—*Mathematics, 1903—*

Marvin College—A. B., 1880. Agricultural and Mechanical College of Texas—B. S., 1892; M. S., 1894. Professor of Mathematics, Marvin College, 1880-1883. Professor of Mathematics, Salado College, 1883-1884. Principal Bryan High School, 1884-1891. Associate Professor of Mathematics, Agricultural and Mechanical College of Texas, 1891-1903.

MR. C. N. ADKISSON.—*Physical Science and Photography, 1903—*

Central College, Texas—A. B., 1890. Graduate in Bacteriology, University of Louisville, 1891. Student Vanderbilt

University, 1892. Instructor in Science, Polytechnic College, Fort Worth, 1892-1897; Granbury College, 1898; Randolph College, 1899-1901; Terrell University School, 1901-1903. Instructor in Chemistry and Physics, Colorado Chautauqua, 1902-1903.

MISS HARRIETT V. WHITTEN.—*Biological Science, Geology and Geography, 1903—*
University of Texas—B. S., 1898; M. S., 1900. Student Assistant in Geology, University of Texas, 1897-1899. Tutor in University of Texas, 1899-1902. Instructor in Geology, University of Texas, 1902-1903.

MISS MARY LOUISE TUTTLE.—*Supervising Instructor in Domestic Science.—Cookery, Dairying, 1905—*
St. Margaret's Diocesan School, Waterbury, Conn., 1885. Diploma in Domestic Science, Teachers College, Columbia University, 1902. Assistant in Domestic Science, Teachers College, 1901-1902. Tutor in Domestic Science, Teachers College, 1902-1903. Student Connecticut Agricultural College, 1903. Instructor in Domestic Science, College of Industrial Arts, 1903-1905.

MISS MARTHA T. BELL.—*Assistant Instructor in Domestic Science.—Cookery, Laundering, 1905—*
Peabody College for Teachers, University of Nashville, 1889. Normal Department, Drexel Institute, Philadelphia, 1902. Student in Art, Hardin College, Mexico, Missouri, 1889-1890. Director of Domestic Science, Holyoke, Massachusetts, 1902-1903. Private Classes, 1903-1904. Director of Domestic Science, Allan Manual Training School, Austin, Texas, 1904-1905.

MRS. HELEN B. BROOKS.—*Domestic Art.—Sewing, Dressmaking, Millinery, 1903—*
Graduate Beck's Commercial School, Ohio, 1898. Pratt Institute, Brooklyn, New York—Domestic Art, 1903. Commercial Secretary, 1899-1901. Instructor in Sewing, St. Bartholomew's Industrial School, New York City, 1902-1903. Assistant Instructor, Pratt Institute, 1902-1903.

MISS AMELIA B. SPRAGUE.—*Fine and Industrial Arts, 1903—*
Cincinnati Art Academy, 1887-1891. Designer, Decorator and Teacher at Rookwood Pottery, Cincinnati, 1899-1902. Pratt Institute, 1899-1900, 1902-1903. Private Teacher of Drawing, Water Color, Basketry and China Painting. Normal Art Instructor, Madisonville, Ohio, Public Schools, 1902. Instructor in Hand-work in Asacog and Greenpoint Social Settlements, Brooklyn, N. Y., 1903. Instructor in Art and Hand-work, Ohio State Normal School, Miami University, 1903.

MISS S. JUSTINA SMITH.—*Elocution, Physical Culture, Vocal Music. 1905—*

Student, College of Music, Cincinnati, Ohio, 1892-1894. Detroit Conservatory of Music, Michigan, 1895. New England Conservatory, Boston, 1904. Posse Gymnasium, Boston, 1903-1904. Graduate Emerson College of Oratory, 1904. Post Graduate, 1905. Private Instructor in Elocution, Physical Culture and Vocal Music. Pipe Organist. Teacher of Vocal Music, Public Schools, Detroit, Michigan, 1895. Instructor in Elocution and Physical Culture, Training Department of Emerson College, 1905.

MR. HARRY GORDON ALLEN.—*Commercial Art, 1903—*

Ottawa University, Kansas. University of Chicago, 1899-1901. Expert Court Reporter. Accountant. University Stenographer. Director Commercial Department, High School, Dubuque, Iowa, 1901-1903.

MISS REBECCA M. EVANS, M. D.—*Physician, and Lecturer on Physiology and Hygiene, 1903—*

Mount Union College, Normal Department, Alliance, Ohio, 1892. Northwestern University, Woman's Medical College, Chicago, 1902. Teacher High School, 1893-1898. Interne New England Hospital for Women and Children, Boston, 1902-1903.

MR. WILLIAM J. SOWDER.—*Instructor in Rural Arts and Superintendent of Grounds, 1905—*

Sam Houston Normal, 1892. Peabody Normal College, Nashville, Licentiate Diploma, 1896. University of Nashville, B. S., A. B., 1897. Graduate Student, University of Chicago, 1900. Teacher in Texas Puclic Schools, 1886-1890. Principal Public School, Miami, Texas, 1892-1894. Principal High School, Wichita Falls, Texas, 1897-1900. Teacher of Latin, Greek, and History, North Texas Normal, 1900-1901. Instructor of Irregular Students, Agricultural and Mechanical College of Texas, 1901-1902. Instructor Normal Department, Tyler College, Tyler, Texas, 1902-1903. Substitute Instructor in History and Economics, College of Industrial Arts, 1904-1905.

STUDENT ASSISTANTS—1905-6.

