grass that had been cut. Each tried to make a little better showing than his companion. Teachers might be seen moving about from one end of the grounds to the other, commenting, encouraging, instructing. Walks were constructed, capped with gravel, and bordered with violet hedges; the outhouses were screened with morning-glory vines; lawns were planted and trimmed; and flower beds which were raised and surrounded with a wire fence were planted with flowers. Thus a site which at the beginning of the year was little more attractive than an uncultivated rice field, and whose improvement was thought by some to be impossible, was turned into the beauty spot of the town.

The barrio schools tried to duplicate the work of the central school and were successful in so far as the means at their disposal allowed. Barrio as well as central school pupils caught the contagion of unselfish service to such an extent that they desired to put into practice at home the ideas of cleanliness and beauty, which they had acquired at school. When school closed for the day, the pupils were less frequently seen in the street playing "bantil" or "tubiganay" in clouds of dust or in the mud. They were at home trying to improve their surroundings. It is hoped that it will not be long before the desire for the better keeping of the home and its premises will have been carried by the pupils into every household.

OUTLINING WORK FOR INDUSTRIAL CLASSES.

By E. FORD HICKMAN, Division Industrial Supervisor, Ilocos Sur-

The industrial work of the schools is divided into two general classes—direct betterment and commercial. The latter may be divided into two classes—export and local.

The work in the direct betterment courses is outlined by the course of study. For the girls, plain sewing and cooking are prescribed; for the boys, hand weaving, gardening, and shop work. Where and when these courses are to be taught is definitely stated in the course of study, so very little attention will be paid to them here. The question as to whether hard or soft strip hand weaving is to be taught should be determined by the local supply of raw material; or, if materials for the two courses are equally convenient, it should be determined by the kind of commercial work to be done in advanced classes.

Immediately following the course in hard strip weaving, a course in native basketry should be given. This should consist

of types of baskets used locally; such as rice baskets, winnowing baskets, and market baskets. Sizes and shapes that are in local demand should be adhered to, and the finished product offered at local prices. In many cases the style of basket varies in different localities of the same division, so it is a good plan to leave to the supervising teacher the selection of the kinds of baskets to be made in a district. Since local demand, as a rule, does not require excellent workmanship, baskets made by beginners can be sold for more than the cost of the material. Good workmanship must be insisted upon, however, even though local demand does not require it, otherwise the educational value of the work is lost. The making of these baskets gives the necessary training in the preparation of materials-bamboo, nito, and rattan—used in the advanced basketry classes. It is valuable, also, because the selling of the baskets is an incentive to commercial work.

The course in the hand weaving of soft strips may be followed by the making of book satchels, cushions, and mats, which meet a local demand. In the third, fourth, and intermediate grades, the pupils of the plain-sewing classes, besides making clothes for themselves, may make garments which can be sold locally. Some line of work which will supply articles to meet a local demand should be prescribed for every school.

Quick financial returns, even though small, from any of these courses stimulate interest not only among the pupils, but also among the parents, and make the benefits of the industrial classes the more evident to the community at large.

Prescribing work for export trade is a more difficult matter. There are many points to be considered for every school, among which the following are important: a supply of raw material, a market for the finished product, and the ability of the pupils and teachers.

The supply of material and a possible market must be considered together in planning work. There may be an excellent market for a certain line of work; but if the supply of raw material is inadequate, or if it is so expensive that the school cannot produce the articles for prices at which other schools produce them, then that line of work should not be prescribed. An adequate supply for the year should be in sight when work is planned. In places where a large supply of a certain raw material is at hand, a line of work should be given which will use this material and for which a ready market can be found. Technical Bulletin No. 26 (revised) will aid in determining the lines of work which are the most salable.

The ability of the pupils depends upon the kind of preparatory work they have had. In this connection the elementary work given and the courses previously taught in the school should be considered, and work prescribed which is based on them. Teachers should be assigned to schools where the work they are best able to teach is prescribed. It is a mistake to change the kind of work in a school to conform to the kind of work the teacher assigned is best able to teach.

The question of what it is best to make in industrial classes is before the industrial supervisor at all times, but is given most consideration during the closing months of school, when definite plans are being made for the following year. He then knows what work has given the best returns during the year; the work of individual schools is fresh in mind; so plans for the following year can be made to advantage. Where changes are contemplated by the division office, the supervising teacher should be conferred with; for he is on the ground and, as a rule, should know conditions better than either the superintendent or the industrial supervisor. A written outline, definitely prescribing the work to be taught in each school of the division, should be prepared at this time and issued to the field. The assignment of teachers to industrial classes in the normal institute should be based on this, and every teacher enrolled given a very clear idea of just what he is to teach during the following year.

The number of courses given in a division should be kept as low as possible. This greatly facilitates the work of supervising classes, of furnishing material, and of marketing the finished products.

In making definite plans for the work in a school, the following points should be considered:

The number of grades in a school and the age and size of the pupils.

The number of teachers provided for the school.

The materials available.

The probable markets for the finished products.

The courses previously taught.

To secure the best results, a teacher should handle one line of work only; but in schools having but one teacher this cannot be done, so the teacher has to handle at least plain sewing, hand weaving, and native basketry, and, usually, gardening. While this is not an ideal arrangement, yet conditions make it necessary in many places and it can be done with good results.

As soon as the work to be done the following year is determined, an article combining all the best points of a course should be secured for use as a model in the normal institute. No line of work should ever be considered perfect; a lookout should be kept at all times for improvements in methods and designs.

Changes in industrial courses should not be made until the matter has been thoroughly considered from every point of view. Care should be taken not to adopt a fad for school work; for just when the workers become proficient in production, the fad may go out of style and the producers, finding no market for their work, will have to take up and learn something new.

QUARTERLY REPORT OF INDUSTRIAL WORK.

By O. C. HANSEN, Chief, Accounting Division.

The quarterly report of industrial work, B. of E. Form No. 153 as revised December, 1915, was designed with a view to providing the maximum of information with a minimum of work. At various times the necessity for providing uniform headings for grouping of materials and fabricated articles has been emphasized in order to simplify the form of the report and to make possible a satisfactory compilation of reports for provinces and for the Islands.

Materials purchased and expended should be summarized, in so far as possible, to show materials under the following main classes; articles completed should be listed as stated below:

MATERIALS.

Cloth:

Linen-

- 1. Fine handkerchief.
- 2. Medium handkerchief.
- 3. Cambric.
- 4. Fine household.
- 5. Sheeting.
- 6. Toweling.

Cotton—

- 7. Batiste.
- 8. Nainsook.
- 9. For plain sewing.
- 10. Other.

Threads and yarns:

- 11. Linen lace.
- 12. Sewing, glazed.
- 13. Sewing, unglazed.
- 14. Embroidery (white) skeins.
- 15. Alexander (balls).
- 16. Crochet.

- 17. Colored.
- 18. Other.

General:

- 19. Abaca.
- 20. Buntal.
- 21. Other fibers.
- 22. Rattan (whole).
- 23. Rattan peel.
- 24. Bamboo.
- 25. Air roots, vines, and rattan core.
- 26. Midribs.
- 27. Petioles and banban.
- 28. Leaf strips.
- 29. Coconut husks.
- 30. Vetiver.
- 31. Sedges.
- 32. Miscellaneous.
- 33. Lumber.
- 34. Other woodworking supplies.