

IFUGAW WEAVING

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In this paper we shall describe the Ifugaw loom, and whatever refers to weaving and the various kinds of cloth made and used in Kiangan.

Weaving, from cotton to cloth, is the exclusive task of women. They weave for themselves and the members of their family, but only occasionally for selling purposes. Girls learn how to weave by helping their mother or elder sister, for example in putting up the warp (see *infra*), and by actual practice under the latter's supervision: most of them become quite skilled within a short period of time. The weaving tools, i.e., the loom sticks, the spindle, the apparatus for fluffing, skeining and winding, are, of course, made by the men.

I. SIMPLE PROCESS: FROM COTTON TO CLOTH

1. MATERIAL, FLUFFING

The Ifugaw of Kiangan mainly use *ka'po* (*Gossypium paniculatum*, Blanco, *Malvaceae*) and *tukli'ng* (*Gossypium herbaceum*, L., *Malvaceae*). The former is cultivated on mud heaps, *ina'do* or *pingko'l*, made in the rice paddies some time after the harvest; the latter on the slopes of house yards or villages and sometimes in sweet potato fields. The *ka'po* is by far preferred to the *tukli'ng* because it yields a whiter cotton.

Exceptionally and mostly to weave *la'mma* upper garments (see *infra*) they use *pol-o'g* (*Triumfetta suffruticosa*, Bl., *Tiliaceae*), i.e., the fibres of the plant's bark, isolated by repeated scraping with a small knife, *agu'tan*, and then torn off, *bik-i'hona*, lit., she tears them off. As soon as the fibres are dry they are ready for spinning; *pol-o'g* thread is light brown in color and quite rough.

To prepare both the *ka'po* and *tukli'ng* bolls for spinning, they first separate the cotton from the pericarp, *w'ki(b)*, of the bolls with their fingers, *wki'banda*, and spread the cotton in the sun to dry, *ihap-e'da*. When the cotton is sufficiently dry and has expanded, *nabo'kyag*, they clear it of seeds, *bu'wa*, by hand, *nutnu'tonda*. After it has been cleared of seeds, a small bow, *bu'bug*, is used to fluff it. The operator takes hold of the bamboo bow with one hand, and with the other repeatedly pinches the string, making it pass through the

mass of cotton that has been gathered up in a heap and put on a board (*bubu'-gonay ka'po*, she fluffs the cotton).

Then she rolls up, *ludu'nona*, the fluffed cotton, *binu'bug*, into slivers, *lu'dun*, of some 2 inches thick and 6 inches long. The material is then ready for spinning.

2. MUN-ADAME', SPINNING

Spinning is done by means of the *toba'yan*, spindle (see Fig. I and II). It is made of two small pieces of hard wood: the *li'bong* and the *toba'yan* proper, i.e., the shaft of the spindle. The *li'bong*, which has the shape of a truncated cone, base upwards, serves as support for the bobbin; through it passes the *toba'yan* proper, which at about 5 to 7 cm. from its lower end is provided with a small flattened knob on which the *li'bong* rests; the upper part of the shaft is some 20 cm. long, from the *li'bong* to its summit, where it is thinner and near which it is provided with a small knob *pai't*; its lower end likewise decreases in thickness so that it ends with an obtuse point *dumi'ing* (see Fig. II).

The spinner first makes some 50 cm. yarn, *indame'*, twisting, *ipuli'pul*, the cotton with her thumb and index fingers; then she winds the yarn thus obtained a few times around the shaft, between the *li'bong* and the *pai't*, makes a loop above the *pai't* and starts spinning. With her left hand she holds a sliver of cotton above the spindle, gradually extending her arm as the spinning proceeds; with the fingers of her left hand she alternately makes the spindle twirl, *pulgi'yona*, and controls the thickness of the spinning yarn, *ipuli'pulna*; every time some 60 to 70 cm. yarn are spun, she undoes the loop and winds the thread on the spindle.

To prevent the spindle twirling away from her, the spinner strews some lime on the surface (say, a board) on which she lets the *toba'yan* twirl, or else lets it twirl in a wooden bowl.

3. IWALA'NGAN, SKEINING

The operator winds the yarn on the *wala'ngan*, an upright piece of wood of some 30 cm. in length, to which, at both its ends, a transversal piece of wood is mortised (see Fig. III). She ties the end of the yarn to the upright piece of wood, takes the *wala'ngan* in her left hand and begins with her right to wind the yarn around it, i.e., from A to C, from C to B, from B to D and from D to A, and so forth. After all the yarn has been wound on the *wala'ngan*, she subdivides the yarn into hanks, *bi'ling*, knotting a small string around a number of threads: she has to count the threads which she so bundles into hanks, whenever she intends to weave a textile with designs.

Finally she removes the yarn from the *wala'ngan*; she has then one skein, *hintala'kid*, consisting of several *hi'ling*.

4. DYEING

When, according to her estimate, she has enough skeins for the textile she intends to weave, she carefully calculates how many *hi'ling* of each different color will be needed and separates the desired number of hanks, *hi'ling*, from their skein, *tala'kid*, if necessary; then she ties all the *hi'ling* for each particular dye in one bundle with a loose rattan strap, *bugwi't*.

1. White dye: Although the *ka'po* and *tukli'ng* yarn are naturally white, they are given, for more resistance, a bath of boiling rice milk, *inta'mong*, for some 10 to 15 minutes. Then she removes the several *hi'ling* from the pot and hangs them to dry, *ibay-u'na*, on a horizontal stick; she stretches them by means of another horizontal stick to which she ties a number of stones, *ponado'na*. White yarn is called, *mumbobola'*, white, or simply *ka'po* or *tukli'ng*, cotton, or *indame'*, yarn.

2. Blue dye, *munda'lum*: The *tala'kid* composed of a number of *hi'ling* is boiled for approximately one hour in a pot of water in which are some leaves of *da'lum*, a species of indigo growing in the forest.

3. Black dye: First the dyer boils the skein(s) or hank(s) in a pot of water in which she put some leaves and twigs of a *bu'lu* tree (*Acalypha grandis*, var. *velutina*, Benth., *Euphorbiaceae*); then she removes the *tala'kid* from the pot and immediately throws it in a trough, usually a pig's manger, *balu'nglung*, which is filled with mud, taken from such rice fields which have a very thick layer of mud; she pushes the yarn into the mud, *ibuthu'tna*, and kneads it for some time, *igadi'gadna*. After that she goes to wash the yarn at the spring and repeats the whole process, up to some fifteen times (5 times a day during three days) until she sees, when she is washing the skein at the spring, that the yarn is black enough and seems fixed. Black yarn so obtained is called *pinu'yyok*; *pu'yyok* means, mud.

4. Yellow dye, *kula'lo*: The dyer pounds some tubers of the *kula'lo* plant (*Curcuma zedoaria*, Berg., Rosc., *Zingiberaceae*) and mixes some lime in the *kula'lo* powder when it is still wet; the more lime she uses, the darker the yellow color will be. When she judges that the mixture of yellow powder is sufficiently dry, she pushes into it, *ibuthu'tna*, a few *hi'ling* of yarn, say two or three, kneads them, *igadi'gadna*, shakes them, *yag ya'gana* and finally hangs them to dry in the sun, *ibap-e'na*.

5. Red dye: The dyer boils some small splinters of the stem of a *bu'ngbung* tree (*Pterocarpus*, species, *Leguminosae*) in a pot of water; when the water seems sufficiently red she bathes her skein in it and lets it boil for some minutes. Red yarn is called *tapa'ng* or *tinapa'ng*; *sapa'ng* is the name of the

tree (*Caesalpinia sappan*. L., *Leguminosae*) the splinters of which the Ilocano use to obtain a red dye for their yarn.

Since the whole process of spinning, skeining and dyeing is quite slow and requires much time, the Ifugaw prefer nowadays, to buy their yarn from outsiders for their ordinary weaving; a great variety of colors is imported; they buy especially *tina'yum*, dark blue, which they use instead of their black, mudded yarn.

5. PUDU'NON, WINDING

To wind the yarn into balls, *pu'dum*, or *pinu'dum*, the Ifugaw use a kind of winding wheel, called *pudu'nan* (see Fig. IV). Since almost all Ifugaw textiles are warped and woven with doubled yarn (*nati'lup di indame*, the yarns are brought together), the operator puts two skeins on her *pudu'nan* and winds her ball with a thread from each skein. If she will need a quadruple thread (for example for warping stripes in which she wishes to weave designs, see *infra*), she will have to repeat the skeining operation with a double thread and to put two double threaded skeins on her winding apparatus: *opa't di nati'lup*, four (threads) brought together.

6. THE LOOM, ABLA'N

The Ifugaw loom consists of a number of rods of various thickness and shape; the term *abla'n* includes the rods, the sword, the shuttle and the operator's belt; these parts are all kept together in a bundle when not actually used, the belt serving as tie. They are the following:

1) The *ulu'wan* (stem, *u'lu*, head; suffix *an*), the heading-rod; lit., the rod provided with the head, i.e., of the chain, while it is being woven. It is made of hard wood; it is more or less half a meter long, one inch thick, and is at both its ends provided with a ring or a small bulb.

2) The *lolota'n* (stem, *lolo't*, that which runs through, suffix *an*), or warp-rod. Since all threads of the warp are wound around it, it can be said to be provided with the 'running through' action, to have the function of running through the warp; it keeps the threads of the warp in their right position and also prevents the entanglement of threads. It is also made of hard wood, is usually a little longer than the *ulu'wan* and but one centimeter in diameter.

3) The *punggul-u'nan* (stem *gu'l-um*, heddle, prefix *pun* and suffix *an*) the heddle-rod. There are two kinds of heddle-rods: the *punggul-u'nan* proper, which serves to raise all the even threads of the warp, and the *punggul-u'nan di li'hba*, the rods that raise the threads which make designs (see *infra*). The former, made of hard wood and of the same thickness and length as the

lolota'n, properly belongs to the loom, while the latter are usually ordinary canes, which may eventually be thrown away after they have served a few times.

4) The *tubo'ngan* (stem *tu'bong*, bamboo internode, suffix *an*), the gape-rod, lit., the bambood rod. It raises all the odd threads of the warp, not by being lifted by the operator, but by its being much thicker than the other rods,—about two inches thick—in this way it always forms a gape. Some looms have a hard wood rod instead of a bamboo *tubo'ngan*.

5) The *bali'ga*, the sword, likewise made of hard wood, and of the same length as the other rods; for its shape and sub-terms, see Fig. V; it serves to widen the gape made by the *tubo'ngan* and to beat up the weft thread against the portion of the textile already woven. The *bali'ga* has, moreover, a ritual significance, i.e., in magical tales it serves to open the way from the house-yard to the Underworld, when one of the deities makes it ladle. Besides, it is taboo to step over it, when it happens to lie on the ground, lest it would lose its ability to weave well made textiles, lest the one who uses it afterwards may contract an illness of the eyes or suffer a similar misfortune.

6) The *biki'tan* (stem *bi'kit*, a kind of trap net to catch bats, suffix *an*), the shuttle; the *biki'tan* has more or less the shape of a miniature *bi'kit*, because of its projecting ends (see Fig. VI, a). It is not made of hard wood, which would make it too heavy for shooting.

7) The *hagipi'lan* (stem *hagi'pil*, suffix *an*; *hagi'pil* seems to be composed of *bi'pil* with infix *ag*, *bi'pil* meaning, double, a pair, and the infix *ag* inferring the meaning of something that is round in shape), the pincer-rods. The *hagipi'lan* is composed of two rods (see Fig. VI, b) each of which is provided at both ends with a small fork. The warp, or the part of the textile already woven, passes between the two rods and is therefore pinched by them when the operator strongly binds them together by means of the strings of the *kala'big* (see Fig. VI, b).

8) The *kala'big* is the dorsal belt by which the loom is fastened to the operator. It is usually a piece of leather some 40 cm. long and 12 cm. wide provided with strings that end in a loop (see Fig. VI, b); these she winds a few times around the double *hagipi'lan* and hooks them into the forks.

7. MUNHA'UD, WARPING

The Ifugaw usually weave under their house. The operator strongly attaches the *ulu'wan* with ordinary strings, *linu'bid*, to a bamboo pole that rests on two of the *hali'pan* disks or *li'di* cylinders of the house posts¹. If the bamboo pole, in this connection called *pun-abla'n*, is put underneath one

1) See Francis Lambrecht, Ifugaw Villages and Houses, *Publications of the Catholic Anthropological Conference*, Cath. Univ. of America, Wash. D. C., Vol. I, No. 3, p. 128.

of the *mundi'lig* beams of the house cage, the operator goes to sit on a low wooden block, *dalapo'ng*, put on the ground more or less underneath the opposite *mundi'lig*¹, she stretches her legs and feet against the *bika'dan* (a heavy piece of wood, or a stone) and fastens the *kala'big* to the double *bagipi'lan*. Her helper then connects both ends of the *ulu'wan* with those of the double *bagipi'lan* by means of the loop string called *topo'ng* (see Fig. VII). When the necessary adjustments have been made, the three rods needed for warping are inserted at a suitable distance within the reach of the sitting operator (operator A), as shown in Fig. VII; the three rods are the *lolota'n*, the *punggul-u'nan*, and the *tubo'ngan*.

