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# THE CENTRAL LUZON AGRICULTURAL SCHOOL.

By KILMER O. MOE, Superintendent.

## HISTORICAL SKETCH.

**E**XECUTIVE Order No. 10, under date of April 10, 1907, set aside a tract of agricultural land from the public domain for the purpose of establishing an agricultural school. This project was fathered by Mr. T. W. Thompson (now deceased), division superintendent for Nueva Ecija, who clearly foresaw that the rich, unoccupied agricultural lands on the great plains of central Luzon were destined to be taken up and settled at an early date. He urged on every occasion the advisability of reserving a portion of these lands for the purpose of agricultural instruction and succeeded in interesting the provincial board of Nueva Ecija to the extent that the funds were voted to make a preliminary investigation.

A tract of land situated in the vicinity of Muñoz, at that time a barrio of San Juan de Guimba, was finally decided upon. This tract contained open grasslands and forest, was intersected by the main road to San José, and was seemingly well watered, being crossed by no less than three streams. With the assistance of Mr. Percy A. Hill, a former Constabulary officer who had cast his lot with this fast-developing section of central Luzon, the necessary data was obtained and presented to the proper authorities. Mr. Hill later made the preliminary survey and located all the corners of the tract.

In the meantime the Director of Education, Dr. David P. Barrows, had become interested in the project. After personal investigations both by Dr. Barrows and by Dr. Edwin B. Copeland, dean of the College of Agriculture, it was decided to present definite recommendations to the Governor-General looking toward the reservation of the tract. As has been seen, this was acted upon favorably and the project took definite form.

Before this, however, Mr. Thompson had transferred to another division and Mr. C. D. Whipple, who took his place, became official sponsor for the school. It was soon discovered that the project presented a great many more difficulties than was at first anticipated. The country was wild. Transportation of supplies had to be made over 33 kilometers of carreton trails which for several months in the year were nothing more than

a continuous succession of swamps and mud holes. At times during the rainy season, they were impassable except on horseback and then only at great risk on account of swollen streams. There were no houses within miles of the place, no land cleared, and nothing but jungle alternating with stretches of open grasslands. The funds available for the project were a mere bagatelle.

The early pioneers in America had at least the advantage of having the work accomplished by strong, able-bodied men. Here was pioneer work, also, but with immature schoolboys to do it. The problem was further complicated by the fact that all hardships were assumed voluntarily by the students, and when a number of them got discouraged and left, there was nothing stronger than moral suasion to hold them.

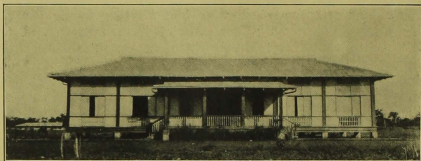
Under conditions such as these, the Central Luzon Agricultural School came into existence. A superintendent was assigned and tentative plans were laid. Before taking charge Mr. George Whiting, the first superintendent, made a visit to the United States and Mr. Durham, now of the College of Agriculture, took over the work in his absence. During this period practically no school work was attempted, but efforts were made to construct buildings that would satisfactorily house the pupils. Upon the return of Mr. Whiting immediate steps were taken to organize the school. About 50 boys were enrolled and a principal was assigned.

Three buildings of light materials had previously been constructed—one dormitory, one schoolhouse, and one building in which to prepare and serve meals. Arrangements had been made with the Bureau of Agriculture whereby a traction engine and a disk plow, 14 work animals, and an assortment of farm implements were taken over by the school. A sawmill was purchased by the Bureau of Education and installed near the building site. It really began to look as though the project was well on its way to an assured success.

But difficulties soon began to put in their appearance. On October 23 and 24, 1909, scarcely a month after the opening of classes, a terrific storm broke loose and carried away the lightly constructed buildings leaving the school practically without shelter. It is said that pieces of mosquito nets and articles of apparel belonging to the pupils were afterwards found clinging to trees 7 miles away. Immediate steps were taken to provide temporary shelter by erecting grass shacks, but the arrangement was anything but satisfactory. Fever and dysen-

tery broke out among the students and general dissatisfaction became the order of the day. The engine proved to be worn out and practically unfit either for sawing or plowing. It was not long before the majority of students grew so dissatisfied that they took French leave at first opportunity.