MISS MABEL WHEELER.—*English.*
MISS GERTRUDE REEVES.—*History.*
MISS DORA WARREN.—*Latin.*
MISS NELLIE MILLS.—*Chemistry.*
MISS MARY FAIN.—*Domestic Science—Cooking.*
MISS PEARL BLOW.—*Domestic Science—Cooking.*
MISS ORA BLAIR.—*Domestic Science—Laundering.*
MISS LENA BUMPAS.—*Domestic Art.*
MISS VIRGINIA MILLS.—*Domestic Art.*
MISS SARA KIRKPATRICK.—*Industrial Art and Manual Training.*
MISS OLA HERREFORD.—*Clerical Work.*

MR. THOMAS P. PRICE, *Secretary.*

MR. W. H. HATFIELD, *Florist.*

MR. J. W. ELLASON, *Gardener.*

MR. C. W. FERGUSON, *Engineer.*

MR. J. E. JONES, *Dairyman.*

FACULTY COMMITTEES.

Curriculum.

MR. ADKISSON. MISS TUTTLE. MISS SPRAGUE.
MISS HUMPHRIES. MR. ALLEN.
MRS. BROOKS. MR. BANKS.

Classification.

MR. BANKS. MISS FAY. MISS BELL.
MISS HUMPHRIES. MRS. SMITH.
MISS WHITTEN. MR. ADKISSON.

Graduation and Certification.

MR. ADKISSON. MISS TUTTLE. MISS FAY.
MISS SPRAGUE. MR. ALLEN.

Literary Societies and Press.

MR. ALLEN. MISS SMITH. MISS FAY. MISS BELL.

Exhibition and Entertainment.

MISS SPRAGUE. MRS. BROOKS. MISS SMITH.
MISS TUTTLE. MRS. SMITH.

Athletics.

MISS SMITH. MR. BANKS. MR. SOWDER.

Boarding Arrangements.

MRS. SMITH. MR. BANKS. MISS TUTTLE.
DR. EVANS. MRS. BROOKS.

Mentor.

DR. EVANS. MR. BANKS. MISS WHITTEN.

The President is ex-officio a member of all committees.

BOARD OF REGENTS

OF THE

COLLEGE OF INDUSTRIAL ARTS.

HON. CLARENCE OUSLEY, *President*, Fort Worth.
MISS M. ELEANOR BRACKENRIDGE, *Vice-President*, San Antonio
MRS. HELEN M. STODDARD, *Secretary*, Indian Gap.
HON. JOHN A. HANN, *Treasurer*, Denton.
HON. J. H. LOWREY, Honey Grove.
HON. ARTHUR LEFEVRE, Victoria.
MRS. CONE JOHNSON, Tyler.

Address all inquiries to the President of the College,
CREE T. WORK, Denton.

COLLEGE CALENDAR.

1906.

Christmas Vacation Ends	Tuesday, January 2.
Second Term of Eleven Weeks, Begins	Wednesday, January 3.
Washington's Birthday—Holiday	Thursday, February 22.
Texas Independence Day—Holiday	Friday, March 2.
Second Term Closes	Saturday, March 17.
Third Term of Twelve Weeks Begins	Tuesday, March 20.
San Jacinto Day—Holiday	Saturday, April 21.
Baccalaureate Sermon	Sabbath, June 3.
Class Day	Monday, June 4.
Demonstration and Exhibition Day	Tuesday, June 5.
President's Reception to Graduating Class	Tuesday evening, June 5.
Commencement Day	Wednesday, June 6.

SUMMER VACATION.

Fall Term of Thirteen Weeks Begins	Tuesday, September 18.
Registration and Entrance Examinations	Tuesday to Thursday, September 18 to 20.
Classes Organize and Begin Work	Friday, September 21.
Reception to Students by the Faculty	Monday evening, September 24.
Thanksgiving—Holiday	Thursday, November 29.
First Term Ends	Thursday, December 20.
Christmas Vacation Begins	Friday, December 21.

1907.

Christmas Vacation Ends	Wednesday, January 2.
Second Term of Eleven Weeks Begins	Thursday, January 3.

CALENDAR.

1905.

JULY.

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AUGUST.

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SEPTEMBER.

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OCTOBER.

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NOVEMBER.

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DECEMBER.

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31	..	..	..	..	..	..

1906.

JANUARY.

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7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	..	..	..

FEBRUARY.

S	M	T	W	T	F	S
..	..	..	..	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	..	..	..

MARCH.

S	M	T	W	T	F	S
..	..	..	..	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
..	..	..	..	..	..	..

APRIL.

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	..	..	..	..	..

MAY.

S	M	T	W	T	F	S
..	..	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	..	..

JUNE.

S	M	T	W	T	F	S
..	..	..	..	..	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
..	..	..	..	..	..	..

JULY.

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	..	..	..	..

AUGUST.

S	M	T	W	T	F	S
..	..	..	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	..

SEPTEMBER.

S	M	T	W	T	F	S
..	..	..	..	..	..	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	..	..	..	..	..	..

OCTOBER.

S	M	T	W	T	F	S
..	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	..	..	..

NOVEMBER.

S	M	T	W	T	F	S
..	..	..	..	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	..

DECEMBER.

S	M	T	W	T	F	S
..	..	..	..	..	..	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	..	..	..	..	..

1907.

JANUARY.

S	M	T	W	T	F	S
..	..	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	..	..

FEBRUARY.

S	M	T	W	T	F	S
..	..	..	..	..	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	..	..

MARCH.

S	M	T	W	T	F	S
..	..	..	..	..	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	..	..	..	..	..	..

APRIL.

S	M	T	W	T	F	S
..	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	..	..	..	..

MAY.

S	M	T	W	T	F	S
..	..	..	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	..

JUNE.

S	M	T	W	T	F	S
..	..	..	..	..	..	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	..	..	..	..	..	..