The frame being thus ready for warping, operator A first knots or twists a double thread to the *topo'ng* at her left, near the *tubo'ngan* rod; this is the *gu'l-un* thread from the *ginu'l-un* ball, a ball specially wound from a hank, *bi'ling*, with white yarn and a hank with black yarn; it must serve to make the loops of the heddle(s). Having attached it, she leads it across the frame, in front of the *tubo'ngan*, and lets the ball fall on the ground.

Operator A takes then the first ball of yarn for the warp, knots or twists its end likewise to the *topo'ng* at her left side, near the *bagipi'lan*, passes the ball under the *gu'l-un* (the thread that runs across the frame, as said above), under the *tubo'ngan*, above the *punggul-u'nan*, under the *lolota'n*, winds it once around the *lolota'n* and drops it into the basket which her helper, (operator B) standing there, holds. Operator B moves the basket (in this connection the basket is called *punbau'dan*) with the ball, which winds off, to the *ulu'wan*, takes the ball, passes it above the *ulu'wan*, drops it in the basket and brings basket and ball back to and under the *lolota'n*.

Meanwhile operator A has twisted or knotted the end of a second ball to the *topo'ng*, passed it above the *gu'l-un* thread, under the *tubo'ngan*, the *punggul-u'nan* and *lolota'n* rods, wound it once around the *lolota'n* and now drops it in the basket of operator B, while she takes with her other hand the first ball; this she passes under all the rods and, from below, around the *bagipi'lan*. Continuing with this ball, she passes it under the *gu'l-un* thread and the *tubo'ngan* rod, above the *punggul-u'nan* rod, under the *lolota'n* rod, winds it around the *lolota'n*, drops the ball into the basket, takes the second ball, passes it under all the rods and around the *bagipi'lan*. Then she brings the ball toward the *tubo'ngan* while she moves with her other hand the *gu'l-un* over the *tubo'ngan*, so that now the loop will be formed beyond the *tubo'ngan*, passes the ball under the *tubo'ngan* and above the *gu'l-un*, under the *punggul-u'nan* and *lolota'n*, winds it once around the *lolota'n* and drops it into the basket.

This fourfold (see Fig. VII) operation is continually repeated until the whole warp is set. Both operators must of course see that each thread of

1) See p. 5.

the upper chain always runs over or under the rods exactly next to the thread that has already been warped, and avoid overlappings; they may, therefore, have to interrupt their work in order to make the necessary adjustments, especially when the operator is not skillful.

Whenever a new ball must be used, its end is simply twisted to the end of the old one; likewise when a thread breaks, *nabha't*. If a thread of another color must be worked into the warp, or else one which is *opa't di nati'lup* (see *supra*), for instance, for warping stripes, it is merely twisted to the last thread of the lower chain near the *hagipi'lan*, that is to say in that part of the warp which cannot be woven anyway, so that no defect in the textile will appear.

During the warping operation the *tubo'ngan* rod serves as heddle-rod instead of the *punggul-u'nan* which is properly the heddle-rod; obviously, heddling is easier when the thread that must catch the even threads of the warp can run, to and fro, over a rod that has a larger diameter.

All odd threads pass above the *punggul-u'nan* rod (which, after the warping operation, will be exchanged with the *tubo'ngan*): they are called *bini'tag*. Those that pass under that rod, the even threads, are called *ginu'l-un*. The threads on the *lolota'n* are said to be *mili'bod* (stem *li'bod*, conveys the idea of winding a string or a rope around something). The lower chain is called *mundalo'm*, i.e., the one that runs underneath.

8. MUN-ABO'L, WEAVING

The warp being wholly set, operator B removes the threads that are knotted to the *topo'ng* and twists them to the first and second thread of the warp; then she removes the *topo'ng* strings, which are not needed any more and which would hinder weaving.

Operator A interchanges the *tubo'ngan* rod with the *punggul-u'nan* rod using thereto a third rod; then, with the help of operator B, she carefully adjusts and tightens the chain between the two halves of the *hagipi'lan*, adjusts also all the rods and warp threads especially where they encircle the *lolota'n*; she then starts weaving.

She moves the *tubo'ngan* toward the *punggul-u'nan*; so she obtains a gape, *ta'kang*, in front of the *punggul-u'nan*, she inserts the sword, *ibu'dunay bali'ga*, in the gape, moves it toward the *hagipi'lan* and makes it enlarge the gape and raise the *bini'tag* threads down to the *hagipi'lan* or, later, to the last pick. Then she makes the sword stand in the gape and shoots the shuttle, *biki'tan*. To shoot a thread through the gape is called *paka'n*, lit. to feed; the thread shot through a gape obtained by the *tubo'ngan* is called *linno'ng*. After having adjusted the thread, she beats it up with the sword, *bodbodo'na*.

The operator then moves the *tubo'ngan* toward the *lolota'n*, with the right hand pushes it as strongly as she can above the *lolota'n*, at the same time straightening her body a little to distend the chain; with her left hand she raises the *punggul-u'nan* and consequently all the *ginu'l-un* threads, she inserts the sword, stretches the chain, *mumpona'd*, by bending her body backward, makes the sword stand in the gape (see Fig. I), shoots the shuttle from the left, adjusts the thread, which is now called *tina'g-e*, the raised one, and beats it up with the sword.

These are the two operations, which she has to repeat until the cloth is woven. However after she has beaten up the second pick, she inserts a small angular rod, *la'lag*, and carefully adjusts it making it run parallel to the *bagipi'lan* and exactly perpendicular with the warp threads; before she goes on alternately shooting her *linno'ng* and *tina'g-e* threads, she knots the loose end of the first pick to the last thread of the warp, or else works it in with her fingers.

As the weaving proceeds, the fabric gradually approaches the *lolota'n*. She has therefore time and again to move the *lolota'n* in the direction of the *ulu'wan*: with one hand she presses the warp threads in front of the *lolota'n* downward and with the other hand she pushes the *lolota'n* upward, *lonngo'na*. As the fabric continually grows, there comes a time when her shooting operations become difficult; she then unties the *bagipi'lan* and pulls the whole chain toward her, so that the woven fabric will become a part of the *mundalo'm* chain, and after some time reach from below the *ulu'wan*, pass around it and finally reach the *lolota'n*. Then the operator has to stop: a small part of the warp can't be woven, it is called the *bu'y-ut*.

If the textile she has woven needs to be fringed, for example a geestring or a hip bag, she cuts the *bu'y-ut* at some distance from the last and from the first pick, and uses these unwoven ends to twist the fringes. In the other alternative, she cuts off the entire *bu'y-ut*, makes the hem, *lupita'na*, and sows it, *kugu'tana*.

In former times the Ifugaw made their needles, *ta'nut*, from bamboo strips; to attach the thread to the bamboo splinter they masticated and rubbed its end to separate the fibres from each other; then they twisted a double thread, *tanta'n*, to the fibres; finally they twisted an ordinary single thread, *indame'*, to the *tanta'n* double one (see Fig. VIII).

Whenever the weaver wishes to stop weaving, she rolls up, *ludu'nona*, the whole thing, fabric, warp and rods, beginning with the *bagipi'lan*, ending with the *ulu'wan* and winding the *kala'big* around her loom.

The foregoing is a description of the simple weaving process to obtain a textile without designs; we shall describe the more complicated processes in the course of our descriptions of the various Ifugaw textiles.

Whenever the operator has some difficulty to raise her threads, because

they ceased to be smooth, she rubs the warp with some wax, *li'lin*.

II. TEXTILES AS WOVEN IN KIANGAN

The Ifugaw of Kiangan weave blankets, geestrings, skirts, upper garments, belts, hip and hand bags. After having removed the fabric from the loom, they do the finishing work: they join pieces, twist fringes, make hems, embroider as required by the particular textile they may have woven and in accordance with traditional patterns. A number of textiles have not only embroidered designs but also woven designs. Since these are obtained in two different manners, i.e., by raising design heddles and by dyeing, we have to classify the various textiles under two headings. Our description will keep to the following subdivisions:

A. Textiles without dyed designs:

1. Blankets:
 - a. *Ga'mong* Blankets
 - b. *Baya'ong* Blankets
 - c. *Ha'pe* Blankets
 - d. *Kinto'g* Blankets
2. Geestrings:
 - a. *Binubla'n* Geestrings
 - b. *Tina'nmong* Geestrings
 - c. *Pini'wa* Geestrings
3. Skirts:
 - a. *Inggalgele'tget* Skirts
 - b. *Intinlu'* Skirts
 - c. *Indinwa'* Skirts
4. Upper Garments or *La'mma*
5. Belts: *Ma'yad*
6. Bags:
 - a. *Pinu'hba* Hip Bags
 - b. *Amba'yong* Hip Bags
 - c. *Libu'tan* Hand Bags

B. Textiles with Dyed Designs

1. Dyeing Process
2. *Inla'dang* Blankets
3. *Gami't* Skirts
4. *Pini'wa* Geestrings
5. *Kupi'ling* and *Taga'ktak* Geestrings.

A. Textiles Without Dyed Designs

1. Blankets

All blankets are made of at least three pieces, each piece being approximately as wide as the *ulu'wan* and *bagipi'lan* rods allow. The middle pieces are called the body of the blanket, *ado'lna* (lit., its body); they are two if the blanket is made of four pieces. The side pieces are called *bali'ngbing*; a narrow band with fringes, borders the width of the blanket on both sides (except with the *kinto'g* blankets), which is separately woven and is called *talun'gtung*. The right side is called the blanket's back, *odo'gna* (lit., its back), the reverse side is the blanket's stomach, *putu'na* (lit., its stomach).

a. *Ga'mong* Blankets

Ga'mong blankets are specifically blankets for the dead. Corpses, before they are buried, are enveloped in at least two blankets: the outer one should be a *ga'mong*. The relatives of the deceased, if they happen to have no *ga'mong* in reserve, will do all that they can in order to secure one and, eventually, pay a high price for it. If they happen to have one ready made or can buy one before the corpse is put on the death chair, they fold it nicely and put it on the seat of the death chair.

It is made of four pieces, two middle pieces, *ado'lna*, two *bali'ngbing*, and two border pieces, *talun'gtung*. All of them are very loosely woven, *ugge' nahodho'd*, for the operator does not well beat up the picks, in order to save some yarn; moreover, one of the *bali'ngbing* is very loosely sewn to the middle piece, because it is torn off before they move the corpse thru the opening into the grave. They do so, not exactly because they wish to save a part of the textile, but to prevent the other dead buried in the same grave from being jealous; if they should be displeased, they may molest the living in one or another way.

Warping of the two middle pieces, *ado'lna*, its body.²

The operators' yarn is double-threaded; they use black, white and red balls. The distance between the *ulu'wan* and *bagipi'lan* rods is about three meters; hence the blanket will have a length of approximately 2.70 m. The warp threads are wound as follows:

2) Our descriptions, in which we list definite numbers of threads and well determined combinations of stripes formed either by the warp or by the weft, should not be understood as if all textiles, of whatever kind they may be, were uniformly woven, in all cases and in all places, in exactly the same manner as we have described them. The weavers' preferences will reduce or increase the number of threads, stripes, designs; still, all that they weave will remain characteristically "ifugaw", and will be woven in the way we put it with but little difference.

8 black *bini'tag* threads alternating with 8 black *ginu'l-un* threads ;
 6 white *bini'tag* threads alternating with 6 black *ginu'l-un* threads ;
 91 white *bini'tag* threads alternating with 90 white *ginu'l-un* threads ;
 6 black *ginu'l-un* threads alternating with 6 white *bini'tag* threads ;
 8 black *ginu'l-un* threads alternating with 8 black *bini'tag* threads ;
 8 white *ginu'l-un* threads alternating with 8 white *bini'tag* threads ;
 8 black *ginu'l-un* threads alternating with 8 black *bini'tag* threads ;
 6 white *ginu'l-un* threads alternating with 6 black *bini'tag* threads ;
 91 white *ginu'l-un* threads alternating with 90 white *bini'tag* threads ;
 6 black *bini'tag* threads alternating with 6 white *ginu'l-un* threads ;
 3 white *bini'tag* threads alternating with 3 white *ginu'l-un* threads, which will form a 6 and 6 stripe when joined to the second middle piece, whose threads will be warped in inverted order.

Weaving of the middle pieces.