Obstacles continued to pile up faster and faster. It was soon evident that the responsibilities connected with an institution of this kind 20 miles away from any source of supplies and situated in a sparsely settled district, were considerably greater than had been anticipated. Other pupils were brought in to replace those who had left, only to get discouraged and leave after a few weeks. Disheartened by the number of unsuccessful attempts to build up a student body and weakened by exposure, the superintendent found himself in ill health in addition to his other troubles. He continued to grapple with the situa-



The mess hall.

tion until April of the following year, when he was relieved by Allen A. Helms of Cuyapo, Nueva Ecija.

By this time the expectation as to what actually could be accomplished had been greatly modified. The fact began to impress the school authorities with more and more force that this was a new and untried experiment, carried on under conditions which were not at all as favorable as had been represented. There were not lacking those who believed that a further expenditure would prove a useless waste of time and money. While these experiences served to show the magnitude of the undertaking, they also helped to eliminate much of what was impractical and visionary. A better grasp of essentials and a clearer vision prevailed from now on. It was decided to continue the efforts with renewed energy. A new traction engine was ordered to replace the old one and steps were taken to organize the institution on a better basis. About this time

both the Bureau of Agriculture and the provincial government of Nueva Ecija dropped out leaving the Bureau of Education in complete control.

Mr. Helms brought with him a selected number of boys from the town of Cuyapo, who stood by him loyally through all sorts of trials. This group formed a nucleus which held out against all odds. Other boys came and went, hard work and poor accommodations had to be endured, but this nucleus staid and supported the superintendent in every crisis. The grit and loyalty of these boys saved the day. Worthless and undesirable boys, being unable to stand up under the strain of hard work, soon dropped out and an industrious student body was built up through the natural process of elimination. The attendance

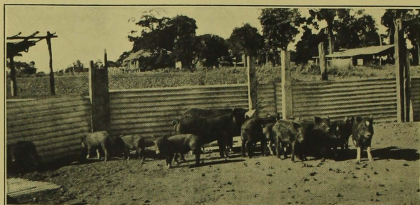


Ideal conditions for pineapples.

rose from 29 in April, 1910, to 84 in June of the same year. In December it was 127 and it has been going up steadily ever since until at present a great many more applications are received than can be approved for lack of accommodations. The present attendance is approximately 180. Separations from the school at present are due to ill health, inability to do the farm work, mental incapacity, and undesirability.

It must not be imagined that the struggle was over when Mr. Helms took charge. Lack of definite and approved plans, drought, poor accommodations, governmental red tape, destructive fires, and lack of transportation facilities, all combined to hamper progress. But through it all a steady growth was maintained. New fields were put under cultivation, provisional

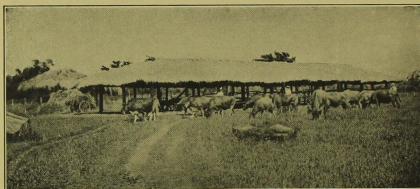
dormitories and other buildings were erected, and a school was maintained. When the writer took charge in June, 1913, the institution was on its feet, with a larger student body than could properly be accommodated. A goodly portion of the farm was under cultivation, and the accounting and administrative



Mestizo hogs segregated for observation.

features were well defined. In fact, the early struggles were over and the institution had taken its place among the insular schools of these islands as one of great promise.

These historical facts have been recorded at some length because of the criticism to which the Bureau of Education has



Work cattle at shed.

been subjected for not establishing a larger number of these schools. The difficulties which faced the Bureau in the establishment of the Central Luzon Agricultural School would have been just as pronounced elsewhere. The lessons which have been learned will prove of inestimable value in the future

program of the Bureau. The wisdom of bringing one school beyond the experimental stage before expending large sums of money in opening others will be appreciated.

#### AREA, LOCATION, AND SUITABILITY OF THE RESERVATION.

By actual survey the reservation was found to contain 657.85 hectares (approximately 1,700 acres). It is in the form of a parallelogram, the longer axis of which lies almost due east and west. The distance out from the nearest railway station is 33 kilometers, 21 of which are over a first-class road. The remaining 12 kilometers have been surveyed with a view of extending the first-class road to the school and beyond.

