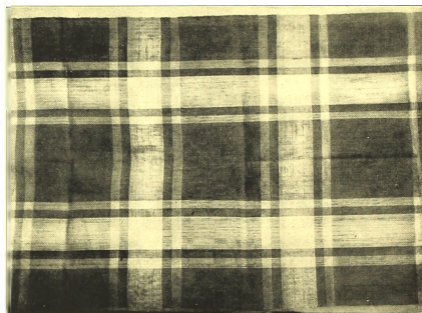

PRIMITIVE LOOMS AND WEAVING IN THE PHILIPPINES.

By LUTHER PARKER, Industrial Inspector.

[Illustrations by the author and others.]

ONE of the most interesting discoveries made by the industrial teachers of the Bureau of Education in their search for work utilizing local materials and the previous training of the people, has been that of the ancient art of weaving a coarse, cheap cloth from the raffia or outer skin of the leaflet of the buri palm (*Corypha elata*).

This cloth is reported as being woven in several isolated com-

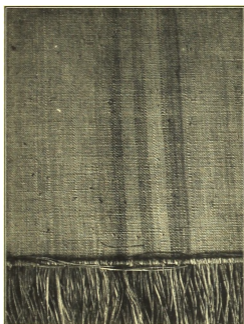


Buri-raffia cloth from Isio, Occidental Negros.

munities in the Philippines, such as the islands of Burias, Masbate, Tablas, Romblon, and Marinduque, in some isolated island barrios in the Aklan district of Capiz Province, in a few places in Bohol, a few mountain barrios of southern Panay, in some towns of Occidental Negros, and in certain districts of the Bicol provinces. It is probable that it is woven in several places yet unreported.

The cloth is known by various names in the different districts where woven. In Capiz and Camarines it is commonly called "daet," in southern Iloilo and southern Occidental Negros it is known as "banlo," while the term "saguran" is generally used in Bohol and in the Bicol provinces. "Bayocboc" in the eastern part of Iloilo Province and "hubuk" in Occidental Negros have also been reported.

In some isolated communities it is still used for clothing for both men and women, as in the barrio of Jardin, Bakon, Sorsogon. It is sometimes used for sails, mosquito curtains, pillows, sleeping mats or "blankets," and as a wrapper for baled tobacco.



Buri-rafia cloth from the "sicad" of Leon.

The coarsest cloth is made in Bohol and the finest is woven in Isio, Occidental Negros, and Leon, Iloilo. At both Leon and Isio colored stripes are woven in, the colors used being red, from sappan wood or "sibucao" (*Caesalpinia sappan*) and the yellow of the turmeric root (*Corcuma longa*) quite generally known locally as "dilao."

The weaving is usually done on the ordinary well-known loom at which the weaver sits on a bench and works the treadles with the feet. In a few out-of-the-way places, however, the

weavers still use a kind of primitive loom, called the "sicad" in the Visayan dialect.

The word "sicad" is common to several dialects, among which are the Tagalog, Bicol, Visayan, and Pampangan, having in each practically the same significance—that is, "to thrust or push with the foot," or to brace oneself with the feet against some object as a log or bar. It needs but a glance at this type of loom, in which the weaver sits on the floor and braces the feet against a horizontal bar of bamboo or wood, to understand the significance of the name.

The loom is without pedals and so constructed that the warp is kept taut by pushing the body back against a piece of wood or cloth to which the bar holding the cloth end of the warp is



Weaving on the Leon "sicad."

attached. In order to sustain this backward thrust of the body it is necessary to brace the feet against a crossbar which lies on the floor at right angles to the body of the weaver.

The following list of names of the parts of a sicad were obtained personally by the writer in the barrio of Bayag, Leon, Iloilo Province, where a loom of this type was found in operation:

Sicad.—The whole loom.

Pudan.—A piece of wood back of the weaver.

Atip.—Cloth beam.

Barira.—Batten, knife-shaped, of heavy wood.

Bintinganan.—Harness. (*Guyon*, Tagalog.)

Libo.—Lease rod of round bamboo.

Sarabdan.—Piece of palma brava across threads beyond the libo (lease rod).

Binting.—Heddle.