Right above the two initial picks and the small *la'lag* rod (see p. 8), the operator weaves the *pa'gpag* design, which is composed of the *bini'lgí* design and the *binongo'gan* design with its head, *u'luna*, and its teeth, *bab-a'na*, (see Fig. IX)

The term *pa'gpag* conveys the idea of what has been repeatedly beaten with a stick (*mumpa'gpag*, to beat repeatedly with a small stick, *pagpa'gan*, to beat something, for ex., a gong, a board, repeatedly with a stick).

The term *binongo'gan* is composed of the stem *bo'ngog*, a kind of mole-cricket, the infix *in*, and the suffix *an*, conveying the idea of similarity and plurality, respectively; consequently this design could be called the mole-cricket design.

The term *bini'lgí* is composed of the stem *bu'lgí*, which conveys the idea of deviation, and the infix *in* conveying the idea of plurality. The term is mostly applied to rice ears that bend on their stalks, or to oblique lines. The design would therefore infer the idea of 'bending lines'.

To obtain this design the operator has to heddle a number of sets of warp threads. She slowly inserts a pointed rod in the chain at a short distance from and behind the *punggul-u'nan*, in order to be able to lift up all the warp threads she wants to raise; she helps the action of the rod with the fingers of her left hand. Then she raises the rod and in the gape so obtained she inserts a double (white-and-black) thread by means of another round rod. Thus far she has separated the set of threads for one design heddle, *li'hba*. After that, she first removes the pointed rod and slowly inserting it again she makes it loop the white-and-black thread; i.e., she takes up with her pointed rod the white-and-black thread (the *gu'l-un* or heddle thread) every time she meets a warp thread that is raised by the round rod, taking care that her pointed rod passes above the first raised warp thread under the *gul-u'n* thread from behind, above the second raised warp thread, under the

gul-u'n thread from in front of it, above the third raised warp thread, under the *gul-u'n* thread from behind it, and so forth, until she has looped the whole set of threads. Finally she knots both ends of the white-black *gul-u'n* thread to her rod and removes the other one.

She repeats the same operation as many times as she needs a different set of threads to be raised for her design. However, if a particular set of threads must be raised only a few times for her design, she does not give that set a special heddle-rod, that is, she will raise that set only when needed by inserting a small rod as she did in the heddling operation described above; obviously, she wants to avoid having too many heddle-rods.

When all her sets of threads are hedded, she begins weaving her textile with its traditional designs.

Weaving a *ga'mong* blanket, she must at once begin making the *pa'gpag*, namely its *bini'igi*. This design is formed by the weft-threads. Four different sets of warp threads must be raised (see Fig. X, sets ABCD), which she takes from the *bini'tag* as well as from the *ginu'l-un* threads; therefore the main *punggul-u'nan* and the main *tubo'ngan* are not needed, since she has changed the initial warp combination (of *bini'tag* threads always alternating with *ginu'l-un* threads) by her four heddles.

The operator raises one *punggul-u'nan di li'hba*, in the gape so obtained she inserts a smaller sword, moves it toward her until it is blocked by the main *punggul-u'nan* and makes it stand; in the gape formed in front of the main *punggul-u'nan* she inserts her main *bali'ga* and moves it toward her and makes it stand; she shoots a special shuttle through the gape, i.e., a shuttle on which a double black thread is wound, the warp threads being also double. This first pick she beats up a little with her sword. The following picks are obtained in the same manner, but by raising every time another set of threads; however if the *punggul-u'nan di li'hba* happens to be the second, third, or fourth of the series, the small *bali'ga* which she inserted in the gape cannot be moved as far as the main *punggul-u'nan*, for it is blocked by the first (eventually by the two, three first) *punggul-u'nan di li'hba*; but a gape will be formed in front of the first *punggul-u'nan di li'hba*, in which she then will insert another small *bali'ga* (or a small *tubo'ngan*) to obtain a gape in front of the main *punggul-u'nan*.

To weave the *binongo'gan* design the process is the same; in fact it is always the same for all kinds of woven designs, whether they be formed by the warp or by the weft threads; we, therefore, shall not repeat the description of the process; it is clear, however, that the skill of the operator plays its part in the operation, for a less skillful weaver may have to use one or two more small swords in order to transfer the gape to the front of the main *punggul-u'nan*, whenever the set of threads she had to raise is raised by one of the last *punggul-u'nan di li'hba* of a series of eleven or more. Small swords can also be called *bu'klit*.

There are six sets of threads to be raised for the *binongo'gan* (see Fig. XI, sets ABCDEF) design and its teeth, *bab-a'na* (see Fig. XI); furthermore, two sets more for its head, *u'luna* (see Fig. XI sets GH), which, however, will not be given a *punggul-u'nan di li'hha*.

The design is also obtained by the weft threads. The heddle threads are all taken from the *bini'tag* warp threads. For this reason there are four successive operations. First she raises one design heddle, transfers the gape to the front of the main *punggul-u'nan*, as described above, inserts her main *bali'ga*, moves it toward the *bagipi'lan*, makes it stand in the gape, shoots a shuttle which has a quadruple back thread through the gape, and beats up the pick a little. Then she removes the *bali'ga*, raises the main *punggul-u'nan* (which raises all the even threads of the wrap, that is, all the *ginu'l-un*), inserts again her main *bali'ga*, moves it towards herself, makes it stand and shoots a shuttle which has a double white thread through the gape, and beats up the pick. This pick (a double white thread, not a quadruple one) is hidden by the quadruple thread where the design is formed and can only be seen at the wrong side of the fabric; on the other hand, it is seen on the right side of the fabric where the design is not formed, while then on the wrong side only the quadruple black thread is seen. Then she raises another design heddle and repeats the first operation. The fourth operation is the same as the second, except that the gape is obtained by raising all the *bini'tag* warp threads, namely by moving the main *tubo'ngan* down to the main *punggul-u'nan*.

The *pa'gpag* design is made over the whole width of the chain; consequently it runs through the longitudinal stripes of the warp. The wrong side displays the negative of the design. When the design is entirely woven, the operator continues weaving, always using the shuttle with a double white thread, making her gapes alternatively by raising the *punggul-u'nan* and by moving downward her *tubo'ngan*. She makes a second but inverted *pa'gpag* design for the other side of the blanket. Since the chain is double, she immediately weaves a third *pa'gpag* and finally toward the end a fourth inverted *pa'gpag*. She will then have the two pieces for the *ado'lma* of her *ga'mong* blanket.

The black stripes³ at the side of the speckled stripes are called *wi'ngi* (lit., the siding stripe; *wi'ngi* with verbal suffix *on*, *wingi'yon*, to turn, say, the head, sideways). The speckled stripes are called *gino'lya* (stem *go'lya*, specks, with infix *in* conveying the idea of plurality; *gino'lya*, speckled). The complex of the black and speckled stripes (at both sides of the fabric) or the complex of the speckled, black, white, black and speckled stripes (in the middle

3) The black stripes are not really black, but speckled, since the threads of the weft are white; but in comparison with those that are called *gino'lya* (speckled stripes) they are so to say black, the difference between the two kinds being well marked.

of the fabric) is called *ha'bak*, this term being applied to broad stripes, whether they are composed of one or more sub-stripes, or not.

The fact that the weaver does not strongly beat up her picks causes the fabric to distend laterally at both its sides, if she is not skilled and time and again allows her picks to be a little too long; hence the design may appear to be deprived of its symmetry, *napae'wet*, especially at its sides, where it is manipulated when the operator sews the various pieces of the blanket together.

Warping of the two *bali'ngbing* or side pieces.

All the threads are double except the black ones of the design stripes, which are quadruple, as we shall indicate.

6 black *bini'tag* threads alternating with 6 black *ginu'l-un* threads

6 red *bini'tag* threads alternating with 6 red *ginu'l-un* threads

6 black *bini'tag* threads alternating with 6 black *ginu'lun* threads

5 times { 6 red *bini'tag* threads alternating with 6 red *ginu'l-un* threads
1 black *bini'tag* thread and 1 black *ginu'l-un* thread
11 quadruple black *bini'tag* threads alternating with 10 double white *ginu'l-un* threads
1 black *ginu'l-un* thread and one black *bini'tag* thread
6 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads
6 black *ginu'l-un* threads alternating with 6 black *bini'tak* threads

36 red *ginu'l-un* threads alternating with 35 red *bini'tag* threads

3 times { 6 black *bini'tag* threads alternating with 6 black *ginu'l-un* threads
6 red *bini'tag* threads alternating with 6 red *ginu'l-un* threads
1 black *bini'tag* thread and 1 black *ginu'l-un* thread
11 quadruple black *bini'tag* threads alternating with 10 double white *ginu'l-un* threads
1 black *ginu'l-un* thread and 1 black *bini'tag* thread
6 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads

36 black *ginu'l-un* threads alternating with 35 black *bini'tag* threads

6 red *bini'tag* threads alternating with 6 red *ginu'l-un* threads

1 black *bini'tag* thread and 1 black *ginu'l-un* thread

11 quadruple black *bini'tag* threads alternating with 10 double white *ginu'l-un* threads

1 black *ginu'l-un* thread and 1 black *bini'tag* thread

6 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads

6 black *ginu'l-un* threads alternating with 6 black *bini'tag* threads

6 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads

6 black *ginu'l-un* threads alternating with 6 black *bini'tag* threads

Weaving of the *bali'ngbing*.

The operator uses only one shuttle with a double black thread. The designs, which she forms on all the stripes, which are warped with quadruple

black *bini'tag* and double white *ginu'l-un* threads, are obtained by raising the quadruple black threads together with all the *ginu'l-un* threads. The design is, therefore, formed by the warp threads. Normally such stripes would be speckled, because of the white threads that alternate with the thick black ones (in fact they are speckled stripes on the wrong side of the fabric), but the quadruple black threads being raised three times consecutively, (the thinner white ones only once by the *punggul-u'nan*) hide the white specks, which appear only where the black threads are not raised.

The operator heddles six sets of quadruple black threads. There are 11 quadruple black threads; the first heddle raises threads 1, 3, 5, 7, 9, and 11; the second, threads 2, 4, 6, 8, and 10; the third, 3, 5, 7, and 9; the fourth, threads 4, 6, and 8; the fifth, threads 5 and 7; the sixth, thread 6.

When raised in this order and then in inverted order (except the sixth which is raised only once) these heddles form the *linu'bhong* design, having more or less the shape of an Ifugaw mortar or trough in which rice is pounded (see Fig. XII).

Besides the *linu'bhong* designs a number of other ones are usually made in such stripes, for which the operator will have to raise other sets of threads, but she does not give them special heddle rods, but will just raise them by means of a small sword, *bu'klit*, as already explained above.

The various designs are the following (see Fig. XII).

Linu'bhong (stem *lubo'ng*, mortar, infix *in* conveying the idea of similarity, and reduplication of *b*, conveying a diminutive idea to the word), a design like a small mortar;

Tina'ggū (stem *ta'gu*, man, infix *in* and reduplication of *g*), a design like a little man; also with double reduplication: *tinata'ggū*;

Ini'ddo (stem *i'do*, python, infix *in*, which is prefixed because the stem begins with a vowel, and reduplication of *d*), python design;

Linu'bhong an napaya'kan, mortar design provided with wings (*pa'yak*, wing, with prefix *na* and suffix *an*, conveying the idea of 'provided with');

Inu'log (stem *u'log*, snake, and prefixed infix *in*) snake design; also with reduplication *inul-u'log*;

Tinétete'te (stem *té'te*, ladder, infix *in* and reduplication *tete*), ladder design;

Ina'ttip (stem *ati'p*, a kind of edible beetle, prefixed suffix *in* and reduplication of *t*), beetle design;

Binanni'ya (stem *bani'ya*, lizzard, infix *in* and reduplication of *n*), lizzard design;

Hiniki'tan (stem *hi'kit*, net to catch bats, with suffix *an* means, shuttle; and infix *in*), shuttle design;

Hinolho'lgat (stem *ho'lgat*, barb of spear blade; *hino'lgat*, a kind of spear the blade of which is provided with three or more pairs of barbs, reduplication *bol*), spear-head-with-barbs design;

Inan-a'ntak (stem *a'ntak*, species of beans, prefixed suffix *in*, reduplication *an*) beans design ;

Kinatiba'nglan (*katiba'nglan*, tree fern, with infix *in*), the design is a number of lozenge figures, more or less like those on the stem of tree ferns.

Each design is usually separated from the next one by 2 or 3 transversal black stripes, *holda'k* (lit., partition), obtained by raising the first heddle rod (which raises threads 1, 3, 5, 7, 9 and 11). When the operator has finished weaving the whole design, she shoots her shuttle a few times (for ex., 5 times), raises the said heddle together with the main *punggul-u'nan*, and shoots again her shuttle a few times, so that speckled lines separate *holda'k* from *holda'k*, and from the next design.

