

It is sometimes said that considerable time is wasted by primary pupils during their gardening period. In a few schools this is true, and the trouble can usually be traced to unsatisfactory normal institute training. During the first part of the year when the pupils are preparing the soil and building or repairing the garden fences, they are usually busy throughout the period; but after the plants have begun to grow and there is less need of labor, considerable time is lost. This can be remedied by giving the teachers at the institutes more experimental work; also weather observation and plant and insect surveys.

The experiments should be conducted in the rest house or in the seed-bed house. This work may consist of tests for protein and acidity of the soil, seed selection, seed testing, and simple soil analysis. If a teacher has a series of such experiments with which to vary the garden work, he will be able to sustain the interest of the pupils, and to keep them busy at all times.

For weather observation only a thermometer and a barometer need be purchased. A rain gauge and a weather vane can be made by pupils. The former need not be standard and can easily be put together from a piece of bamboo about 10 centimeters in diameter, another piece about 2.5 centimeters in diameter, and a tin funnel. A weather chart can be drawn, and four or five pupils should be assigned to make the entries.

Plant and insect surveys in the vicinity of the school garden would add to the attractiveness of the work. A summary showing the varieties of weeds found by different groups of pupils, and the total number found by all of the groups, would be helpful and interesting. The same plan could be followed with reference to insects. It would not be necessary to use any except native names. A list of the birds found near the garden might be made, and their value as allies of man in the extermination of insects, should be made clear.

The marked improvement in academic classes during the past three years is largely attributable to the benefit gained by teachers from observing practice classes in assemblies and institutes. The application of these methods to gardening and school-ground improvement at normal institutes would bring about equally good results.

BOBBIN LACE.

By Miss VICTORIA CIUDADANO, Assistant Division Industrial Supervisor, Batangas.

Division normal institutes are in session for only four weeks and as this does not allow more than twenty recitations in lace

making, it is almost impossible to make the class in this subject beneficial and productive unless the instructor and the teachers enrolled cooperate most heartily. Qualities needed to make the instructor's work successful are a strong personality, great executive ability, a pleasant disposition and a readiness to help.

Since there are forty-eight lace patterns, excluding those for the eleven exercises in basic stitches shown on lace sheet No. 5511, it would not seem wise to attempt teaching them all. To plan her work properly, the instructor should find out which patterns the Bureau considers to be in greatest commercial demand, and for what articles orders may be placed in the division. Giving preference to these, she should pick out at least eight advanced patterns if she is to teach advanced classes, or she should select the same number of elementary patterns, in addition to the eleven exercises on basic stitches if she is to conduct elementary classes. Then all her efforts should be directed toward making the work conform with the Bureau of Education models and patterns studied at the vacation assembly. All models should be made by the instructor in order that she may acquire confidence in her own ability to carry out any of the patterns.

Those enrolling in division normal institutes should come determined to make the most of the opportunity offered, in order to lay a strong foundation for their whole year's work. After having received the initial instructions and having witnessed the demonstration on the first day, in order to economize time, the teachers should do the following work outside of school hours; prepare bobbins, perforate patterns and work out such parts of them as may be possible without help. If they weave each pattern with the minimum of aid from the instructor, they will be the better able to teach the subject to their pupils.

All materials needed to make the required models should be bought beforehand and kept ready for distribution at the opening of the institute. The threads should be of the counts specified on the lace sheet.

The equipment should be supplied partly by the school and partly by the teachers enrolled. The school or the instructor should furnish a folder of lace models, outlines, complete sets of all the patterns to be introduced already mounted on cardboard, folders to mount samples on, wrapping paper, and some extra lace sheets. The instructor should be sure that the models to be copied by the class are absolutely correct, and that they have a uniform length of about 10 centimeters and contain at least one complete unit of the design. Every model should bear information as to the proper count, the number of bobbins, the

names of the lace stitches, and the design number and letter, if any. Each teacher should bring with her a pillow of the size, shape and color specified, 50 pairs of standard bobbins, a fine perforator, a pair of scissors, a metric measure, a towel, and a notebook.