Siligsig.—Two strips of buri midrib at the beginning of the cloth.

Sablayanan.—Warp beam.

Sicadan.—Bamboo to brace feet against. (*Sicaran*, Tagalog.)

Tucod-tucod.—Two bamboos that go through the sicadan to form a frame.

Palay.—Peg in the tucod-tucod.

Pagsadan.—Bamboo at back, parallel with the sicadan.

Rorong.—Upright bamboo against the wall to hold the warp beam.

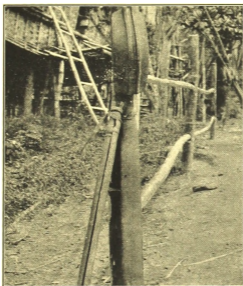
Lanzadera (Sp.).—Shuttle (modern).

Sicuan.—Bamboo shuttle (primitive type).

Calinyas.—Bobbin.

Patiyo.—Coconut leaf midrib that holds the bobbin in the shuttle.

Spindle. (*Culatingting*, Tagalog.)



Principal parts of the Lumangan "sicad."

Purundan.—Bamboo spool on which thread is wound before it is put on the warping frame. (*Pulunán*, Tagalog.)

Tondag.—Warp. (*Hanay*, Tagalog.)

Pugana.—Woof. (*Pacain*, Tagalog.)

Samay.—Design. (*Samay*, Tagalog.)

Another sicad was found in the barrio of Lumangan, Miagao, Iloilo Province. The former owner of this loom, Juana Panugadia, now deceased, wove a hard cotton cloth of homespun thread and of a design peculiar to that section of the province.

At this place I found the pieces of a very primitive warping frame, that, so far as I know, is unique especially in the use of the fallen trunk of a banana plant to hold the upright pieces on which the thread is wound. The Manobo weaver uses a piece

of bamboo in place of the banana stalk. Each part of the frame having a name in the dialect would argue its antiquity. In the hope that this article will reach the notice of some one who has seen a similar contrivance in other parts of Malaysia, a photograph of the frame and a list of the names of its parts are given.

PARTS OF THE WARPING FRAME.

Sabunganan.—Warping frame.

Barakdan.—Long horizontal brace of the warping frame.

Patuctuc.—The upright pieces, called a pair, that hold the ends of the "barakdan."



The warping frame at Lumangan, Iloilo.

Libo.—The knifelike piece used to mark the place of the lease rod.

Bintinganan.—The piece of wood to mark the place of the heddle or "binting."

PARTS OF THE SICAD.

Pudan.—Piece of wood back of the weaver.

Barera.—Batten.

Binting.—Heddle, worked by hand.

Atep.—Cloth beam. (The pronunciation of this word varies with the locality.)

The present owner of the loom being absent, I was unable to procure this very interesting, and, I believe, rare example of a primitive warping frame.

I saw and photographed a piece of cloth (see illustration) that was woven on the *sicad* of the deceased Juana. No one now weaves on the *sicad* in Lumangan, but it was asserted that in Bitaoayan, near the barrio of Igpaho, Miagao, there is a woman who still weaves on a *sicad*.

In the town of Miagao there are but two or three women who now weave buri cloth or "banlo," as it is called, and their weaving is done on the ordinary treadle loom. This loom is often made



Cloth woven on the Lumangan "*sicad*."

almost entirely of bamboo. "Banlo" was formerly woven quite generally in this community, as was also a form of homespun tapestry of which a few pieces are yet in existence, having been handed down as heirlooms. I saw and photographed several of these interesting "sobre-camas" or bedcovers, as they are quite generally known. (See illustrations.)

As can be seen by consulting the plates given herewith, the designs are in some pieces quite highly conventionalized. The

significance of many of the designs has been forgotten, generally, but it is hoped that a closer study of this question of design will enable the Bureau of Education to discover the significance of most of the designs. Few women are now alive who know how to reproduce the difficult pieces of this tapestry. An old man, who had seen this cloth woven on the *sicad*, gave a vivid dramatization of the method of weaving one of the intricate designs. According to his description of the process there were two or more heddle tenders on each side of the cloth who passed and repassed each other rhythmically, and, as he expressed it, "as if



Embroidered Miagao "tapestry."