Adverse criticisms have been heard on various occasions because of locating an institution of this kind in such an inaccessible place. In this connection it should be noted that it is not an easy matter to secure a block of suitable land of sufficient area to meet the purpose for which this school was organized. Furthermore, at the time of organization it was hoped that Muñoz would be made the provincial capital of Nueva Ecija. The railroad, which had just been completed to Cabanatuan, was expected to extend on farther past Muñoz and San José and eventually, through a gap in the mountains, to the Cagayan Valley. The provincial authorities of Nueva Ecija even went so far as to select a provincial site in the vicinity of the agricultural school site. All of these expectations have since failed to materialize.

The land itself is typical of a large area of Luzon and is suitable for a variety of crops. It is mainly a rich brown sandy loam with outcroppings here and there of sand and gravel. Large sections of the farm are underlaid with gravel, which fact there bears out the theory that a greater portion of the land constitutes ancient alluvial deposits of streams which later changed their courses. The top layer is rich, fertile loam but, being underlaid with sand and gravel, loses its moisture very easily in dry weather. This is an advantage in the rainy season, however, as the drainage is greatly improved. A smaller portion of the farm has a clay subsoil of sufficient density to hold



A surface well.

the water and insure a good crop of lowland rice in ordinary seasons.

The entire farm, as far as tests show, is underlaid with a water strata which is reached at a depth of from 8 to 20 feet. Wells 16 feet deep furnish a constant supply of good, clear water suitable for domestic use. A test made with the engine and pump during the dry season demonstrated that a flow of 40 gallons per minute did not lower the level of the water in a 4-foot well an inch in twelve hours of steady pumping.

This fact may prove of great consequence in the future development of this farm and of the surrounding country as well. There is water in abundance in most places at a depth of less than 20 feet. As soon as the mechanical difficulties of raising it above the surface where it can be utilized for irrigation have been overcome, a very serious problem will have been solved.

The problem of securing water in sufficient quantities to mature a rice crop in all seasons is indeed a serious one. There is plenty of water in the natural streams, but the porous condition of the soil makes it a very difficult matter to utilize it to advantage on account of the enormous loss through seepage. The question of irrigation has been and is the most serious and complicated problem confronting not only the Central Luzon Agricultural School, but a large section of this fertile plain.

#### A PROBLEM OF FIRST IMPORTANCE.

The public school is receiving more attention to-day than ever before. Grave doubts are entertained by educators the world over as to whether the curriculum in vogue really provides the proper training to fit the individual for the struggle of later years. The fact is being brought home in a thousand different ways that an education which is not a preparation for a useful life is an unwarranted expense against the funds of the State. The most promising products of our schools too often turn out to be mere hothouse blossoms which, having been reared under artificial conditions, have come to luxuriant growth, but which easily wilt when removed from the artificial influences and forced to struggle for existence in a world of stern reality. In other words, there is a real education which makes a school education worth while; a preparation which every one must have but which many neglect to get. The problem of how to link school life with home life and with the real difficulties which will confront the individual after he leaves school is one which holds first place in the best educational thought of to-day.

Educators of note from the United States and elsewhere have expressed themselves to the effect that perhaps the greatest benefit derived from our sojourn in these Islands is to be found in the practical system of industrial instruction which has been established—results which throw additional light on the problems now confronting educators of other lands. The Bureau of Education has made great strides toward a satisfactory solution of this problem, largely because the work here has been organized and carried on without any regard for old tradition and precedent which, in other countries, serve merely to hamper progress.

That phase of our industrial instruction which aims to give practical lessons in agriculture easily ranks first in importance, for the reason that agriculture, in one form or other, may be said to be the only industry of any importance in the Philippines. Now, nothing is easier than to demand that agricultural instruction of a sort be given that will offer to the youth of the land an opportunity to become industrial leaders or to fit them to pursue agriculture with profit both to themselves and to the community in which they live. But to accomplish practical and effective results in conformity with this demand is not so simple as it may seem. True, academic training may easily be given but this, though ever so thorough, has but a slight bearing on the desired result. What is wanted is a human product which will be a real economic factor. Anything short of this is but rearing hothouse plants under artificial conditions.

#### PARTICIPATION IN REAL PROBLEMS.

No class of school can possibly offer so great an opportunity to participate in problems of every day life as the type to which this school belongs. Here we learn by doing. We actually grow the field and garden crops, construct buildings, roads, irrigation and drainage systems, and conduct our affairs in a manner which approximates very closely the conditions which the boys are most likely to meet with when they leave school to take up the duties of real citizenship.

