ABACA.[1]

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THE CORD INDUSTRY.

In connection with the development of industrial work in the public schools there has arisen a demand for twisted abaca cord which promises to open up a new field of profitable labor to the women and children of towns and barrios in the abaca producing

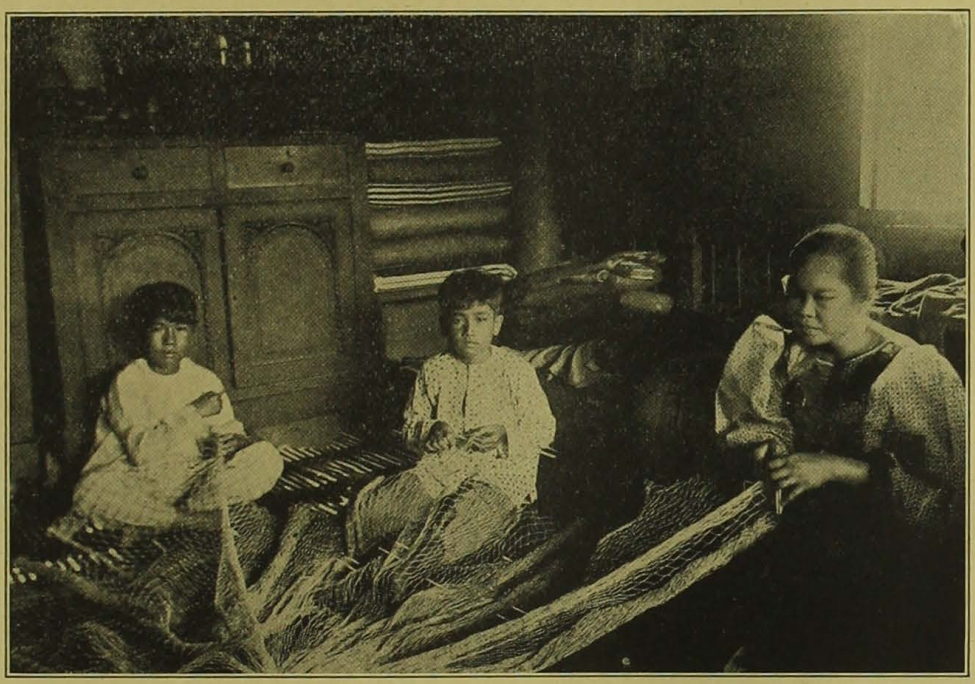

Plate I. Weaving a fishnet, Cavite.

regions. At present this new occupation is centered in the fishing villages of Cavite Province. It is interesting to note that the topography of the country has had much to do with the development of this industry. Cavite Province has a rim of low hills rising rather abruptly from the shore of the China sea. On the Manila side of these hills there is a gradual slope toward the bay shore, intersected by numerous rivers and esteros on the lower end and well suited for fishing operations. The plain at its up-

[1] This is the second paper on the subject of Abaca, which was begun in the August Craftsman. The series will continue through Volume I.