Warping the *talungtung*, the band to be sewn to the two sides of its width.
 10 black *bini'tag* threads alternating with 10 black *ginu'l-un* threads
 6 red *bini'tag* threads alternating with 6 red *ginu'lun* threads
 8 black *bini'tag* threads alternating with 8 black *ginu'l-un* threads
 6 red *bini'tag* threads alternating with 6 red *ginu'l-un* threads
 8 black *bini'tag* threads alternating with 8 black *ginu'l-un* threads
 14 black *bini'tag* threads alternating with 13 white *ginu'l-un* threads
 8 black *ginu'l-un* threads alternating with 8 black *bini'tag* threads
 6 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads
 8 black *ginu'l-un* threads alternating with 8 black *bini'tag* threads
 6 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads
 10 black *ginu'l-un* threads alternating with 10 black *bini'tag* threads

Weaving the *talungtung*.

It is the same as that of the *bali'ngbing* pieces, but the operator, after she has shot her shuttle a few times, inserts into the left side of the warp a small white fringe and, after a few picks, another one, then at an interval of about two inches a red fringe, and again, after a few picks, another red one. So she borders the *talungtung* with fringes, *ha'bong* (lit., flower of narra tree), in pairs. She takes her threads for the fringes from the unwoven part of other pieces of the blanket: the white ones from the *bu'y-ut* of the *ado'lna*, the red ones from the *bu'y-ut* of the *bali'ngbing*; she cuts these unwoven warp elements into equal lengths of about 2 inches; she folds three or four double-threads, twists the folded end a couple of times and inserts the twisted end of it into the warp.

The two selvaged pieces of the *ado'lna* are joined together by an oblique or an overcasting stitch *ku'gut* (see Fig. XIII, e), likewise the two *bali'ngbing* with the *ado'lna*. The thread is not drawn tight, when that *bali'ngbing* which must be torn off at the grave is joined, and stitches are distanced.

Before joining the *talungtung* to the *ado'lna* and *bali'ngbing*, the seamstress makes the necessary double foldover and works it with a hemming stitch,

also called *ku'gut*. The *talungtung* are joined to the hem by a loose and distanced overcasting stitch, since these will also be torn off from the *ga'mong*.

b. *Baya'ong* Blankets

Baya'ong blankets are, theoretically at least, the blankets of the wealthy. They have the same value as the *ga'mong* blankets. Besides being used properly as blankets during the night, they serve as an upper garment, occasionally as a turban, mostly for older people, on festival days such as marriage feasts. Besides, custom requires that shamans wear a blanket while they perform their rites; the younger shamans wear usually a *ha'pe* blanket (see *infra*) while the older ones a *baya'ong* blanket, if they have one.

Warp of the *ado'lna*

All warp threads are double except the black one for the design stripes.

7 black *bini'tag* threads alternating with 7 black *ginu'l-un* threads

6 red *bini'tag* threads alternating with 6 red *ginu'l-un* threads

2 times { 1 black *bini'tag* thread and one black *ginu'l-un* thread
11 quadruple black *bini'tag* threads alternating with 10 double white *ginu'l-un* threads
1 black *ginu'l-un* thread and 1 black *bini'tag* thread
6 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads
6 black *ginu'l-un* threads alternating with 6 black *bini'tag* threads
7 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads

35 black *bini'tag* threads alternating with 35 black *ginu'l-un* threads

6 red *bini'tag* threads alternating with 6 red *ginu'l-un* threads

6 black *bini'tag* threads alternating with 6 red *ginu'l-un* threads

6 red *bini'tag* threads alternating with 6 black *ginu'l-un* threads

3 times { 1 black *bini'tag* thread and 1 black *ginu'l-un* thread
11 quadruple black *bini'tag* threads alternating with 10 double white *ginu'l-un* threads
1 black *ginu'l-un* thread and 1 black *bini'tag* thread
6 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads
6 black *ginu'l-un* threads alternating with 6 black *bini'tag* threads
7 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads

35 black *bini'tag* threads alternating with 35 black *ginu'l-un* threads

2 times { 6 red *bini'tag* threads alternating with 6 red *ginu'l-un* threads
6 black *bini'tag* threads alternating with 6 black *ginu'l-un* threads
6 red *bini'tag* threads alternating with 6 red *ginu'l-un* threads
1 black *bini'tag* thread and 1 black *ginu'l-un* thread
11 quadruple black *bini'tag* threads alternating with 10 double white *ginu'l-un* threads
1 black *ginu'l-un* thread and 1 black *bini'tag* thread

6 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads

7 black *ginu'l-un* threads alternating with 7 black *bini'tag* threads.

Weft of the *ado'lina*

It is the same as that of the *bali'ngbing* of a *ga'mong* blanket; however no other designs than the *linu'bhong* (separated by one or two *holda'ke*) are woven.

Warp and weft of the *bali'ngbing*

Both the warp and the weft of the *bali'ngbing* pieces are the same as those of the *bali'ngbing* of a *ga'mong* blanket, but usually the operator weaves a greater variety of designs (see Fig. XII).

Warp and weft of the *talungtung*

Both the warp and weft of the *talungtung* are the same as those of the *talungtung* of a *ga'mong* blanket; but the fringes are not inserted by pairs: fringes are inserted one inch apart, the red ones alternating with the white ones.

c. *Ha'pe* Blankets

Ha'pe blankets, though they have but half the value of the *baya'ong*, were still regarded as the blankets of the wealthy in former times. Their use is the same as that of the *baya'ong*; however, they are worn more frequently by young than by old people.

Since *ha'pe* blankets are made of but three pieces, which are all alike, the term *bali'ngbing* for the 2 side pieces is usually not used: all three are called *ado'lina*.

Warp, weft of the *ado'lina* and *talungtung*.

All threads are double.

200 black *bini'tag* threads alternating with 200 black *ginu'l-un* threads

36 white *bini'tag* threads alternating with 35 white *ginu'l-un* threads

200 black *ginu'l-un* threads alternating with 200 black *bini'tag* threads.

No designs are woven into the blanket. Only one shuttle with a double black thread is used.

The *talungtung* is the same as that of the *baya'ong* blankets, but it is sometimes sewn to the hem with a white and red thread alternatively.

The pieces of the *ado'lina* are joined together by passing the needle through both pieces with thread underneath the needle. The design so obtained is called *inolo'ng* (stem *olo'ng*, nose, and prefixed infix *in* conveying the idea of similarity), nose-like design (see Fig. XII a, b, c). The pieces of a *baya'ong* blanket may eventually be joined together with such a stitch.

d. *Kinto'g* Blankets

Kinto'g blankets are rarely woven at present, but in former times, when the Ifugaw could not buy their yarn from outsiders, they were most com-

mon. The term *binkintoga'n* (prefix of units *bin*, stem *kinto'g* and suffix *an*) is still in use to-day; it is applied to pigs and means 'a pig exchangeable for one *kinto'g* blanket,' although at present no one would sell a pig for such a blanket. The word is therefore used in the meaning of an ordinary pig.

Blankets used to carry the baby in are nowadays often *kinto'g* blankets; when they are made and used for that purpose they are called *oba'n*.

A *kinto'g* blanket is made of three pieces like the *ha'pe*; it has no *talung-tung*; its yarn is double, that of the shuttle always white, that of the warp as follows:

5 white *bini'tag* threads alternating with 5 white *ginu'l-un* threads
 25 black *bini'tag* threads alternating with 25 black *ginu'l-un* threads
 10 white *bini'tag* threads alternating with 10 black *ginu'l-un* threads
 226 white *bini'tag* threads alternating with 225 white *ginu'l-un* threads
 10 black *ginu'l-un* threads alternating with 10 white *bini'tag* threads
 25 black *ginu'l-un* threads alternating with 25 black *bini'tag* threads
 5 white *ginu'l-un* threads alternating with 5 white *bini'tag* threads.

The speckled stripes are called *gino'lya*; the wide white middle stripe together with the speckled stripes at its sides are called *ha'bak*; the black stripe at the side of each speckled stripe is called *wi'ngi*.

The pieces are joined together with an oblique or an overcasting stitch (see Fig. XIII, e); hemming is done with the ordinary hemming stitch.

2. Geestrings

The Ifugaw of Kiangon weave six kinds of geestrings: three with and three without dyed designs. The former, since the designs are obtained by a dyeing process, will be described *infra*.

a. *Binubla'n* Geestrings

A *binubla'n* geestring is about 2.50 m. long and some 25 cm. wide. It has a large red stripe in its middle and for this reason it is called *binubla'n*. The term, indeed, is composed of the stem *bu'bul*, enemy, the infix *in* and the suffix *an*, which draws the accent and causes the syncopation of the second *u*, a pepet vowel; literally *binubla'n* means "the be-enemy-ed". Red is the color of the Sun deity, who is the god of war; plants with red leaves are used in the sacrifices offered to the Sun deity, likewise a cock with reddish feathers is killed in headhunting rites; moreover, red is the color of blood. We would therefore think that the term *bu'bul*, "enemy", is but a substitute for *i'ngit*, "red"; so, instead of calling the geestring *iningi'tan* they call it *binubla'n*, just as in latin poetry the word Mars is used for war, Ceres for wheat, Venus for love.

The term *mabinubla'n* is applied to a middle sized pig, which could be bartered for one *binubla'n* in former times.

Warp of *binubla'n* geestrings; all double threads.

10 black *bini'tag* threads alternating with 10 black *ginu'l-un* threads
 1 white *bini'tag* thread, 1 red *ginu'l-un* thread, 1 white *bini'tag* thread
 70 black *ginu'l-un* threads alternating with 70 black *bini'tag* threads
 1 yellow *ginu'l-un* thread and 1 yellow *bini'tag* thread
 1 red *ginu'l-un* thread and 1 red *bini'tag* thread
 1 black *ginu'l-un* thread, 1 black *bini'tag* thread and 1 black *ginu'l-un* thread
 1 red *bini'tag* thread and 1 red *ginu'l-un* thread
 1 yellow *bini'tag* thread and 1 yellow *ginu'l-un* thread
 1 black *bini'tag* thread, 1 black *ginu'l-un* thread and 1 black *bini'tag* thread
 1 white *ginu'l-un* thread
 1 black *bini'tag* thread, 1 black *ginu'l-un* thread and 1 black *bini'tag* thread
 18 red *ginu'l-un* threads alternating with 17 red *bini'tag* threads
 1 black *bini'tag* thread, 1 black *ginu'l-un* thread and 1 black *bini'tag* thread
 1 white *ginu'l-un* thread
 1 black *bini'tag* thread, 1 black *ginu'l-un* thread and 1 black *bini'tag* thread
 1 yellow *ginu'l-un* thread and 1 yellow *bini'tag* thread
 1 red *ginu'l-un* thread and 1 red *bini'tag* thread
 1 black *ginu'l-un* thread, 1 black *bini'tag* thread and 1 black *ginu'l-un* thread
 1 red *bini'tag* thread and 1 red *ginu'l-un* thread
 1 yellow *bini'tag* thread and 1 yellow *ginu'l-un* thread
 70 black *bini'tag* threads alternating with 70 black *ginu'l-un* threads
 1 white *bini'tag* thread, 1 red *ginu'l-un* thread and 1 white *bini'tag* thread
 10 black *ginu'l-un* threads alternating with 10 black *bini'tag* threads.

Weft of *binubla'n*.

After having shot her shuttle a few times (enough to have woven some 5 mm. above the *la'lag* rod), the operator makes the *kalu'mbing* horizontal stripe, intertwining with her fingers 7 double picks with the warp threads (see Fig. XIX).

The yarn for her picks are taken from balls with quadruple red threads and double white threads. They must be as long as the width of the geestring when folded plus an allowance of some 8 to 10 cm. for a fringe on both sides. She first twists each quadruple or double thread to form one thread, then makes each of them double by folding them.

The first pick is formed by intertwining the two ends of such a double red thread with every four warp threads, *nibidi'bid*; the five following picks are made with such a double red and a double white thread, each pick being double-twined with every four warp threads, *nibu'klub* or *nibalab-i'we*, so that some sort of a checker is formed; the seventh pick is like the first. The two ends of each double pick that reach beyond the width of the geestring are knotted on both sides against the first and the last warp thread, all loops having been cut through. The fringe-ends of the *kalu'mbing* are called *ngu'me*.

When this *kalu'mbing* is made, the operator continues weaving by shooting her shuttle with a black thread and beating up every pick with her *bali'ga*, until the required length is woven; but before she finishes she makes another *kalu'mbing* with only 5 or 6 picks.

In cutting the *bu'y-ut* (the portion of the warp that can't be woven) she cares that the multicolored warp threads may serve on both ends of the geestring as a loose fringe, *ngu'me*.

The geestring is ordinarily put on in the way described by Father Morice Vanoverbergh in his "Dress and Adornment in the Mountain Province of Luzon."⁴ The length of an Ifugaw geestring permits that it be wound twice or thrice around the body and that both its ends, which hang loose in front and at the back, reach the knees. The loose end in front is called *dayu'de*, the one at the back, *iwi'tan*, i.e., the tail.