Shortly after the writer arrived on the scene, he was waited on by a group of boys who demanded to be given transfers in order that they might return to their respective towns. The common complaint was that they could not "suffer the work." Most of these boys were strapping big fellows, and two or three had creditable records in athletics. But they had never had any tasks to perform which required continuous effort. We were in the midst of the rice-planting season and whatever of novelty the sit-

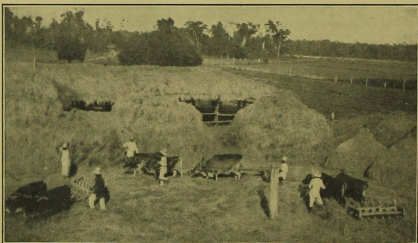


uation afforded soon wore off as hour after hour they were obliged to stand knee-deep in mud and set out rice plants. Here was a situation. Nothing whatever was the matter with any of



Schoolboys harvesting upland rice.

these boys except a lack of perseverance. Their request was flatly refused and though it took considerable persuasion, they were finally induced to go back to work, but not, however, until one or two had been placed under guard. All of these boys staid and acquired the habit of industry. From that time on they

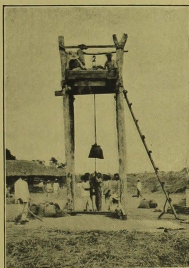


The old threshing floor. A modern thresher is now used.

caused no further trouble. Some of them have since filled places of considerable responsibility in the internal organization of the school.

Not all who gain admittance turn out so well. One rather typical case presented itself when a boy, who evidently had heard of the requirements beforehand, asked to be admitted. He promised well, stating that he was familiar with all kinds of farm work and would work seven years, if necessary. His credentials being good, it was decided to admit him on probation. After two or three days he had had enough. His palms were blistered, his back ached, and his spirit was broken. He was a sorry boy the morning he came up begging to be let off. His seven years had dwindled down to three days. Now, there are no provisions at the Central Luzon Agricultural School whereby a boy in good health can be let off from his daily tasks. He must earn his keep or he does not draw any rations. As this boy was on probation he was given five minutes either to go back to work or depart. He chose the latter and has not been heard of since.

Another rather ingenious chap, with a brain a good deal more fertile than appearances would indicate, hatched out a scheme of his own to get away with his record unimpaired. Early one morning he presented himself at the office in full mourning. The crape on his arm was very conspicuous and he had not even forgotten to put some on his hat. He told a most pitiful story of how his father had just died and that he was the only support left for two minor children of tender age. His story seemed plausible enough but the action was a little overdone. He was permitted to leave at once but was told that his transfer would be mailed to him as soon as his story could be verified. A letter was at once dispatched to the principal teacher of his town asking for the necessary information. Two days later Cirilo was back. He had not gone to his home town but had spent the time in the near-by town of San José trying to figure his way out of a serious dilemma. His story was a pure fabrication and he was caught. He decided that the best thing he could do was to confess his fault and beg for mercy. Later a letter was received from the



Winnowing rice.

principal which cleared up the matter completely. The boy was not readmitted.

It may be inquired as to why efforts were not made to detain these boys and save them if possible. In answer it should be stated that this is in no sense an asylum for weaklings. The accommodations are too limited even to house a better class of boys. It is generally found to be the part of wisdom to let a boy go as soon as he proves himself unfit in order that his place may be taken by others of better stamina. Since June more than a score of boys have been let out because of inability to stand up to the work assigned them.

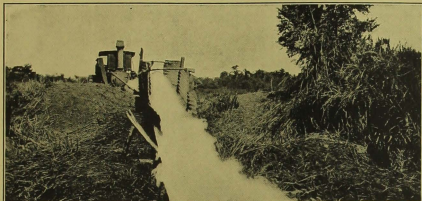
A boy, upon being admitted, is immediately brought face to face with the stern laws of political economy. Plenty of good food is prepared daily, but he must earn his right to share it. This is a community where vagrancy is a crime, and where every able-bodied member must do his part. Advantages and comforts multiply as time passes, and as more improvements are made. No student at present needs suffer for the want of anything. But each is provided with definite tasks and from these there is no escape.