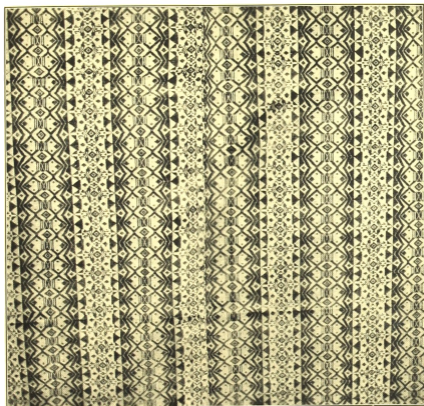
they were dancing." He stated that no one lived now in that community who knew how to weave in the old way.

The age of some of these bedcovers, or hammocks ("*duyan*" in Visayan) as they are also called, is well authenticated, and in a few cases the date is woven in the cloth. I saw one dated blanket over 80 years old. Others were said to have been made as far back as the latter part of the eighteenth century and are yet in a good state of preservation.

Several of these blankets have been heavily embroidered with native cotton thread for the space of 2 or 3 feet from each end. The designs used appear to have had an European

source or at least to have been influenced thereby, although the "manaol," or white and brown hawk, is a bird well known in Philippine mythology, and as "Singalong Burong," or war god, of the Dyaks of North Borneo from whom the Visayans of the Miagao section claim descent.

Likewise, the tiger which is used as a motif in these designs is native to the Malay Peninsula and therefore well known to the Bornean ancestors of these people through their contact with



Some Miagao "tapestry."

the traveling Malay merchants of pre-Spanish times. These tapestries have been used in Miagao for a century or more for decoration of the *via crucis* on Corpus Christi day, a carpet being made of them from the church door over which was carried the image of the saint.

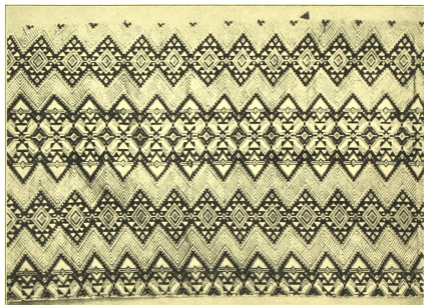
The number of blankets is decreasing yearly and the quaint customs connected with their use will soon be of the past.

A study of the distribution of the sicad develops the fact that it is used quite generally in the Mountain Province (see plate

of Ifugao woman weaving on primitive loom) as well as among the non-Christians of Mindanao, in addition to the more or less isolated communities cited in the Christian provinces.

Its use is quite extensive among the tribes of northern Borneo. Mr. Thomas S. Chapman is quoted by H. Ling Roth in "The Natives of Sarawak and British North Borneo" as follows:

At present there are only two kinds of looms, the "tumpoh" at which the weaver sits on the floor and uses the hands only, and the "tenjak" at which the weaver sits on a bench and uses hands and feet, the latter working treadles.



Some Miagao "tapestry."

Evidently weaving in Borneo is done much as in the Philippines as far as the matter of looms is concerned.

The "tumpoh" is the hand loom of the Dusuns of British North Borneo and a plate of this loom, the original of which is stated to be in the British Museum, is shown on page 30, of Volume II, of "The Natives of Sarawak and British North Borneo."

A photograph of the "sicad" from Iloilo Province accompanies this article and will serve for comparison with the "tumpoh" of the Dusuns.

From all evidence at hand it would seem reasonable to suppose

that the "sacad" is the original primitive type of loom of the Philippine Islands and that it was introduced directly by people from Borneo, Java, or Sumatra with which places trade was being carried on when the Portuguese first came to the Indies, near the end of the fifteenth century, and with which countries there were probably commercial, political, and religious relations for many centuries before the arrival of the first Europeans.



Some Mlagao "tapestry."

It is quite probable that the art of weaving on this primitive loom was brought from India originally. The Hindu weaver of the present day uses a very similar loom of great simplicity. It would seem likely that weaving might have been introduced in various parts of Malaysia by Buddhist missionaries, since the strongholds of Buddhism were comparatively near for many centuries.