The following decorative designs are stitched on the *dayu'de*: The zigzag design, *tiktik-u'*, made by a chain stitch over the whole width of the fabric above the *kalu'mbing* stripe, once with a double yellow and once with a double red thread (see Fig. XIV). The *tu'kkak* (*tuka'k*, a kind of frog, the reduplication of the *k* draws the accent on the foregoing syllable, it conveys the idea of plurality), the frog designs. The *tu'kkak* consists of several designs stitched, the one above the other, in the middle red stripe of the *dayu'de*; they are made with a double white, but thin, thread; the stitch is the same as that of the *tiktik-u'*. The designs are (see Fig. XV):

The long beans design, *inan-a'ntak*;

The little man design, *tina'ggü*;

The lying little man design, *binala'bag an tina'ggü* (lit., little man put in horizontal position);

The shuttle design, *hiniki'tan*;

The basket-like design, *binükubu'kup* (reduplicated stem *bu'kup* with infix *in*; *bu'kup* is a small more or less square bottomed and rectangular walled basket);

The knob-like design, *pina'ttit* (stem *pati't*, knob, with infix *in*, the reduplicated *t* draws the accent on the foregoing syllable); the design refers to the so-called knob of a gong, that is, a small wing shaped piece of wood attached to the string which passes through the two holes of the gong.

The edges of the *dayu'de* are decorated with the *kuti'lap* (see Fig. XIII, h). The seamstress stitches with a double red and a double yellow thread a series of triangles (button hole stitch) along both edges, five or six red ones alternating with five or six yellow ones.

The red stripe in the middle of the geestring is called *ha'bak*; the white warp thread over which the black threads of the weft pass on both sides of

4) See *Publ. Anthr. Conf., Univ. of America, Wash., D. C., Vol. I, No. 5, p. 186 and fig. 1 a, b, c, d.*

the *ha'bak* (separated however from the *ha'bak* by 3 black warp threads and the white-black-white threads, near the edges) are called *mata'na*, its (of the *ha'bak* or of the geestring) eyes; the complex of the narrow yellow and red stripes at the side of the *mata'na* and the side of the wide black stripes are called *wi'ngi*.

b. *Tina'nmong* Geestrings

The *tina'nmong* is the geestring of the poor, at least theoretically; practically nobody in Kiangan wears such a geestring at present. It has a length of about 2 meters and it is not wider than 15 cm. It is called *tina'nmong* because it is completely white, that is, the processes of warping and weaving with a double white thread are carried through from beginning to end: the stem *ta'nmong* of *tina'nmong* conveys the idea of carrying through an action. Usually the weaver makes a *kalu'mbing* horizontal stripe of 5 double red picks at the end of its *dayu'de* and *iwi'tan*, a little above its short fringes, *ngu'me*.

c. *Pini'wa an Nili'hba* Geestrings

The *pini'wa an nili'hba* is but a richer form of the *binubla'n* geestring, because it has in its *dayu'de* and *iwi'tan* a design stripe of the same kind as the design stripes of the *bali'ngbing* of a *baya'ong* blanket.

The warp is the same as that of the *binubla'n*, except that the operator begins her warping as follows:

10 black *bini'tag* threads alternating with 10 black *ginu'l-un* threads
 1 red *bini'tag* thread and 1 white *ginu'l-un* thread (for a *mata'na* stripe)
 1 white *bini'tag* thread, 1 red *ginu'l-un* thread and 1 white *bini'tag* thread (for a *mata'na* stripe);

She finishes her warping in the same manner but, of course, in inverted order. So there will be one *mata'na* stripe more near each edge of the fabric.

When the warp is completely set, she inserts the threads needed for her design stripe, namely 11 quadruple black threads alternating with 10 double white threads (the former *bini'tag*, the latter *ginu'l-un* threads). She twists these threads to other threads of the lower chain near the *bagipi'lan*, makes the black threads run under the *tubo'ngan* and above the *punggul-u'nan* (the two rods have not thus far been interchanged) and the white threads above the *tubo'ngan* and under the *punggul-u'nan* until both sets reach the *lolota'n*, beyond which she cuts them off and twists their ends to other threads of the warp. These twistings will not spoil the beauty of the textile, for the lower ones fall in the *bu'y-ut*, while the upper ones can be untwisted when she will have cut off all those inserted warp threads as soon as she will have woven the length of a *dayu'de*.

She raises her sets of threads for the designs by means of the *bukli't*. She works in the warp threads in the same manner for her design stripes

in the *iwi'tan*, however she cannot any more avoid spoiling somewhat the beauty of the fabric, because she has to twist her threads and at once inter-weave them; only their ends will fall in the *hu'y-ut*.

It is clear that the *dayu'de* and the *iwi'tan* will be a little wider than the body of the geestring and that irregularities appear where the *dayu'de* ends and the *iwi'tan* begins.

We cannot explain the term *pini'wa* (stem *pi'wa*, ?, infix *in*); seemingly the stem *pi'wa* is formed by the root *piw*; *pi'wit*, *pi'wi*, mean, crooked, askance, aslant, bent. The edges of a *pini'wa* blanket are crooked where the design stripes end, so that the meaning of "heddled (*nili'hba*) crooked" textile or geestring seems to be suggested. Inasmuch as the *pini'wa* proper is a geestring in which the designs are obtained by a complicated dyeing process, this *pini'wa an nili'hba*, i.e., this hedded *pini'wa* seems to be a suitable substitute of the older and genuine one.

3. Skirts

The Ifugaw of Kiangan weave and wear five kinds of skirts, generically called *ampu'yo* or *tolge'*, namely the *inggalgale'tget* (now out of fashion), the *intinlu'*, the *indinwa'*, the *gami't* (which we shall describe in the following section, since it belongs to that class of textiles in which the designs are obtained by a dyeing process) and the *ampu'yo an baya'ong*, which is not a skirt proper, but three pieces of *baya'ong* fabric (from the *bali'ngbing* of the *baya'ong* blanket) joined together with decorative stitches and embroidered like the *intinlu'* or the *indinwa'*; hence, we need not describe it.

a. *Inggalgale'tget* Skirts

The *inggalgale'tget* (reduplicated stem *gale'tget*, full of stripes, lines, with prefix *in—in* before *g* is pronounced *ing*), the skirt full of narrow stripes or, as it were, full of lines, is a short skirt which fails to reach the knees: it is made of two pieces of cloth joined together and is worn by women who work in the rice paddies; however, it is wholly out of fashion at present.

Warp and weft.

5 black double *bini'tag* threads alternating with 5 black double *ginu'l-un* threads
 8 white single *bini'tag* threads alternating with 8 white single *ginu'l-un* threads
 24 times { 4 black double *bini'tag* threads alternating with 4 black double
 ginu'l-un threads
 4 white double *bini'tag* threads alternating with 4 white double
 ginu'l-un threads
 4 black double *bini'tag* threads alternating with 4 black double *ginu'l-un* threads
 8 white single *bini'tag* threads alternating with 8 white single *ginu'l-un* threads
 5 black double *bini'tag* threads alternating with 5 black double *ginu'l-un* threads
 9 white single *bini'tag* threads alternating with 8 white single *ginu'l-un* threads.

Because the weaver often does not care to count her threads, some stripes are broader some narrower; the skirt is then said to be *napae'wet*, irregular.

She weaves her skirt with a double black thread.

She cuts the fabric in lengths of 1.20 m. Two pieces are joined together by their selvages with a stitch called *takdo'g* (see Fig. XIII, f, g), lit. standing. The edges that fray are overcast with a black and a red thread alternately. When the skirt is worn all stripes are horizontal.

b. *Intinlu'* Skirts

The *intinlu'* (stem *tulu'*, three, with prefix and infix *in*), the skirt made of three pieces, is typically Ifugaw.

Warp and weft:

10 white single *bini'tag* threads alternating with 10 white single *ginu'l-un* threads

9 or 10 times	{	11 black double <i>bini'tag</i> threads alternating with 11 black double <i>ginu'l-un</i> threads
		1 white single <i>bini'tag</i> thread and 1 white single <i>ginu'l-un</i> thread
		11 black double <i>bini'tag</i> threads alternating with 11 black double <i>ginu'l-un</i> threads
		4 white single <i>bini'tag</i> threads alternating with 4 white single <i>ginu'l-un</i> threads

11 white single *bini'tag* threads alternating with 10 white single *ginu'l-un* threads.

One shuttle with a double black thread is used for the weft.

The pieces are joined together with a *takdo'g* stitch: a few stitches with a black thread alternate with the same number of stitches with a white thread. This is the more decorative way to join pieces.

The upper and lower selvages are decorated by the *kuti'lap* design (see Fig. XIII, j): 6 or 7 triangles stitched with a red thread alternating with 6 or 7 triangles with a black thread (button hole stitch).

The edges that fray are hemmed and first sewn with a black and red thread alternately; then over the hem the *bambu'lud* (stem *bu'lud*, crest, with prefix *ban-n* before *b* is pronounced *m*-which seems to be an article) is embroidered: a series of blanket stitches; 2 inches with a red thread and 2 inches with a yellow thread, until the whole hem is so covered (see Fig. XIII, j).

c. *Indinwa'* Skirts

The *indinwa'* (stem *duwa'*, two, with prefix and infix *in*), skirt made of two pieces, is also typically Ifugaw; it is however less frequently woven, because it is shorter than the *intinlu'*, although quite longer than the *ingal-gale'tget* working skirt.

The *indinwa'* is warped with the same number of stripes and threads in

each stripe as the *intinlu'*, but all white threads are double; the fabric is wider, when weaving is completed, and the two pieces joined together make a skirt that is but a little shorter than the *intinlu'*.

Hemming and stitching are done in the same way as for the *intinlu'*, except that usually no *bambu'lud* is stitched over the hems.

4. Upper Garments or *La'mma*

The *la'mma* was formerly a woman's working-cloth, which she wore mostly during weeding and harvest times to protect her back against the strong rays of the sun and the pricks of the rice ears; to-day no one will think of weaving a *la'mma*, since upper garments can easily be bought from outsiders.

It is warped and woven with a double white yarn, usually *pol-o'g* (see p. 1). The length of the chain for one *la'mma* is approximately 1.25 m.; its width 25 cm.

After having shot her shuttle some 10 times, the operator weaves a small *binongo'gan* design (see p. 11), or rather the *binab-a'* (see Fig. IX), teeth-design (stem *bab-a'*, tooth, with plural infix *in*). She uses the *bu'kelit* rod or a small sword to raise the sets of threads forming that particular design; the yarn of her shuttle is black and of the same thickness as the white yarn of the warp; she shoots this shuttle but a few times. She weaves a second inverted *binab-a'* after having woven some two meters fabric, adds some ten white picks and removes the textile from its loom.

She cuts off the *bu'y-ut*, cuts the fabric into two equal lengths of approximately one meter and, after making the double foldover, makes a hemming stitch, using alternately a black and red thread.

Then she joins the two pieces by their selvages working them with *takdo'g* (standing) stitches, using again a black and a red thread alternately; however she leaves an unsewn opening in the middle, long enough to pass her head through: this opening is called *baga'ngna*, its (the cloth's) throat. Then she folds the cloth in such a way that one fold will be a little longer than the other, and overcasts the edges with a white thread, leaving the upper part on both sides unsewn, for the arms to pass.

5. Belts

Since Ifugaw women always make skirts of two or three pieces that are long enough to allow a wide overlapping when put on, they always cover their thighs in marching and in squatting or sitting posture; however, they keep usually the upper part of the skirt below the navel. So the navel is always bare and the whole abdomen protrudes above the skirt in case of pregnancy.⁶ Wearing their skirt in this manner forces the Ifugaw women

5) see Morice Vanoverbergh, *Dress and Adornment in the Mountain Province of Luzon*, *Publ. Anthr. Conf.*, Catholic University of Washington, D.C., Vol. I, No. 5, pp. 187, f.

to wear a supplementary girdle, which keeps it in place.

Any woven band may be used as a belt, *balko'*, provided it be wide enough, say some 20 cm., and long enough to wind it two times around the waist, that is above the hips but below the abdomen and lower than the skirt, so that some sort of a pouch is formed above it by the skirt, in which the women can put their hand bag.

Some use a geestring, a *binubla'n* or a *tina'nnong*, but in that case they twist the unwoven threads of the warp (*bu'y-ut*), intertwine them by pairs and sew red and yellow fringes, *talun'ngtung* or *ha'bong*, to them. Others buy red fabric from outsiders and stitch red and yellow fringes to the ends.