Discipline of this sort is a boy's greatest opportunity. We aim to give each a chance to work with both head and hands. He gets plenty of opposition, something to endure, something to strive for, and something to prize. We do this in the hope that he will come out broader in mind, harder of muscle, and better equipped to face the duties and responsibilities of later years.

#### AT WORK AND AT PLAY.

The casual visitor, no doubt, will have his attention first called to the noises which emanate from the shop and machinery building. Here a 22-horsepower traction engine tugs away at the various machines with which our little community is provided. To-day a detail of boys may be busy hulling rice for use in the student mess. At the same time another detail is planing boards at the planer, to be used for making furniture or a floor, and a third set may be doing the bench work necessary to make school and office equipment. Near by is the blacksmith shop, where the flaming forge and ringing anvil proclaim the story of how red-hot iron is shaped into all sorts of articles useful to man. Here all the farm repair work is done; plows are sharpened, saws set and filed, parts welded together or made new, bolts made and threaded, and plumbing fixtures attended to.

On days when the sawmill is used, the other machines are silent, as it takes all the available power to saw out lumber from the hard native timber. At other times the traction engine is used out on the farm to draw in logs or to pull the large disk



A 10-inch centrifugal pump in action.

plow. It also furnishes power for the centrifugal pump which is used in the dry season to irrigate the field and garden.

The machinery department is in charge of an American engineer. His duties are entirely supervisory, the work itself being done by students. A permanent detail of six boys, three in the morning and three in the afternoon, do all work connected with the traction engine. These boys are taking a practical course in steam engineering, with a view to supplying the

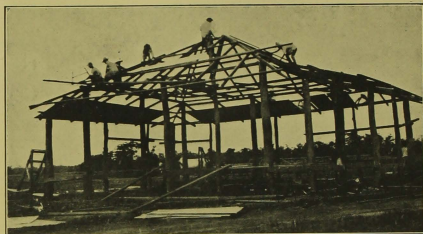


A practical lesson in field irrigation.

demand for men qualified to do this class of work. The rest of the boys on these details are changed every two days, in order to give experience to a larger number. The ironworking is in charge of a capable Filipino blacksmith who occupies the position

of craftsman. The boys who serve under him are apprentices. We now come to the kitchen and bakery, where the food necessary to satisfy 180 boys is prepared. This department is also supervised by an American teacher, but the work itself is in the hands of the boys. Two mess corporals, one in the morning and one in the afternoon, have the responsibility of preparing and serving meals, and a competent baker, also a student, bakes the bread and does the pastry cooking. Our bakery is acquiring considerable local fame. We furnish bread to all the Americans in the vicinity.

It takes eight boys besides the corporals and baker to properly prepare and serve the meals; four on the morning detail and four in the afternoon. Boys on this detail have acquired the



Schoolboys framing a bungalow.

local name of "cook's police." From the nature of the service, this detail is heartily disliked by most of the students.

The farm operations are under the direct supervision of the superintendent and a Filipino farm assistant. The duties of this department are so numerous that it would only tire the reader to enumerate them all. They include all the work necessary to plant, cultivate, and harvest field, garden, and orchard crops; clear land; build dikes, dams, and ditches; build fences; and care for work animals, hogs, and poultry; in addition, to look after the construction and repair of buildings, roads, bridges, and culverts, and to assume the responsibility for the maintenance of sanitary conditions on the premises. In all this a general supervision only is maintained by American and Filipino teachers. The direct supervision is in the hands of

"class captains" (students in charge of details and entrusted with the responsibility of getting definite results with them). The method of securing these results will presently be seen.

In this community a school is maintained as an important and necessary feature only. While a certain amount of academic



Schoolboys plowing.

training is essential, the classes are so conducted as to give little of the dry atmosphere of the ordinary schoolroom. Oftentimes whole classes recite in the field or in the garden and nursery, as these places offer better opportunities for imparting lessons of real value. The data used in the classroom are largely taken



Studying the effects of drought on growing corn.

from the problems and experiences which come up in the daily life of the students.