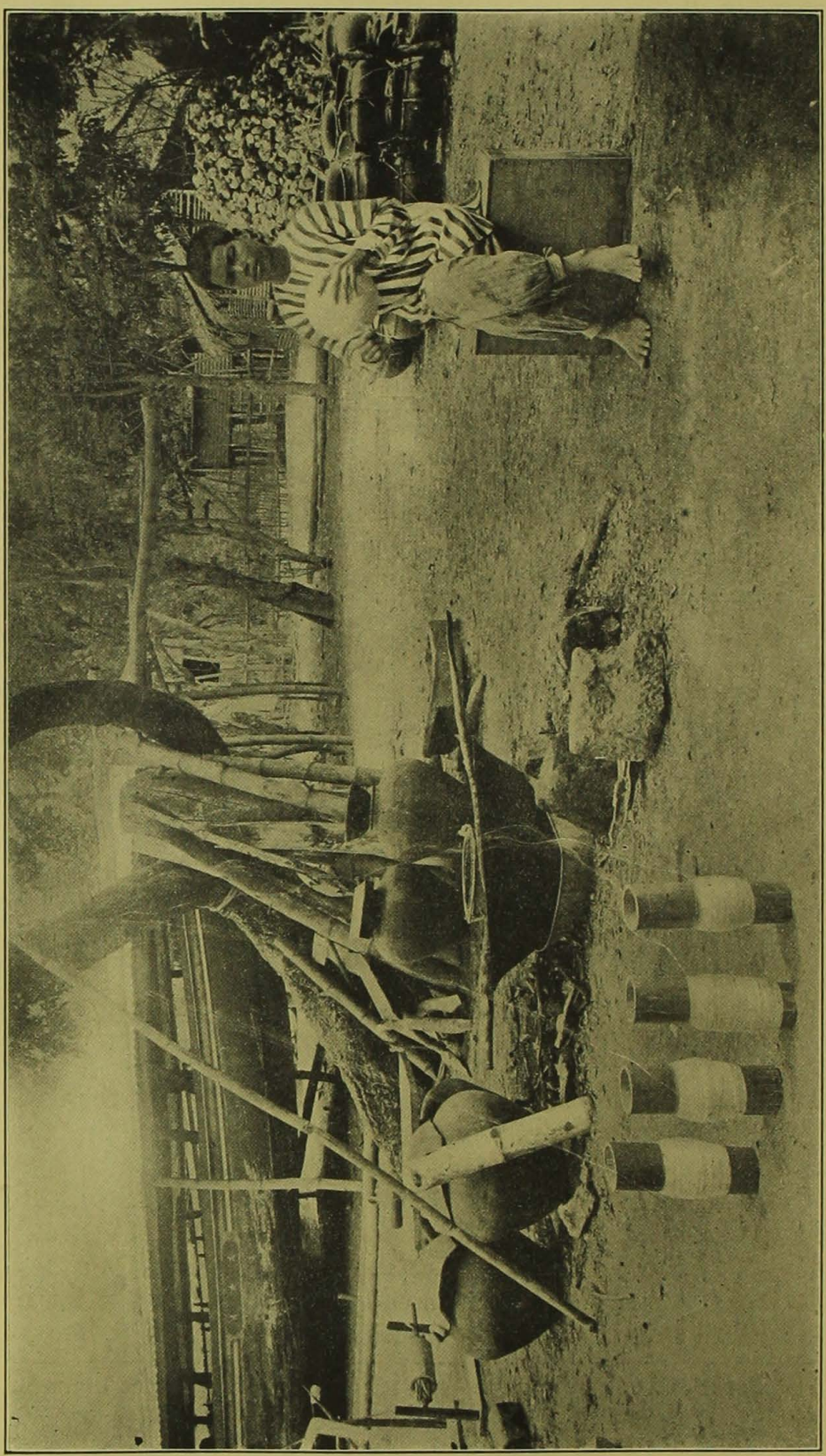

Plate II. Winding four threads into a ball.

per altitude produces some of the finest abaca fibers in the islands. This is worked up by the people of the highlands and lowlands. They make abaca cloth sufficient to supply local demands and a large export. They also send away large quantities of knotted abaca. In addition to these, the lowlanders make fish lines and fish nets. The twisted cord necessary for the nets is the basis of the new abaca cord used in industrial work.

The abaca fiber as it leaves the hands of the stripper is from 9 to 12 feet long and is ready for grading, baling and shipment to the world's market. To make the cord, it is first knotted and made up into labay or skeins.[2] In many barrios this is an occupation in itself and furnishes employment for thousands of women and children who secure a scanty income by a few hours of daily labor. This industry in the lowlands of Cavite apparently centers in Naic, which is not far from the abaca fiber market of Indang.

The manufacture of the abaca cord is a further use of the tied abaca. The laborers are the wife and those other members of the household who are too young or too old to engage in more trying labors of fishing or farming. The raw material is the knotted abaca which is usually purchased in the market or from friends. The work shop is the home and the surrounding yard. Working under the shelter of widespreading mango or rain trees, surrounded by discarded fishing boats and nets, kettles of mangrove dye, and frames for drying the large seines, while dogs, cats, chickens and goats leisurely wander in and out of view, these workers unconsciously furnish a picture of primitive industry whose realism is enhanced by the rude implements of the craft.