The Ifugaw belt proper is the *ma'yad*. Its warp is a chain of some 600 double black threads (301 *bini'tag* and 300 *ginu'l-un*). Warping a *ma'yad* belt is simple enough, but weaving it is most complicated because the operator has to form with her picks three times the *binolme'* design (see Fig. XVI), once near each end of the fabric and once in its middle; she has to raise 18 different sets of threads which must be heddlled permanently by means of the black-and-white *gu'l-un* and attached to 18 different heddle rods. Heddling itself is the more difficult because some of the threads of some sets to be raised must be taken from both the *bini'tag* and the *ginu'l-un* threads. Furthermore, the operator has to shoot five different shuttles, for the complex design has its red, yellow and black sub-designs, and the red and yellow threads are double or quadruple.

The complex *binolme'* design (stem *holme'*, which stem is not otherwise used than in composition with the infix *in*, as far as we know, and which seems to convey the idea of 'net-work') is composed of a series of three sub-designs or design stripes, namely the *holda'k* stripe, the partition, the *binab-a'* stripe, the teeth, and the *binolme'* stripe proper. These three sub-designs are woven in the following order: red-and-yellow *holda'k* stripe, red *binab-a'* stripe, red-and-yellow *holda'k* stripe, red *binolme'* stripe, red-and-yellow *holda'k* stripe, red *binab-a'* stripe, red-and-yellow *holda'k* stripe, yellow *binolme'* stripe; all these are repeated twice for the design to be woven at the two ends of the belt, which, however, end with a red-and-yellow *holda'k* stripe; they are repeated four times for the middle design, beginning and ending with a red-and-yellow *holda'k* stripe of 9 or 11 picks instead of only 3.

For the *holda'k* stripe (see Fig. XVI) the weaver needs two heddles; all threads to be raised are taken from the *bini'tag* threads.

The first pick (A), a red one, runs under *bini'tag* threads 1, 5, 9, 13, 17, etc., which, consequently, she must raise, and above the other *bini'tag* threads and all the *ginu'l-un* threads (2-3-4, 6-7-8, 11-11-12, etc.).

The second pick (B), a yellow one, runs under *bini'tag* threads 3, 7, 11, 15, 19, etc., all to be raised, and above the other *bini'tag* threads and the *ginu'l-*

un threads (1-2, 4-5-6, 8-9-10, 12-13-14, 16-17-18, etc.).

The third pick (A) is the same as the first. Since only the *bini'tag* threads are interwoven, the *ginu'l-un* threads of the warp appear to run over the three picks on the wrong side of the fabric.

For the *binab-a'* stripe (see Fig. XVI) she needs four heddles. The threads to be raised are now taken from the *bini'tag* as well as from the *ginu'l-un* threads, as follows (let it be remembered that all odd numbered threads are *bini'tag*, all even numbered threads *ginu'l-un*):

The first heddle (C) raises threads 1-2, 13-14, 25-26, 37-38, etc.

The second heddle (D) raises threads 7-8, 19-20, 31-32, 43-44, etc.

The third heddle (E) raises threads 5-6-7-8-9-10, 17-18-19-20-21-22, 29-30-31-32-33-34, 41-42-43-44-45-46, etc., six raised and six not raised. A quadruple red thread is shot through the gape.

The fourth heddle (F) raises threads 1-2-3-4, 11-12-13-14-15-16, 23-24-25-26-27-29, 35-36-37-38-39-40, etc., six raised and six not raised. A quadruple yellow thread is shot through the gape.

With these four heddles she can weave the whole *binab-a'* stripe which consists of 14 picks; with heddle C: picks 1, 8, 13; with heddle D: picks 2, 7, 14; with heddle E: picks 3, 5, 10, 12 and with heddle F: picks 4, 6, 9, 11. Pick E, being made with a quadruple thread covers the warp threads under which pick F passes, which is likewise made with a quadruple thread and, in turn, covers the warp threads under which pick E passes. Pick E appears as if it were twined with pick F; their red and yellow threads form the *binab-a'* proper, the teeth being the yellow quadrangles on all sides surrounded by red threads.

The *binolme'* stripes (*binolme'* proper) are formed by a raising combination of 12 heddles: 6 for the red stripes and 6 for the yellow ones (see explanation of Fig. XVI).

The first heddle (G) raises threads 1-2-3, 8-9-10-11, 18-19-20-21, 26-27-28, 32-33-34, 38-39-40-41-42-43-44-45, 48-49-50-51-52-53-54-55-56-57, 60-61-62-63-64-65-66-67, 71-72-73, etc.

The second heddle (H) raises threads 1-2-3-4-5, 14-15, 24-25-26-27-28, 32-33-34, 38-39-40-41-42-43-44-45, 50-51-52-53-54-55, 60-61-62-63-64-65-66-67, 71-72-73, etc.

The third heddle (I) raises threads 1-2-3, 6-7, 14-15, 22-23, 26-27-28, 32-33-34, 38-39-40-41-42-43-44-45, 52-53, 60-61-62-63-64-65-66-67, 71-72-73, etc.

The fourth heddle (J) raises threads 1-2-3, 8-9, 14-15, 20-21, 26-27-28, 32-33-34, 38-39, 46-47, 52-53, 58-59, 66-67, 71-72-73, etc.

The fifth heddle (K) raises threads 1-2-3, 10-11, 14-15, 18-19, 26-27-28, 32-33-34, 38-39-40-41, 48-49, 52-53, 56-57, 64-65-66-67, 71-72-73, etc.

The sixth heddle (L) raises threads 1-2-3, 12-13, 16-17, 26-27-28, 32-33-34, 38-39-40-41-42-43, 50-51, 54-55, 62-63-64-65-66-67, 71-72-73, etc.

These are the sets of threads to be raised for the yellow *hinolme'* stripe; the 6 sets for the red *hinolme'* stripe are the same, except that the order *tinata'ggu-ginigi'ling-tinaltallo'* of the yellow stripe must be *tinaltallo'-ginigi'ling-tinata'ggu* in the red stripe: therefore, all threads raised from 1 to 37 shift to the right, from 38 to 76, and vice versa.

One pick with a colored (red or yellow) quadruple thread alternates with a pick made with a double black thread, but since the former runs over a number of *bini'tag* threads and over all the *ginu'l-un* threads, being quadruple, it covers the parts of the following black pick along which it runs (see description of *ga'mong* blankets).

The yellow and the red picks form the star designs called *tinaltallo'* (stem, *tallo'*, morning star, reduplicated and with infix *in* indicating similarity) or *bini'tbitu'won* (stem, *bitu'won*, star, also reduplicated and with infix *in*); they form also the *ginigi'ling*, which are upright bars between the star and man designs (stem *gi'ling*, to grind, to mill; *gini'ling* is the term used to designate the Ifugaw copper bracelets, i.e., a copper wire wound some 20 or more times spirally around the arm; *gini'ling* with reduplication—*ginigi'ling*—conveys the idea of similarity, namely with the copper wire of such bracelets. The black threads form the *tinata'ggu* design.

When the *ma'yad* is completely woven, the unwoven warp threads, *hu'y-ut*, are twisted (*lubi'dona*, she twists a number of strands to obtain strings) and then knotted, *nibi'kgut* (*bi'kgut*, knot) by pairs, twice or thrice, so as to obtain some sort of network or, as the Ifugaw call it, a cobweb, *kinawka'wa* (*kawka'wa*, spider). Finally a fringe is attached to the end of each string, a red one alternating with a yellow one; the fringes are called *ha'bong*, flowers (see Fig. XVII).

The Ifugaw wear the *ma'yad* belt in such a way that the three *hinolme'* designs be displayed on their back; they tuck the ends between their body and the belt, caring that the fringes and part of the cobweb hang loose. Since the picks that form the designs cannot be tightened, inasmuch as they run over a number of warp threads, the edges of the designs are somewhat loose and the star and man figures have irregular and widened shapes; in order to conceal these defects of the fabric, they fold the edges of the middle design before they press it against their body, and the end designs before they tuck them in . . . , *te ugge' nakyu'm di binolme'na*, because its designs are not tightly woven.

6. Bags

The Ifugaw of Kiangán weave three kinds of bags: men's hip-bags,

bu'tong (generic term) are either *pinu'hba* or *amba'yong*, the former bigger than the latter.

The term *pinu'hba* (stem *pu'hba* with infix *in*) seems to convey the idea of something (a spinning-top, a bag) that is big bellied. The term *amba'yong*, which is composed of the inseparable prefix *am* (seemingly meaning 'having' or 'with') and stem *ba'yong*, to hang down, suggests the idea of something provided with 'hangers-down'; a hip bag, indeed, has many strings that hang down from the bottom of the bag (see *infra*). Furthermore the word *amba'yong* is often applied to *pinu'hba* bags, for it serves as a generic term for hip-bags in common speech.

The term *libu'tan* (stem *li'but*, to pack, package, with infix *an*) means literally 'the packed one'; *libu'tan* hand-bags are indeed folded and rolled, they are a package by themselves.

a. *Pinu'hba* Bags (see Fig. XVIII)

The warp for a *pinu'hba* is made entirely of double white threads. The operator needs not count her warp threads: when she sees that her chain is wide enough, 25 to 30 cm., she stops winding her yarn. The length of the warp is about one meter (upper chain 1 m. and lower chain 1 m.): with this length she can weave a fabric that is one meter and half long, but she does not do so, because she wants to have a long *hu'y-ut* (see *infra*).

Weaving her bag she first shoots some ten times a shuttle with a double white thread through the gape and strongly beats up her picks with the *bali'ga*; then she forms the *kinaba'ong* stripe and the three or four *bagi't* stripes, using for these a shuttle with a double black thread, but she separates each black stripe by a *holda'ke* (partition) stripe, i.e., some ten white picks without raising other sets of threads than those raised by the main *tubo'ngan* and main *punggul-u'nan*. She weaves another series of stripes in inverted order at the other end of the chain.

Weaving of the *kinaba'ong* stripe. The word *kinaba'ong* (stem *kaba'ong* with infix *in*) means 'that which is similar to (if the infix *in* means 'similar to') a *kaba'ong*', or 'that which has many (if the infix infers the idea of plurality) *kaba'ong*'. *Kaba'ong* is an euphorbiaceous shrub with oval leaves, becoming black when dry (*Breynia rhamnoides*, Muell.-Arg.); obviously the similarity or the multiplicity is based on the leaves of the shrub.

To weave the stripe only two heddles are needed: the first raises *bini'tag* threads 1 & 2, 5 & 6, 9 & 10, 13 & 14, and so forth; the second raises the other *bini'tag* threads (3 & 4, 7 & 8, 11 & 12, etc.).

The operator works her stripe in the following manner: She raises the first heddle and shoots a shuttle with a double black thread, with her sword she moves the pick downward until it meets the foregoing pick; she does

not beat up the new pick but with one of her fingers moves the middle of the pick some 15 cm. upwards, so that a triangle is formed having for basis the foregoing pick and this new pick for its two other sides. Then she removes the sword, raises the main *punggul-u'nan* (therefore all the *ginu'l-un* threads of the warp) and, without shooting a shuttle, she inserts her sword in the gape so obtained and beats up the angular black pick. This pick interweaves the *bini'tag* threads only, since the shuttle was shot before the *ginu'l-un* threads were raised; in other words, the *ginu'l-un* threads were raised in order that they may pull up a little the angular pick, which consequently bulges where it runs above the *bini'tag* threads that were not raised.

The second pick is obtained in the same manner, except that she raises now the second set of hedded *bini'tag* threads.

For the third pick she raises again the first set of *bini'tag* threads and shoots a shuttle with white thread and continues as described above.

For the fourth pick she raises the second set of *bini'tag* threads and shoots again a shuttle with white thread and continues as described above.

The fifth pick is obtained in the same manner as the third.

These five operations must be repeated 6 or 7 times for the *kinaba'ong* stripe. One might think that the speckled stripe is dominantly white, since all the warp threads and 3 of the 5 picks are white; yet the stripe is in reality more black than white because the white threads, though double, are thinner than the black ones. Should the white yarn be as thick as the black one, she would either make the black yarn triple or the white yarn single.

This particular weaving process gives a stripe nicely bulged, the black little bulges being (as the Ifugaw see them) similar to the dark or black leaves of a *kaba'ong* shrub. Moreover the stripe appears to be subdivided into 6 or 7 sub-stripes, because the 5th and 6th, the 10th and 11th, the 15th and 16th, etc., picks are obtained by raising the first set of hedded *bini'tag* threads.

The *bagi't* (the root *bag* of *bagi't* seems to suggest the idea of bagasse, cane thrash termed *ba'gbag*) stripes are woven in the same manner as the *kinaba'ong* stripe, or rather like the first and second pick of that stripe, inasmuch as all picks are black ones. The first *bagi't* stripe is broader than the second; the second broader than the third and the third broader than the fourth, the number of picks being gradually reduced.

The wrong side of the fabric displays the *ginu'l-un* warp threads running over the stripes, for they have not been interwoven.