A systematic correlation of farm life with classroom subjects is believed to afford the best means for the proper development of boys who are getting agricultural training. Questions of vital

importance may be taken up, studied, and discussed in the classroom, a thing which is impossible with work details out on the farm. Similarly, the knowledge and experience gained by the actual doing of the work is of the highest importance, as without it much of the classroom instruction would prove meaningless. In this way the one field of effort supplements the other in a manner to serve the best purposes of both.

While a good school is maintained, we cannot lay claim to any degree of superiority on academic grounds. Many schools throughout the Philippines give courses of instruction which include a wider range of subjects. None, however, excel us in the opportunities given to share the duties and responsibilities of actual life and to train for work which is common to every community.



Studying forest seedlings in the nursery.

A four-year course is offered. The first three comprises the intermediate course in farming as prescribed by the Director of Education; the fourth year to date has followed very closely the work outlined for the first year of high school. This is being replaced by courses which aim to prepare for definite service. The demand for men trained to do things, even though such training is elementary, is so great that a school of this kind is not justified in merely preparing pupils to continue their studies in higher institutions. As soon as possible, definite courses will be prescribed for farm assistants, agricultural and garden teachers, practical farmers, and steam engineers, special emphasis being placed on the physical problems connected with each vocation.

It must not be supposed that life at the Central Luzon Agri-

cultural School is all work. I believe we are safe in claiming the best athletic field in the province and this comes in for its share of daily attention. We have facilities for baseball, basket ball, volley ball, and tennis, together with a quarter-mile track. All the athletic equipment required for a provincial field meet has been provided.

Besides athletics we have literary societies which meet every week, field and forest excursions are organized, and off and on a social dance takes place at the mess hall. On these occasions the boys play hosts and invite their friends from the neighboring towns, not forgetting the girls. We are making efforts now to organize and equip a school band, which will add still more to the life of the school.

#### METHOD OF MANAGEMENT.

Promptly at 6.30 every morning the bugler sounds the call for assembly. The entire student body is then lined up in front of the administration building for roll call, and to receive the instructions, and hear the announcements for the day. The observer will naturally be interested to know what these boys will do and how each will receive due credit for what he accomplishes.

This is a semimilitary organization. From reveille at 5.30 a. m. to taps at 10.15 p. m. each member is accounted for either on some work detail, in the classroom, or in one of the dormitories. Half of the pupils attend school while the other half works and, consequently, it is necessary to have a double organization in order that the manual work may continue throughout the whole day.

Ten captains have direct charge of the work details each day. Five of these work in the morning and the other five in the afternoon. These captains serve for a period of two consecutive weeks, when they are replaced with others from the same grade. This is done so as to give every boy in the grade a chance to demonstrate what he can do and to give practical training to a number of boys in the art of handling men. Only boys from the seventh and eighth grades are chosen to fill these places. The lower grades need more experience as workmen before they can properly be placed in charge of details.

The boys, upon being assigned, report to their captains and together they proceed to the tool house where the tool keeper, with the aid of the captains, checks and issues the necessary tools and implements for each detail. The tool keeper has the



rank of captain and serves also for a period of two weeks. To care and account for property is such good, practical training that the opportunity is given to as large a number as possible.

The reader's attention is called to the page from the class captain's report book. This is the manner in which he makes the daily entries of the boys who work on his detail, indicating the hours they work, how much they do, and the quality of work performed. Upon being approved by the teacher in charge, the rating which he gives becomes a permanent record and is transferred to the assignment book as the boy's industrial rating. The class captain's report is a very valuable record. Not only does it provide information regarding the status of work, but it furnishes all the data for ascertaining the cost of labor neces-

NAME OF DETAIL, <i>Boatbuilding</i>		No. of DETAIL, <i>22</i>			
DATE, <i>April 22</i> 1905.		Domingo, Masoco CAPTAIN IN CHARGE			
NAME	GRADE	No. of HOURS	QUALITY OF WORK	AMOUNT ACCOMPLISHED	COST
<i>General Quintana</i>	VI	4	E	1.20 Cms.	24
<i>Captain Lopez</i>	VII	4	G	1.10 Cms.	24
<i>Agustin Sanchez</i>	VI	4	G	1.10 Cms.	24
<i>Alvaro Bonifacio</i>	VI	4	E	1.20 Cms.	24
<i>Esteban Valverde</i>	VII	4	G	1.05 Cms.	24
<i>Francisco Bonifacio</i>	VI	4	G	1.10 Cms.	24
<i>Manuel Rodriguez</i>	VII	4	G	1.00 Cms.	24
<i>Francisco Bonifacio</i>	VII	4	F	.95 Cms.	24
<i>Enrico Carrero</i>	VII	4	F	.95 Cms.	24
<i>Juan Cruz</i>	VII	4	D	.90 Cms.	24
TOTAL		40		10.55 Cms.	240

A page from the class captain's book.

sary to perform a given task. By supplementing this information with prices of materials, one gets valuable data on all sorts of practical problems for use in the classroom.