The Japanese still use a loom of the "sacad" type in which the

weaver sits on the floor inside a framework that serves as a brace for the body and feet, the "sicaran" of the Tagalog, Pampangan, and Visayan dialects.

In ancient times the people of Malaysia, quite generally, no doubt, wore cloth made from the beaten bark of trees and later learned to weave cloth from the fibers of various plants such as the "saba," a species of banana, the abaca fibers, and the raffia from the buri palm. Mr. Thomas S. Chapman, already quoted by Roth, says (Vol. II, p. 35) :

"Tekalong" bark in former days, when cloth was not to be had, was used by the Dyaks of the Batang Lupar district (Borneo) for their waist cloths.



Ifugao woman weaving on the primitive loom.

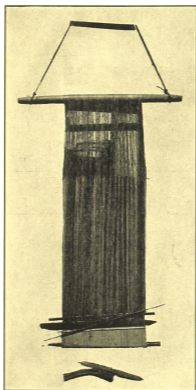
It is even now in use by the Dyaks in the "ulu" or heads of rivers where cloth is expensive, and by persons who cannot afford to buy cloth.

In 1907, I saw a Negrito woman make a piece of bark cloth on the Gumain River in the Zambales Mountains of Pampanga Province. I believe that Prof. Frederick Starr, of Chicago University, secured the piece for his collection.

The above discussion, with the citations given, and others omitted for lack of space, makes it clear that the Filipinos were undoubtedly familiar with weaving, especially on the hand loom, long before the advent of the Spaniards. As to the time of the introduction of the foot loom in the Philippines no reliable information has yet come to the knowledge of the writer.

Jagor, who was in the Philippines about 1860, makes the statement that Father Sedeño, a Jesuit, introduced the culture of the silkworm and weaving in the Philippines in 1581, but in view of the undoubted antiquity of loom weaving in the Archipelago, it is likely that Sedeño introduced the weaving of silk only, and not weaving in general.

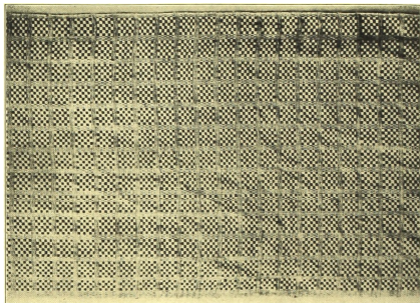
The writer visited the barrio of Bayang of New Washington, Capiz Province, on July 27, 1912, in company with the division



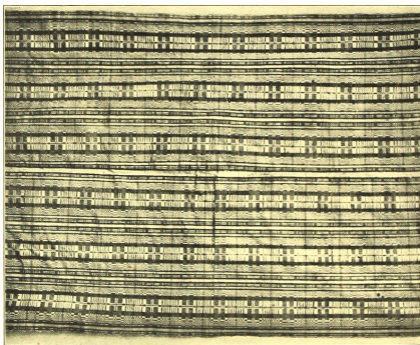
The "sicad" of Leon, Iloilo.

superintendent and the division industrial supervisor for the purpose of investigating the weaving of buri-raffia cloth.

This barrio is on a small island several hours' row from any municipality and but little visited or influenced by any one from the outside world. Our investigations were carried on in the house of the Reyes family, who lived on a small hill just above the landing place and wove raffia cloth, of ordinary quality, for the market. The mother and grandmother of the present head of the house wove this cloth and there is no family tradition as to when their ancestors settled at this place or learned the craft.



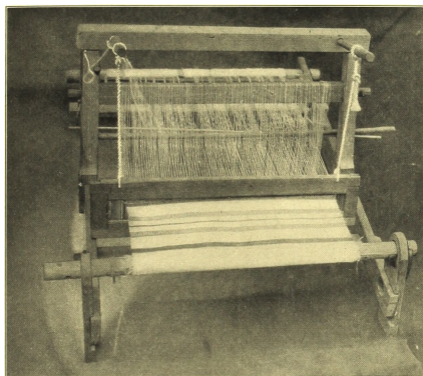
Hamasaut from Bahai.



Cloth woven on "slead" in Bayag, Leon, Iloilo; "Whirlwind" design.