To produce cord for nets the fibers are tied four at a time. For industrial cord the single fibers are tied together. The skein of knotted abaca is placed on a revolving wooden framework or reel and wound by hand on a short joint of bamboo perhaps 3 inches in diameter. With cotton cord such as is used for coarse fishlines, this may be accomplished by a foot pedal revolving a drum, supporting the bamboo. The foot pedal machine has not been satisfactorily adjusted to the abaca fiber, as its motion is jerky and breaks frequently occur which cause a loss of time and a multiplication of the number of knots. When four of these bamboo bobbins have been filled, the worker places them in a row on the ground and passes an end of the thread from each up over a wire or smooth stick which serves to create a light tension and to prevent entanglement of the threads. These four threads

[2] For a description of the abaca knotting industry, see Vol. I, No. 2.

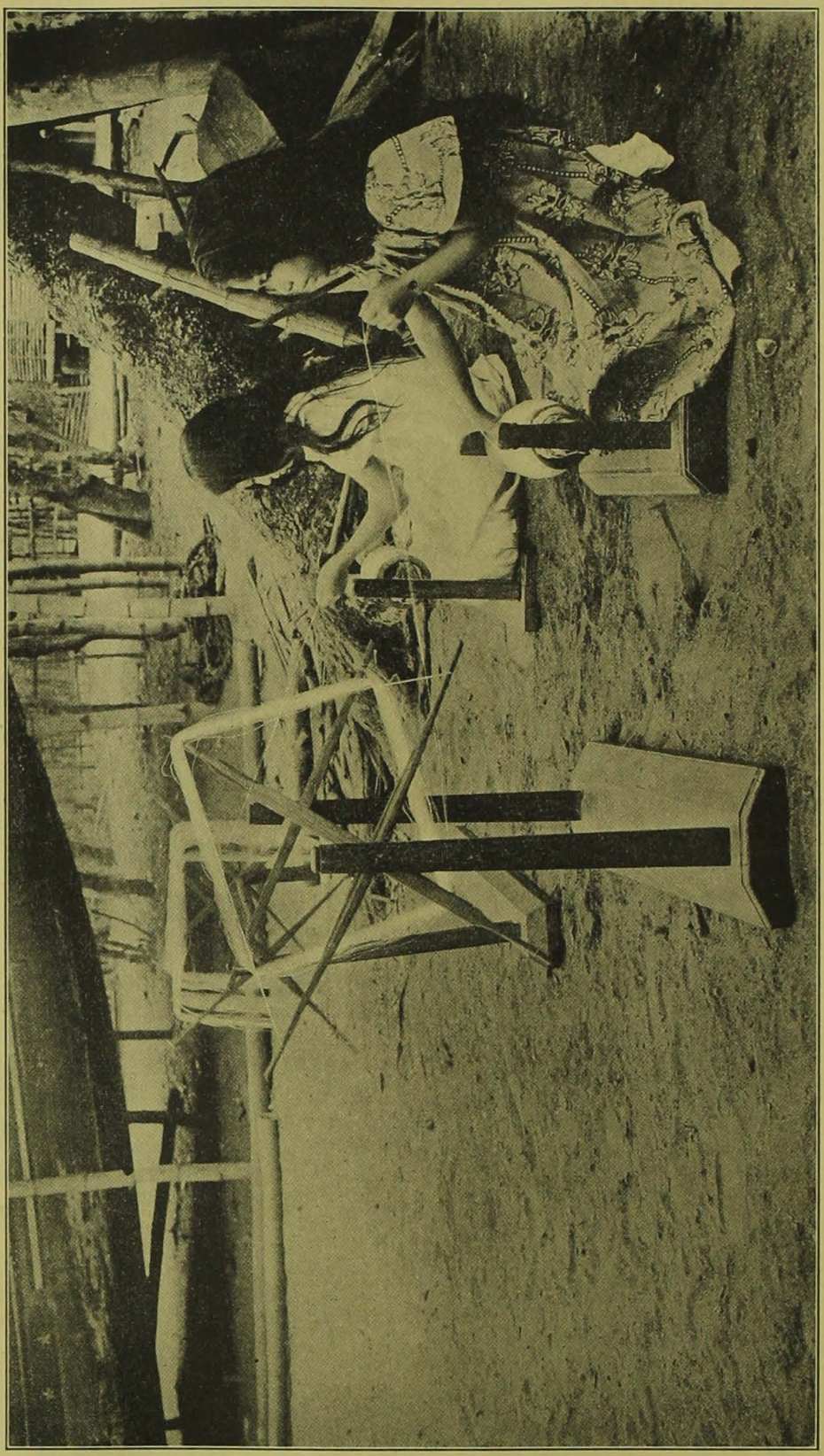

Plate III. Transferring the knotted fiber to bamboo bobbins.

are wound together as one string into a large ball. This constitutes the second stage in the process of cord manufacture.