To devise a system which gives daily credit to each boy for exactly what he does under circumstances where there are scores of tasks to be performed is not an easy matter without making the record so cumbersome as to require too much clerical work. After several experiments the writer hit upon the scheme of giving a permanent number to every activity and then to make all assignments by number. This solved the problem admirably. Here was a system flexible enough to cover all the manifold phases of an agricultural community and yet afford a reliable record with a minimum expenditure of time.

A brief study of the page from the assignment book and the

list of work details will make this clear. The numbers signify definite activities to which the student has been assigned during the month. Thus, 12 is the permanent number for construction and repair; 1 stands for plowing, 8 for planting, and 30 for harvesting. In the same way other activities are designated by number. Every time a new one comes up it is listed and given a permanent number which, in turn, is used in assigning boys to work. The assignments are made beforehand and the numbers given out at roll call. After using the numbers a short time the boys become so familiar with them that they know at once what to do as soon as their position of real responsibility.

The class captain holds a number of real responsibility.

GRADE XI

MONTH OF November, 1913.

No.	NAME	MONTH OF												Average			
		1	2	3	4	5	6	7	8	9	10	11	12				
1	Abalos, Francisco	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	79
2	Abalos, Victor	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	79
3	Abalos, Tomas	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	80
4	Abalos, Pedro	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	71
5	Abalos, Benigno	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	84
6	Abalos, Esteban	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	78
7	Abalos, Isidoro	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	76
8	Abalos, Felipe	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	76
9	Abalos, Antonio	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	77
10	Abalos, Pedro	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	80
11	Abalos, Leon	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	78
12	Abalos, Mariano	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	80
13	Abalos, Agustin	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	79
14	Abalos, Vicente	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	82
15	Abalos, Ricardo	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	79
16	Abalos, Manuel	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	80
17	Abalos, Angel	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	79

A page from the assignment book.

There is nothing of the "make believe" in the fields that are plowed, in the crops that are grown, or in the buildings constructed. Given the men, materials, tools, and implements these captains are expected to get results, and are rated accordingly. A table is reserved for them in the administration building where they keep their records. They are at all times in close touch with the superintendent and instructors.

Four police officers, one for each grade, are responsible for the order maintained on the premises. They make arrests whenever necessary, help dress the lines at roll call, report on absences or delinquencies and, in a score of different ways, assist in the management. Minor offenses are tried in our own court where a boy judge dispenses justice.

## List of work details.

Name of detail.	Detail No.	Name of detail.	Detail No.
Plowing .....	1	Rice harrow (suyod) .....	17
Hoeing .....	2	Irrigation .....	18
Cultivating .....	3	Garden and nursery .....	19
Wood wagon .....	4	Road building .....	20
Water wagon .....	5	Athletic field .....	21
Traction engine .....	6	Hauling construction materials .....	22
Lawn making .....	7	Ditch digging .....	23
Planting .....	8	Clearing .....	24
Hog yard .....	9	"Cook's police" .....	25
Rice hulling .....	10	Grading and leveling .....	26
Sawmill or shop .....	11	Sanitation and drainage .....	27
Construction and repair .....	12	Fencing .....	28
Forest .....	13	Blacksmith shop .....	29
Property .....	14	Harvesting .....	30
Dam construction .....	15	Miscellaneous .....	31
Well digging .....	16		

Sanitation is in charge of a capable sanitary inspector, also one of the boys. He keeps a close watch on sanitary conditions in the dormitories and the mess hall, builds sanitary closets, drains or fills in low places, in short, does everything to insure conditions which will contribute to the general health of the community. To accomplish this work, he is assigned a detail of boys over which he has charge as captain.