There is nothing that delays the work in lace-making classes so much as teachers reporting with incomplete equipment. To avoid this trouble the supervisors should check the outfits of the teachers recommended, to see that they bring with them the articles specified in the division normal institute circular.

The space occupied by the class ought to be large enough so



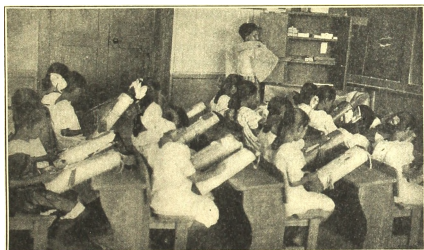
How a well-organized and well-equipped bobbin-lace class should appear at the opening of the normal institute.

that the instructor can permit the workers to change their places in order to secure better light or more comfortable positions. The room should be well ventilated and the light neither dim nor very strong. Curtains ought to be placed at the windows to regulate the light and to give a homelike appearance. There ought to be a washstand, washbasins, soap, a pitcher of water, racks or nails for hanging up pillows, working tables, and chairs or comfortable desks.

The expenses for lace materials and for part of the equipment, should be paid from the normal institute fund whether appropriated by the provincial board or accumulated from matriculation fees.

The methods of teaching lace making in the normal institute

should be different from those used in ordinary schools. The enrollment in a class should be not more than eight, the instruction being individual so that each teacher may receive the utmost benefit. In ordinary school work, after obtaining a thorough knowledge of the basic stitches, a girl can at once be set to work on a pattern which she is to make throughout the year; while at the normal institute, the instructor has to start every teacher on at least eight different patterns during the four weeks. In order to accomplish this she must lose no time in giving necessary aid and correcting errors. To facilitate the work, the instructor should require teachers to take up the patterns according to their sequence in the plan for the lessons,



A model lace-making class. All busy; uniform equipment; correct methods.

and in issuing them she ought to call attention to the parts on which mistakes are most likely to be made.

That time may be spent to the best advantage, the first ten minutes of the recitation period should be devoted to an inspection of whatever work may have been done since the last recitation period and to the distribution of materials. The next five minutes should be occupied with a discussion of the names of lace stitches, and matters connected with materials and equipment. The rest of the time ought to be spent in actual work. During the last five minutes the instructor, without disturbing the whole class, should inspect each teacher's work so as to determine whether the weaving will have to be continued or whether the thread can be cut and materials for the next pattern prepared. In bobbin lace classes it is very necessary to give

definite assignments for each day's lessons, otherwise not only time but also materials may be wasted.

The instructor should require every teacher to continue on one design until she can weave it independently, and until she has completed 10 centimeters correctly. Defective models should be destroyed. It is worse for a teacher to carry home wrong models and introduce them into a school than it is for her to have none at all.

Practice classes are as necessary in presenting this work at normal institutes as they are in academic subjects. By means of these, the best methods in the teaching of bobbin lace may be demonstrated. Economy of material, time and energy, and the securing of excellent workmanship should be the principal aims in the conduct of a model class. The following points should be emphasized: The orderly marching of pupils to and from their seats in getting their materials or pillows; arrangement of pupils in correct positions with relation to the light; training girls to weave by using only the forearm and wrist movements so as to avoid useless motion; the best way to keep the class quiet and busy during the industrial period; and proper methods of keeping work firm, white and clean. The teachers observing should be required to hand in written criticisms, and afterwards they should discuss the management of the class.

BASKETRY.

By BENJAMIN F. BENNINGTON, Division Industrial Supervisor, Cebu.

For the best results, it is frequently advisable to have at least two instructors in charge of each class in basketry; one should keep the attendance and other records, while the other should be free to devote his entire time to individuals of the class. Great care should be exercised in selecting the instructors. Many teachers are able to make baskets themselves, but fail in showing others how to do the work. In general, the teacher who is able to turn out from his school a large number of first-class baskets will make a success of basketry at the normal institute. Attendance at the vacation assembly should be required of all who expect to act as instructors at institutes.

The number in each class should not exceed twenty. What teachers are to be enrolled and the kind of basket each of them is to make, should be determined in advance by the industrial supervisor or the division superintendent.

It is generally considered more satisfactory for the normal institute to furnish all raw materials and for teachers to prepare