The third and most important operation is the twisting of the cord. When used for industrial purposes it must be so manipulated as to make it hard, smooth and evenly twisted and so far as possible free from prominent knots. Two revolving spindles are used. The drive wheel which turns them may be especially manufactured for the purpose, but it is often a relic of a worn out bicycle with a short handle attached to two of the spokes. The whole machine bears a striking resemblance to the old American spinning wheel, but is smaller. The outer end of the four fibers is unwound from the ball and fastened to one spindle, and at the same time the other end is unwound from the inner part of the ball and fastened to the other spindle. A small boy draws out about 15 meters of string from the ball and stretches it taut. The operator, usually a woman, is seated on the ground. She furnishes the motive power and from time to time tests the revolving fibers with her fingers. When the four strands are each sufficiently twisted, the two small cords are fastened to one spindle and twisted together by a reverse motion, forming an eight strand cord of great strength. The completed cord called "a string" is transferred to two sticks thrust through the loops in the ends, and the operation is resumed until one hundred strings have been made. These constitute the market unit. They retail for about ₱1.20. It is stated that the strongest cord is made from wet material soaked by putting the ball of fiber in water for a minute.

As stated above, this operation differs from that by which cord is prepared for fishnets in one particular only, in that for the latter, the four fibers are tied at one time and are rolled into a ball directly from the skein, thus omitting the use of the bamboo bobbins. The knots in the net cord are necessarily more prominent in the completed work than in that used for industrial purposes, and since but little care is used in selecting the fibers the cord is uneven. Among the fishermen each family makes its own cord and nets, a labor in which men, women and children alike share. Although the nets are not made for sale and it is very difficult to purchase a good one, still a large number of people have a fair knowledge of cord manufacture, and they require but little encouragement to produce the cord in commercial quantities. Such work undoubtedly yields better returns as a supplementary labor than any other industry now open to them.

Twisting machines like those used in Cavite are fairly common in some sections of the Visayas but the cord is coarse and uneven.