There are several other features which might be mentioned, but enough has been said to show how much the students themselves share in the management and responsibilities of the institution. Our best product is a human product; boys with more ability, more initiative, and more confidence; boys who are able to stand on their own feet, and who are qualified to direct some of the human energy which is everywhere going to waste. There will be many disappointments. Our community is not exempt from the failures which one meets in every community. We have our prosperous citizens and our spendthrifts; our industrious boys and our time servers. For every condition, good or bad, in the ordinary community, we have a counterpart. But this only goes to prove that our problems here are real problems, and in solving them we dare hope that a boy's success at the Central Luzon Agricultural School will count for his larger success as a citizen after he leaves school.

## PHYSICAL IMPROVEMENTS.

The plans which have been adopted call for the construction of seven large buildings in one group, as follows: Mess hall, academic building, administration building, and four dormitories. Of this group only the mess hall has so far been completed. Besides this center, there are other buildings needed for the various industrial activities. These are nearly all con-

structed or are in the process of construction. They include the shop and machinery building, tool house, blacksmith shop, poultry yard, cattle sheds, implement shed, and hog yard.

This plan also includes the principal features pertaining to the development of the grounds. Roads, paths, the athletic field, campus, and plantings have all received attention. Many of these features have been completed and some are now being done. All of this work offers excellent practical training in the improvement of school and home grounds.

There are a large number of provisional buildings continually going up, of the kind seen in every native barrio. These serve as temporary dormitories and outbuildings of all kinds. They are valuable to the extent that they are typical of the kind used all over the Islands and because they furnish practically the only type of construction within the means of the average farmer. For this reason it would not be advisable to entirely dispense with this class of construction even though it does detract from the general appearance of the place.

Another important feature is the establishment and maintenance of a model farm of 16 hectares, as an object lesson to students who will most probably have to deal with the problems connected with the small homestead instead of the large hacienda. It is the purpose to include in this feature the necessary buildings, fences, field and garden activities, and as much of animal husbandry as can profitably be maintained on a farm of such small extent.

The building plan adopted for the school provides living accommodations for approximately 500 students. Every feature is designed to meet a definite need. The physical improvements called for in this plan will adequately provide us with a plant which will meet every requirement for years to come.

#### OPPORTUNITIES OPEN TO GRADUATES.

The world will never be able to dispense with men who can do things. A boy who has had the opportunity to develop initiative by putting his thoughts into action will outstrip his companions in almost every race which requires the use of brain and muscle. The knowledge and confidence that come to those who have actually done the thing and who know that they can do it again place a man at a tremendous advantage.

Most men get some training along this line in the school of experience. But their efforts are misdirected and the training is costly. It is the aim and purpose of this institution to supply in a measure the growing demand for men who can get results,

to give to each student every experience which he would naturally get were he thrown upon his own resources, and to direct his energies in such channels as will tend to make of him an economic leader.

The test, of course, is the human product. It is rather early in the history of the institution to judge of results obtained, as there has been only one graduating class since the organization of the school. Of the 16 in this class, 4 have continued their course in agriculture at the Agricultural College in Los Baños; 1 was retained as teacher in this school; 5 others have positions as industrial teachers; 2 are farming their own land; 1 is assistant agricultural inspector in the Bureau of Agriculture; 1 is foreman on a local pineapple plantation; 1 is taking a course in the School of Arts and Trades; and 1 is doing clerical work. As far as can be learned all of these boys are doing very creditable work along lines in which they have received training, with the possible exception of the last.



Improved papaya introduced by the school.

It is not to be expected that all of the boys who enter this institution will become industrial leaders. Many are constitutionally unfit to be anything but followers. However, the opportunity to develop is given them in the largest measure and it is confidently hoped that the majority will come out better qual-

fied in every way to meet the responsibilities of the progressive citizen.

A boy who has prepared himself for a useful life in the manner prescribed at the Central Luzon Agricultural School need have no fear that his services will not be required. As the latent resources of these Islands are made to serve mankind in an increasing number of ways, and, as industry gains a firmer foothold, this country will reap the blessings of peace and prosperity in a degree heretofore unknown. It is impossible for an institution of this limited size to even begin to supply the demand for industrial leaders called for by such a comprehensive program. But working hand in hand with others which give industrial training, it will send out a corps of young men who will hasten the day of economic independence.