The family consisted of the mother, 40 years of age, and several daughters who gave most of their time to weaving outside of the time consumed in necessary housework. Working thus it was calculated that it would take five persons four days to tie and reel 28 meters of thread and about ten days would be required to weave 28 varas of "daet."

It was stated that a woman working steadily could weave 4 varas of cloth in a day of ten to twelve hours. Only approximate



Hand loom for buli-rafia cloth.

figures could be obtained and these after much questioning and checking of answers as the methods of the "efficiency engineer" were of course unknown to this family in their little industry and they were unused to the idea of figuring out processes. It would be interesting to follow up our visit and ascertain its effect on these simple people and learn if they considered that they had been entertaining some fanatics obsessed with figures or whether they grasped the idea of experting their own work and by figuring on it came to the same conclusion that we did; namely, that it

did not pay them to work for the 7 centavos a day each that their weaving brought them.

The names of a few of the parts of the loom used here and the parts of a leaf of buri, follow:

Binting (Visayan: Thread).—Heddle made of raffia.

Sabungan.—Reel on which the thread is wound preparatory to putting it in the loom.

Sulod (Visayan: Enter; go in).—Reed; made of hibiok splints.

Bugus.—(Visayan: All, whole).—A piece of cloth.

Daet.—Buri-raffia cloth.

Buntal.—An unopened leaf of buri.

Panid.—A leaflet.

Pihac.—(Visayan: To halve; to split). Half of a leaflet.

Pungpung (Visayan: Bunch).—A bundle of raffia from one leaf.

Pac-is.—Upper part of "pihac."

Quisquis.—Lower part of "pihac."

Dinaitan.—Inner part of leaf or waste.

Cogon.—Midrib of "panid."

Pac-lang.—Petiole of the "buntal."

Nahot (Visayan: Fiber, thread, string; buntal fiber).—Fiber from the "pac-lang."

Taguic (Visayan: To weave bamboo slats).—Sixteen threads of about 1 meter each.

The upper part of the leaf, or "pac-is," is used for the woof.

The lower part of the leaf, or "quisquis," is used for the warp.

The "pac-is" is smoother and thinner than the "quisquis."

STRIPPING THE BURI RAFFIA.

One of the Reyes girls took an unopened buri leaf and separated each leaflet by hand.

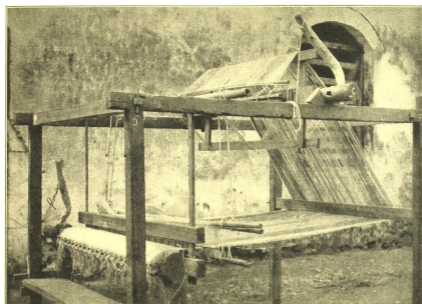
The midrib of the leaflet was stripped off, leaving two separate half leaflets. A half leaflet was then held by the tip with the left hand, the base of the leaflet being held by the foot. With the upper part of the leaflet held uppermost, the top of the leaflet was bent over, away from the person, until the surfaces were in contact. By pressing the tip down and sliding it back on itself toward the body, a blister was raised in the skin of the leaflet serving as a place of departure from which the skin could be separated from the pulp. The remaining or lower half of the leaflet was then scraped free of pulp with a knife.

The skin of the upper part of the leaf was thinner and smoother than that of the lower and was piled separately.

The girl who stripped the buri used her back comb to shred the leaflets into threads which were laid in the sun to dry before being tied. The whitest buri raffia has been prepared in Bohol. The raffia, after being scraped clean of all pulp, is put at once in the hot sun until dry, usually no chemicals being used.

The following directions for putting buri raffia thread on the modern warping frame were given me by the weaving teacher in the public school at San Joaquin, Iloilo, August 10, 1912, for the ordinary treadle loom.

This warping frame had 19 pegs on each side and five double pegs in the middle.



Ordinary treadle loom with buri-rafia cloth set up.

Begin to wind with two threads on peg No. 7, right side, counting from the top, the ends of the threads being tied together and slipped over the peg. Carry to middle double peg, under right peg, over left, to left side peg No. 7, under, to peg No. 8, right, under, back over to peg No. 8, left, up and inside Nos. 9 and 10, outside No. 11, over and down inside and cross outside,



Bamboo shuttle. (a) Upper end; (b) tongue; (c) notched base.