When the fabric has been completely woven, the operator cuts the *hu'y-ut*, midway between the ends of the woven part (see Fig. XVIII, d). Then she folds the fabric lengthwise, wrong side over wrong side; the fabric, so folded, is now double, as long as it was before but only half as wide. She now turns the upper part of the fabric towards its lower part until edges touch edges, stripes meet stripes. Then she stitches the edges together with

yellow and red threads, that is, she makes the *boo'ng* (see Fig. XVIII, b), a sort of decorative seam finishing which presents some similarity with a necklace or hairlace; a *boo'ng* is indeed a string of red and white beads. The embroidery runs on both sides from the lower edge of the fabric, over the stripes, up to the last pick of the fourth *bagi't* stripe, or a little beyond. The remaining part of the fabric (which is wholly white) forms a ring above the opening of the bag; being irregularly contracted it serves as handle.

The lower edges, those from which the unwoven warp threads (the *hu'y-ut*) start, are then joined together by braiding the loose hanging strands, now called *ngu'me*, fringes. This is done in the following manner: the operator intertwines three strands (each of them being composed of several double threads) to form the *inapi'd*, the braided one: she intertwines strands 1, 2 and 3 once, then strands 2, 3 and 4 once, strands 3, 4 and 5 once again, and so forth, until she reaches the other corner of the bag. The *inapi'd* string thus braided closes the bag. After that she braids the strands up to their end and makes a knot, *hi'kgut*, lest they may ravel.

Finally, on both the bag's corners she stitches an oval shaped design with a yellow thread in the same way as the *boo'ng* and runs around it a double stitch with a red thread: this is the *kinalu'gu*, the funnel-shaped design (see Fig. XVIII, c). A *kalu'gu* is a funnel-shaped recipient, made of canes fixed around the stem of a betelnut tree, under its grapes, to catch the betelnuts that may fall.

What makes the bag really a hip-bag, a bag that can be inserted from below between the body and the geestrings and can remain hanging on the hip, is the *doyo'm*. The *doyo'm* is the copper wire coiled around the crumples of the handle. The man who will use the bag unwinds the *doyo'm* from his old bag and calls on the good services of an expert coiler, who knows how to wind the coils nicely side by side and to give the whole series a bi-concave shape. While the series of coils is called *doyo'm*, the handle with the *doyo'm* is termed *lidi'ngan*, lit., that which is provided with a *li'ding*, i.e., with a row of curves. The *lidi'ngan* is often provided with a *takeda'ng*, a thicker ring-shaped copper wire, the ends of which are tucked on both sides into the *doyo'm* (diameter of the ring: approximately 10 cm.).

The opening of the bag is called *toko'na*, its mouth; when the bag hangs on the hip the lips of the so-called mouth close by themselves, so that the hip-bag owner needs not worry that he will lose some of its contents when he is on the march: his betelnuts, leaves and lime container, his *kotti'wong* (a crescent-like shaped small knife), his wooden spoon, his amulets and what nots will accompany him wherever he goes.

b. *Amba'yong* Bags

An *amba'yong* is smaller than a *pini'bha*: it is made from a fabric that is

not more than 20 cm. wide. All the warp threads are black and double as usually.

Weaving her fabric, the operator forms also five stripes: one *kinaba'ong* (see *supra*) and four or five *binu'lgí* stripes, none of them being as broad as the corresponding ones of the *pinu'bha*.

The *kinaba'ong* stripe is woven in the same manner as that of the *pinu'bha*, but instead of being composed of 6 or 7 times 5 picks, it is composed of 6 or 7 times 1 red, 1 yellow and 1 red pick.

The *binu'lgí* stripes are woven in the same manner as those of the *ga'mong* blanket (see p. 15), but the first, third and fifth (if any) are made of red, the second and fourth of yellow picks.

Usually an *amba'yong* hip-bag has no *kinalu'gu*; it has its *doyo'm* and *takda'ng*.

c. *Libu'tan* Bags

Libu'tan hand-bags (women's bags) are often made of a piece of cloth cut from an old *ha'pe* blanket, a skirt or a belt. When purposely woven its fabric is 40 cm. long and 30 cm. wide, and is wholly black.

Then the edges that can ravel are hemmed (*nalpita'n*, hemmed; stem *lupi't*, hem, with prefix *na*—which causes the syncopation of the pepet letter *u*—and suffix *an*). This being finished, the fabric is folded lengthwise and in such a way that its selvages meet at the middle line of the cloth; these are then sewn together by a *takdo'g* stitch from the bottom up to half-way. Finally the lower edges are sewn together by a *bambu'lud* stitch (see Fig. XIII, j).

Women use the bag to put in all that they need for chewing; they keep it, rolled up, in the pouch formed by their skirt above their belt.

B. Textiles with Dyed Designs

1. Dyeing Process

The textiles which have designs, obtained by dyeing a number of threads in a blue, black or red dye, before they are warped on the ordinary loom, are (1) *inla'dang* blankets, (2) *gami't* skirts, (3) *pini'wa*, (4) *kupi'ling* and (5) *taga'ktag* geestrings.

The dyeing process, the same for all, is the following:

First the operator winds the yarn, which she intends to dye, on a special loom, called *pala'dang*. Her yarn is white, if she wants to have white designs; it is blue, if she prefers blue designs, i.e., she has, in that case, dyed her yarn in a blue *da'lum* dye (see p. 3).

The *pala'dang* (see Fig. XIX) is a standing loom made of two posts, a thick board and a bamboo section. The *pala'dang*'s posts, *tu'kudna* (its posts),

have parallelepipedic footings, called *buki'na* (its, the posts', feet), which are some 6 inches high and 2 inches thick; their upper parts, approximately one meter long, are uniformly round and as thick as the footings. A thick board, *du'longna*, its floor, provided with holes, *uwa'ngna*, its holes, through which the upper parts of the posts pass, rests on the footings. Six holes have been made in the board, i.e., three on each side; therefore, the operator can enlarge or reduce the distance between the two posts: usually she will pass the posts through the two outermost holes, when she intends to weave a blanket (from hole to hole: 2 m.); she passes them through the two innermost holes for weaving a skirt (from hole to hole: 1.40 m.) and through the middle ones for a geestring (from hole to hole: 1.70 m.). It is very important that the posts be well fixed in their holes, lest they lose their vertical position: therefore a couple of wedges, *hi'kad*, are driven in the interstices; moreover, to prevent that they bend or be pulled by the chain, which will be wound tightly on the loom, a bamboo rod, *boka'g*, which is slightly longer than the distance between the posts and which is provided with concave shaped ends, *hali'ngat*, that exactly fit with the roundness of the posts, is driven between the two posts (see Fig. XIX) (they, as it were, bite in the posts, for the projecting tops of those concave ends are called teeth, *bab-a'n di hali'ngat*, the teeth of the *hali'ngat*).

When the *pala'dang* has been set up, the operator begins with the winding of the yarn, *munwa'he*. She uses a double threaded ball. She knots the end of the thread to one of the posts and unwinds her ball continually going around the *pala'dang*. She must wind her thread rather tightly, avoiding slanting of threads and especially caring that her threads do not run across those that have already been warped.

There are two kinds of stripes which will bear the designs, when dyeing and weaving will be finished: they are called *ado'lna*, the body (lit., its body, i.e., the body of the design warp), and *gi'ligna*, the border (lit., its border).

For warping an *ado'l* of a blanket or a skirt stripe, the operator must go around the *pala'dang*: 6 times 11 times, 6 times, and 6 times 11 times (or if she prefers narrower stripes: 6 times 9 times, 6 times, and 6 times 9 times). Total number of threads: 138, multiple of 6 and 3.

For warping a *gi'lig* stripe of a blanket or skirt, she goes around the *pala'dang* 6 times 5 times. Total number of threads: 30, multiple of 6 and 3.⁶

For warping the design stripes of geestrings, the times the operator goes around the loom are counted by fours, not by sixes, but this will be explained below.

6) Some weavers may prefer the combination of 3 quadruple (or 3 triple) threads, instead of 6 double ones.

Since blankets and skirts have two double *ado'l* and two *gi'lig* design-stripes, she must repeat her winding operation. But each stripe must remain a distinct unit. Therefore she intertwines all the threads of each stripe with a small string, called *bi'pol* (see Fig. XIX) near one of the posts and covers it with a portion of a banana leaf, which will help her to distinguish at once the various stripes.

When all these have been wound around her loom she makes the *tala'kid* (see Fig. XIX), that is, she intertwines the double chain of threads with a double string making it encircle (since it is double) 6 threads of the chain which runs in front of the post and 6 threads of the chain which runs at the back of the posts, so that the double chain is reduced to one single chain and that every time 12 threads are intertwined. We say: 6 and 6 threads, but it must be kept in mind that the 6 and 6 combination cannot be maintained when geestrings will be woven; in that case the combination will be that of 4 and 4 or 3 and 3 threads, so that then 8 or 6 threads will be intertwined.

These 12, 8 or 6 threads form one unit for the *bo'bod* operation; one unit (a bundle of 12, 8 or 6 threads, as the case may be) is called *himbula'lo*.

She now can begin with the delicate *bo'bod* operation (*mumbo'bod*, lit., she binds): she takes a thread (of another color than those on the *pala'dang*), and passes it through some doughlike cooked rice in order to make it sticky, and winds the thread around the part or parts of each *bula'lo* which must form the design. In other words, she prevents by her winding that the parts covered by her thread will be affected by the dye. She has, of course, to knot the ends of her thread and to care that it nicely and completely covers the *bula'lo* parts that must be covered for the particular design she has in mind.

One of the *bula'lo* has a special name: it is called *pumbinungbu'ngan*. It is that *bula'lo* which runs in the middle of an *ado'l* stripe: an *ado'l* stripe (see p. 33) is composed of twice (for the chain was double) six times 11 threads (or 11 *bula'lo*), twice six threads (or 1 *bula'lo*, namely the *pumbinungbu'ngan*) and twice 6 times 11 threads (11 *bula'lo*). This *pumbinungbu'ngan* may not be covered by the *bo'bod*, for it does not enter in the design combination. It has the function of separating the two halves of the stripe and when it will be mounted on the warp before weaving will begin, it will be divided into two: three threads will be warped after one half of the stripe have been warped, then a narrow red stripe will be inserted and, after that, the remaining three threads will be warped. The very term *pumbinungbu'ngan* means: the one (the *bula'lo*) which has the place of that which has been dyed in a *bu'ngbung* dye (see pp. 3-4); it is composed of the stem *bu'ngbung* with the verbal time-infix *in*, and prefix *pun* and infix *an*, which infer a locative meaning.

Since those parts of the various *bula'lo* that are envelopped by the *bo'bod* thread (*nabobo'dan*) will not be affected by the dye, the designs will be either blue or white (see p. 32), while the rest of the threads will take the color of

the dye: black or red. The various dyeing processes have been described on pp. 3 and 4.

When dyeing is finished, the operator removes the *bo'bod* threads, *ibu'-kanay bo'bod*, and also the *tala'kid*, not however the *hi'pol* (see p. 33) for the *hi'pol* (there are as many *hi'pol* as there are stripes) holds the threads needed for each stripe together.

Next, the operator mounts the design warp on the ordinary *abla'n* in the usual manner, after having, of course, removed the stripe's *hi'pol*. It will now appear if she is skilled or not. In fact, some weavers are not skilled and are not careful enough, for most of their designs show irregularities. If they make mistakes in counting their threads or even their *bula'lo*, or do not sufficiently avoid that some threads run across others they cannot any more correct the defects. Irregularities in the designs can also be caused by the operator's failing to tighten uniformly all her threads when she winds them around the *pala'dang*; in that case some blue or white spots will be out of line. She can, however, correct these defects by tightening such loose threads by means of thin little sticks, called *pona'd*, stretchers, around which she winds once or twice the looser threads; such *pona'd* sticks will not encumber the weaving for they are all put in that part of the chain which cannot be woven anyway, that is the *bu'y-ut*.

Finally, she warps the other threads between the various design-warp-threads, where they are needed in accordance with the textile she intends to weave, and weaves her blanket, skirt or geestring in the ordinary way, using, in all cases, only one shuttle with a double black thread.

2. *Inla'dang* Blankets

An *inla'dang* blanket is made of three pieces, one middle piece, *ado'lua*, and two side pieces, *bali'ngbing*, plus two small *talu'ngtung* or border pieces. The middle piece is somewhat broader than the side pieces, because it has two *gi'lig* stripes, while the *bali'ngbing* have only one. Its value is estimated higher than that of the *ga'mong* or *baya'ong* blankets; it is often used, though not always, to envelop a corpse, and in that case it takes the place of the *baya'ong*, not of the *ga'mong* blanket.