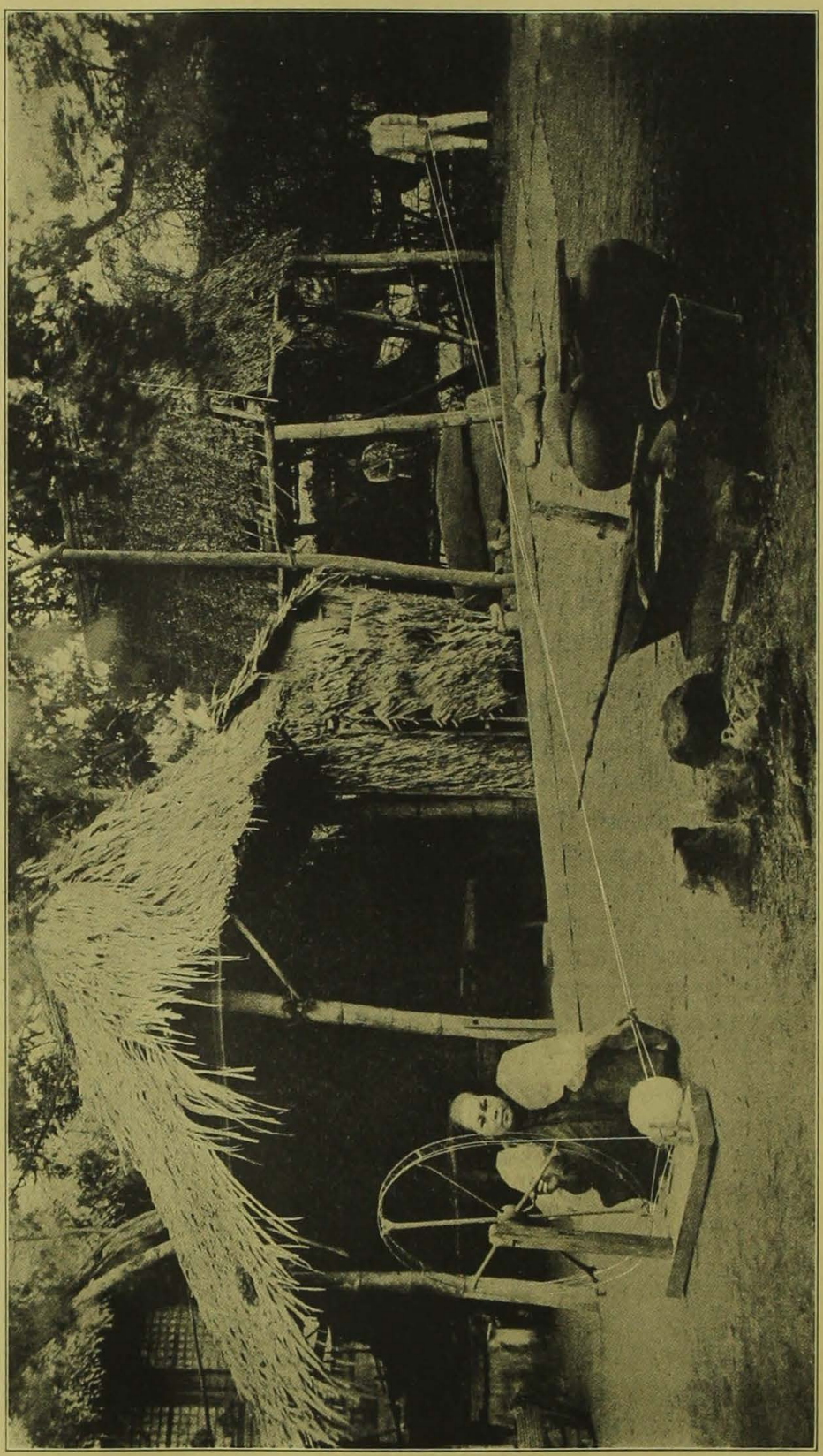

Plate IV. Twisting two strands at once; the third step in cord manufacture.

Abaca fiber has been used for some years in Capiz Province as material for slippers, and its value for this purpose is now well known throughout the Islands. At a later time the hand twisted cord was employed in the same manner in both Capiz and Sorsogon. Capiz first used the cord as a material for macramé and

Plate V. A worker and the completed cord.

lace handbags. The manufacture of woven handbags is believed to have originated in Albay and Cebu. All these industries have now spread to many other provinces. In all these provinces the cord is often produced by the hands alone. This is slow and tiresome work and the strings are short.

As a material for coiled baskets this cord possesses the primary merits of beauty, durability and comparative ease of manipulation. Designs are easily developed, and when the fiber is properly handled it assumes a silk-like luster. The cord possesses an additional advantage in that its diameter may be readily adjusted to suit the taste of the maker and the size of the object to be made by special selection of fibers or by twisting together two, four, eight or even sixteen fibers as desired. The eight-fiber cord from Cavite is largely used for industrial purposes, probably through custom, since such a cord has been found by experience to be best suited to the manufacture of nets.

Coiled baskets first received public attention during the Carnival of 1911. They are now made in most of the schools of Cebu, Bohol, Albay and the Island of Negros and to some extent in other provinces. Instruction in coiled abaca basketry is given in the Philippine Normal School at Manila. Besides, the cord is the best of all local materials for macramé and lace bags, for the toes of abaca slippers and for woven handbags. Many other uses will undoubtedly be found for it later.

The necessary machinery for producing the cord can be easily made, and the knotted abaca is now obtainable commercially. Abaca cord therefore can be readily produced in all towns, even in the schools. For colored cord, the skeins of knotted abaca should be dyed before twisting, as a uniformly colored cord is thus produced; but fair color results may be obtained after it is twisted.

SPECIALTIES—INNOVATIONS.

In his report for the year ending June 30, 1912, President McFatrich of the Chicago Board of Education says:

> I fear that in our modern tendency toward specialties and innovations, we are neglecting the vital and elemental facts in the training of the children on which the success of their lives depends. A little more of the old-fashioned "common branches" injected into our modern school systems would be conducive to their practical value and helpful to the growth of mental virility in our children.

Sound argument; and let us hope that its weight among educators in general may be in proportion to the dignity of its source. For a wholesome life of practical usefulness, the boy who enters manhood equipped with a thorough grounding in the common branches and with a knowledge of how to turn his muscular energy to good account runs the minimum of chances of failure.—J. D. D.