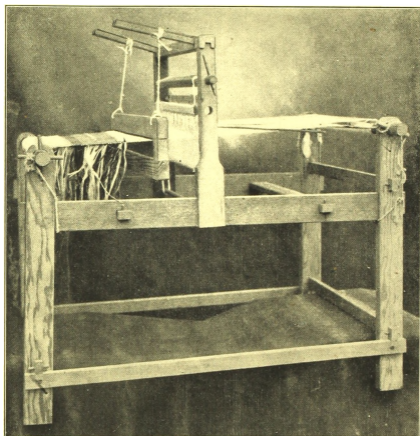
down by Nos. 10 and 9, under No. 8, left, across to No. 8, right, over and under, back across to No. 7, left, over and under and to middle double pegs, under left double peg, over right double peg, across to No. 7, right over and under. Repeat above movements until 17 ties of 40 threads are wound.

A simple bamboo shuttle, about 18 inches long, like the one

illustrated, was used to carry the buri raffia thread for the woof. Another primitive shuttle is made of a strip of bamboo or wood with a notch cut in each end.

The following directions were given for threading the "sikuan" or primitive bamboo shuttle:

Take shuttle in left hand, point *a* up with thread tied at base of tongue *b*; bring thread down to base *c*; under base, up, turn



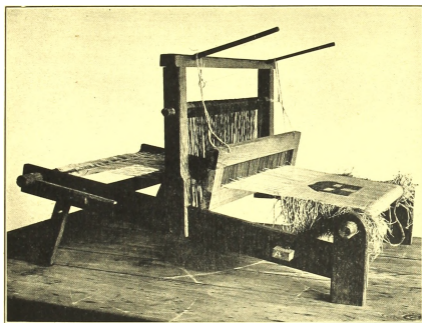
Side view of hand loom with legs.

shuttle in hand toward right, push tongue forward and out using forefinger and thumb of left hand, bring thread over end of tongue; away from the body, bring thread down, under base, turn shuttle toward right, bring up, push tongue backward, put thread over end of tongue away from body. Repeat these motions till the shuttle is wound.

Any study to be of value should result in increasing the efficiency of the workers and thus raising the daily wage. Simply

to demonstrate that only 7 centavos a day is earned by work of this nature would be of no practical value unless a method could be devised by which this sum could be increased.

It is believed that the Bureau of Education is in a position to make the weaving of buri-raffia cloth a profitable industry, though it is now one of the poorest money getters of the household industries. The improvement of the quality of the cloth so that it can be used in making fancy cushions, screens, porch pillows, mats, and various other articles commanding a good price as articles of luxury instead of being used for the roughest and



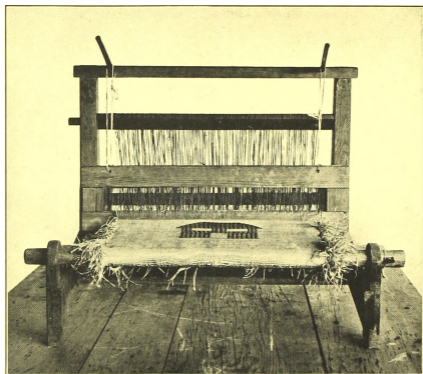
Hand loom for the weaving of buri-raffia cushion covers—side view.

cheapest sort of work will make it possible for a weaver to make a good living wage instead of a mere pittance as at present.

A small loom (see illustrations and working drawings) was perfected at Baguio during April and May, 1913, by Messrs. Jos. H. Loughran and Raymond R. Sage, division industrial supervisors. This loom can be used for weaving raffia cushions and strips of sinamay and cloth that can be embroidered with abaca and made into screens, porch pillows, mats, and like articles. It will be put into a number of schools this year and it is believed will form the basis for a regeneration of a decadent industry that commands the interest and respect of students of textiles for its

primitive character and for its persistence through the centuries during which the people possessing the art traveled by slow stages far from their ancestral homes probably in Sumatra, Java, and Borneo to the distant "three islands" spoken of in the thirteenth century by the Ptolemy of the Philippines, the Chinese geographer, Chao Ju-kua.

In the ethnological museum of the Bureau of Science on Calle Anloague, Manila, there are several primitive looms from Min-



Hand loom for the weaving of buri-rafia cushion covers—front view.

danao, which have been set up, making an interesting exhibit for the study of primitive methods of weaving. There are also similar looms in the museum from northern Luzon.

Since the Manobo and Mandayan peoples of eastern Mindanao are geographically nearer the Visayans than are the people of the north of Luzon and have closer affinities in language and customs it is interesting to compare the names of the parts of their primitive loom with those of the Visayans.

The following list was furnished me through the courtesy of

Mr. J. M. Garvan, who has personally collected in Mindanao many of the articles named:

Loom.—Hablón or habion (Manobo); ablón (Mandayan); habol (Visayan).

Warp beam.—Sapatán (Mandayan).

Cloth beam.—Pangana (Mandayan); ososan (Manobo).

Batten.—Balila (Mandayan).

Reed.—Sood (Manobo and Mandayan).

Lease rod.—Sikuan (Manobo and Mandayan).

Shuttle.—Bibitan (Mandayan).

Abaca thread.—Lanot (Mandayan) lanot or yanot (Manobo).

Abaca thread before being set up.—Hinanay (Manobo).

Basket for holding thread while being knotted.—Supónan (Mandayan).

Design.—Bentok (Mandayan); batok (Manobo).

A primitive warping frame, made of a few pieces of bamboo, is used by the Manobos. One of these warping frames is exhibited in the Anloague museum under No. 3592.

The foregoing article is not exhaustive of the subject of primitive weaving, but is intended to stimulate similar studies of like interesting subjects bearing upon the industrial work of the Bureau of Education in the Philippines.

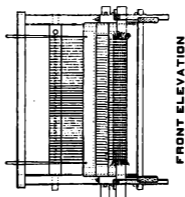
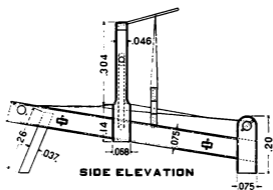
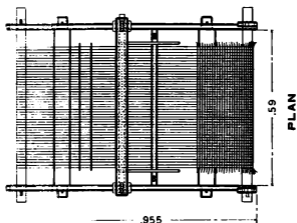
WHAT THE BEST SIGNIFIES.

Many persons have no conception of what progressive ideas really mean. Now and then one has an opportunity to get a tangible demonstration of progressiveness, such as the work of Professor P. G. Holden and his associates in Iowa, who promoted seed testing for eight years.

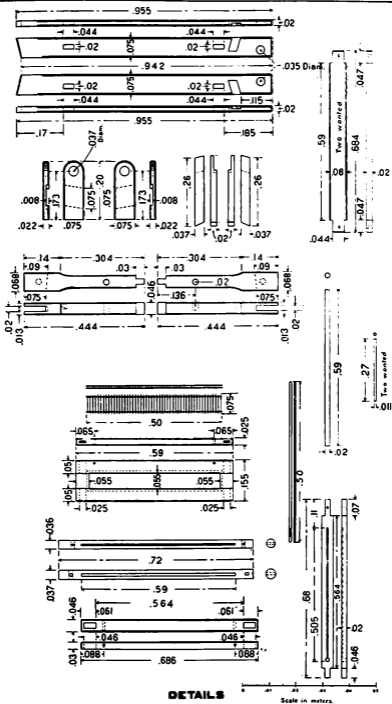
We do not need to insist that the figures which are here given in round numbers shall be verifiable in every particular in order to realize that the enormous gain is beyond comprehension. If they were half as great they would still be incomprehensible.

Iowa's corn crop has been increased fully 3 bushels per acre. There are about 100,000 acres in corn per county, and there are ninety-nine counties. This makes 300,000 bushels per county or about 30,000,000 bushels extra for the State. This production would be literally realized if every farmer tested his corn scientifically and if all good corn land were utilized. At 50 cents a bushel this would mean a gain forever and ever of \$15,000,000 a year to one State from the activities and scientific revelation and promotion of one man.

Every decided improvement in school work has as definite a possibility as this. (Journal of Education.)



Mat loom.



Mat loom.