Warping of either middle piece or side pieces: all threads are double. Border stripe with designs: 6 times 5 threads, i.e., 15 *bini'tag* threads alternating with 15 *ginu'l-un* threads;

Ku'lhud (means, narrow stripe): 2 red *bini'tag* threads alternating with 2 red *ginu'l-un* threads;

Design stripe: 6 times 11 threads, i.e., 33 *bini'tag* threads alternating with 33 *ginu'l-un* threads;

One half of *pumbinungbu'ngan*, i.e., 1 *bini'tag* thread, 1 *ginu'lun* thread and 1 *bini'tag* thread;

Ku'lhud: 2 red *ginu'l-un* threads alternating with 2 red *bini'tag* threads;
 Other half of *pumbinungbu'ngan*, i.e., 1 *ginu'l-un* thread, 1 *bini'tag* thread and 1 *ginu'l-un* thread;
 Design stripe: 6 times 11 threads, i.e., 33 *bini'tag* threads alternating with 33 *ginu'l-un* threads;
Ku'lhud: 2 red *bini'tag* threads alternating with 2 red *ginu'l-un* threads;
 150 black *bini'tag* threads alternating with 150 black *ginu'l-un* threads;
Ha'bak (wide stripe): 26 red *bini'tag* threads alternating with 25 *ginu'l-un* threads;
 150 black *ginu'l-un* threads alternating with 150 black *bini'tag* threads;
Ku'lhud: 2 red *ginu'l-un* threads alternating with 2 red *bini'tag* threads;
 Design stripe: 6 times 11 threads, i.e., 33 *ginu'l-un* threads alternating with 33 *bini'tag* threads;
 One half of *pumbinungbu'ngan*, i.e., 1 *ginu'l-un* thread, 1 *bini'tag* thread and 1 *ginu'l-un* thread;
Ku'lhud: 2 red *bini'tag* threads alternating with 2 red *ginu'l-un* threads;
 Other half of *pumbinungbu'ngan*, i.e., 1 *bini'tag* thread, 1 *ginu'l-un* thread and 1 *bini'tag* thread;
 Design stripe: 6 times 11 threads, i.e., 33 *ginu'l-un* threads alternating with 33 *bini'tag* threads;
Ku'lhud: 2 red *ginu'l-un* threads alternating with 2 red *bini'tag* threads;
 Border stripe with designs: 6 times 5 threads, i.e., 15 *ginu'l-un* threads alternating with 15 *bini'tag* threads, but only when the middle piece is warped. When the left *bali'ngbing* is warped this border stripe with designs is replaced by 4 black *ginu'l-un* threads alternating with 4 black *bini'tag* threads. The right *bali'ngbing* is warped like the left one but in inverted order.

Warping of the *talungtung*:

7 black *bini'tag* threads alternating with 7 black *ginu'l-un* threads;
 1 red *bini'tag* thread and 1 red *ginu'l-un* thread;
 2 black *bini'tag* threads alternating with 2 black *ginu'l-un* threads;
 9 black *bini'tag* threads alternating with 8 black *ginu'l-un* threads;
 2 black *ginu'l-un* threads alternating with 2 black *bini'tag* threads;
 1 red *ginu'l-un* thread and 1 red *bini'tag* thread;
 7 black *ginu'l-un* threads alternating with 7 black *bini'tag* threads.

Fringes are inserted while the weaving of the *talungtung* proceeds: every two inches one fringe, a red one alternating with a white one. Usually the operator does not beat up very well her *talungtung* picks.

The designs of *inla'dang* blankets are the following (see Fig. XXI):

The *kinatiba'nglan* (see p. 15), tree fern design;—in stripes of 11 or 9 *bula'lo*.
 The *biniki'tan* (see p. 15), shuttle design;—in stripes of 11 *bula'lo*.
 The *tina'ggau* (see p. 15), little man design;—in stripes of 11 *bula'lo*.

The *ini'ddo* (see p. 15), python design;—in stripes of 5 *bula'lo*.

The *ginlo't* (stem *golo't*, to cut off with one blow, with infix *in*), the design is made of 3 vertical lines (each line representing one straight cut) and 2 horizontal ones (each line representing the object which is cut) running from vertical to vertical as shown in Fig. XXI; it can be made with 5, 9 or 11 *bula'lo*.

The *ginágatti'n* (stem *gati'n*, footprint, with infix *in* conveying the idea of similarity, and reduplication of *gat*, giving a plural meaning to the word), the little footprints design;—in stripes of 9 and 11 *bula'lo*.

The *binakba'klong* (stem *ba'klong*, dipper, with reduplication *bak* and infix *in*), the little dipper design;—in stripes of 11 *bula'lo*.

The *binula'ngon* (stem *bula'ngon*, monkey, with infix *in*), monkey design—in stripes of 11 *bula'lo*.

The *inamba'yong* (stem *amba'yong*, hip bag, with prefixed infix *in*), the hip bag design: it has a more or less triangular shape and can be made with 9 or 11 *bula'lo*.

The *pinala'ngyu* design (we cannot explain the term, see Fig. XXI).

The pieces of the blanket are joined together with an oblique stitch, hemming is worked with an ordinary hemming stitch.

3. *Gami't* Skirts

A *gami't* skirt is made of two equal pieces joined together with a *takdo'g* stitch; a series of red threads alternates with a series of white or yellow threads (*takdo'g* stitch, see p. 24); its edges that fray are hemmed and have a *hambu'lud* (see p. 24).

Warping of a *gami't* skirt (all threads are double, except the white ones, which are single): 8 black *bini'tag* threads alternating with 8 black *ginu'l-un* threads;

Ku'lbud: 1, 2 or 3 red *bini'tag* threads alternating with 1, 2 or 3 *ginu'l-un* threads;

Border stripe with designs: 6 times 5 threads, i.e., 15 *bini'tag* threads alternating with 15 *ginu'l-un* threads;

Ku'lbud: 1, 2 or 3 red *bini'tag* threads alternating with 1, 2 or 3 *ginu'l-un* threads;

50 black *bini'tag* threads alternating with 50 black *ginu'l-un* threads;

Design stripe: 6 times 11 threads, i.e., 33 *bini'tag* threads alternating with 33 *ginu'l-un* threads;

One half of *pumbinungbu'ngan*, i.e., 1 *bini'tag* thread, 1 *ginu'l-un* thread and 1 *bini'tag* thread;

Ku'lbud: 2 red *ginu'l-un* threads alternating with 2 red *bini'tag* threads;

Other half of *pumbinungbu'ngan*, i.e., 1 *ginu'l-un* thread, 1 *bini'tag* thread and 1 *ginu'l-un* thread;

Design stripe: 6 times 11 threads, i.e., 33 *bini'tag* threads alternating with 33 *ginu'l-un* threads;

1 black *bini'tag* thread, 1 black *ginu'l-un* thread, 1 white *bini'tag* thread (called *mata'na*, its eyes), 1 black *ginu'l-un* thread and 1 black *bini'tag* thread;

Ha'bak: 16 red *ginu'l-un* threads alternating with 15 red *bini'tag* threads;

1 black *bini'tag* thread, 1 black *ginu'l-un* thread, 1 white *bini'tag* thread (*mata'na*), 1 black *ginu'l-un* thread and 1 black *bini'tag* thread;

Design stripe: 6 times 11 threads, i.e., 33 *ginu'l-un* threads alternating with 33 *bini'tag* threads;

One half of *pumbinungbu'ngan*, i.e., 1 *ginu'l-un* thread, 1 *bini'tag* thread and 1 *ginu'l-un* thread;

Ku'lbud: 2 red *bini'tag* threads alternating with 2 red *ginu'l-un* threads;

Other half of *pumbinungbu'ngan*, i.e., 1 *bini'tag* thread, 1 *ginu'l-un* thread and 1 *bini'tag* thread;

Design stripe: 6 times 11 threads, i.e., 33 *ginu'l-un* threads alternating with 33 *bini'tag* threads;

50 black *ginu'l-un* threads alternating with 5 black *bini'tag* threads;

Ku'lbud: 1, 2 or 3 red *ginu'l-un* threads alternating with 1, 2 or 3 red *bini'tag* threads;

Border stripe with designs: 6 times 5 threads, i.e., 15 *ginu'l-un* threads alternating with 15 *bini'tag* threads;

Ku'lbud: 1, 2 or 3 red *ginu'l-un* threads alternating with 1, 2 or 3 red *bini'tag* threads;

8 black *ginu'l-un* threads alternating with 8 black *bini'tag* threads.

Designs of *gami't* shirts: see p. 36.

Nowadays one sees sometimes women wearing a fake *gami't* skirt, which is like a *gami't*, except that its design stripes have no designs at all.

4. *Pini'wa* Geestrings

Pini'wa geestrings (sometimes called *pini'wa an nabobo'dan*, *pini'wa* which are provided with bindings, i.e., windings) are the same as those called *pini'wa an nili'bha* (see p. 22), except that in the *pini'wa* proper the designs are obtained by means of the dyeing process described above. The *da'lum* and *pu'yyok* dye are used for the two border stripes of the geestring's *dayu'de* and *iwi'tan* (see p. 21); the *bu'ngbung* dye for the *ha'bak*, the large red stripe in the middle (see p.3-4).

The design of the border stripes is called *tini'ppa*. This term (stem *ti'pa* with infix *in* and reduplication of *p* inferring the idea of similarity and plurality) is taken from the compound word *muntipati'pa*, a boys' game: they put a small stick or cane on the edge of a wooden block making it jut out a little and then with another stick they beat on its projecting end to make it leap and fall beyond a certain mark on the ground. The design is therefore a

series of horizontal and vertical lines, the vertical ones touching alternatively the left and right end of the horizontal one; the design may also be called *ginlôginlo't*, a continuous *ginlo't* (see p. 36).

The designs on the red middle stripe of the geestring are those of the *binubla'n* geestring (see p. 21), but obtained by dyeing, not by stitching.

5. *Kupi'ling* and *Taga'ktak* Geestrings

These two kinds of geestrings are also called *tino'nwe*. Rich people clothe with either of them a dead man's body before they fasten it on the death-chair, and because they would be ashamed to cloth their deceased relative with an ordinary geestring, they will do all that they can in order to obtain one and will pay a high price for it, even five times its value in ordinary circumstances.

The width of the *kupi'ling* is but 5 to 6 inches, that of the *taga'ktak* some 2 inches more; yet the former is preferred to the latter.

The design stripes are made of 4 or 3 *bula'lo*; none of the stripes have a *pumbinungbu'ngan* (see p. 34).

Warping of the *kupi'ling* (see Fig. XXII):

The yarn is double, but that of the design stripes is triple or quadruple:
4 black *bini'tag* threads alternating with 4 black *ginu'l-un* threads;

Design stripe: 4 times 4 threads, i.e., 8 *bini'tag* threads alternating with 8 *ginu'l-un* threads;

6 black *bini'tag* threads alternating with 6 black *ginu'l-un* threads;

Ku'lhud (narrow stripe): 5 red *bini'tag* threads alternating with 4 red *ginu'l-un* threads;

6 black *bini'tag* threads alternating with 6 black *ginu'l-un* threads;

Design stripe: 4 times 4 threads, i.e., 8 *bini'tag* threads alternating with 8 *ginu'l-un* threads;

6 black *bini'tag* threads alternating with 6 black *ginu'l-un* threads;

Design stripe: 3 times 4 threads, i.e., 6 *bini'tag* threads alternating with 6 *ginu'l-un* threads;

6 black *bini'tag* threads alternating with 6 black *ginu'l-un* threads;

Design stripe: 4 times 4 threads, i.e., 8 *bini'tag* threads alternating with 8 *ginu'l-un* threads;

Ha'bak (wider stripe): 9 red *bini'tag* threads alternating with 8 red *ginu'l-un* threads;

Design stripe: 4 times 4 threads, i.e., 8 *ginu'l-un* threads alternating with 8 *bini'tag* threads;

6 black *ginu'l-un* threads alternating with 6 black *bini'tag* threads;

Design stripe: 3 times 4 threads, i.e., 6 *ginu'l-un* threads alternating with 6 *bini'tag* threads;

6 black *ginu'l-un* threads alternating with 6 black *bini'tag* threads ;
 Design stripe: 4 times 4 threads, i.e., 8 *ginu'l-un* threads alternating with
 8 *bini'tag* threads ;
 6 black *ginu'l-un* threads alternating with 6 black *bini'tag* threads ;
Ku'lbud: 6 red *ginu'l-un* threads alternating with 6 red *bini'tag* threads ;
 6 black *ginu'l-un* threads alternating with 6 black *bini'tag* threads ;
 Design stripe: 4 times 4 threads, i.e., 8 *ginu'l-un* threads alternating with 8
bini'tag threads ;
 4 black *ginu'l-un* threads alternating with 4 black *bini'tag* threads.

Warping of the *taga'ktak* :

The same number of stripes: those that are not design stripes are made of more black or red threads, enough to make the geestrings some 2 inches wider than the *kupi'ling*.

The two ends of both these geestrings ought to be provided with a border piece, *talun'gtung*, instead of the ordinary *ngu'me*. The warp of the *talun'gtung* is :

5 white *bini'tag* threads alternating with 5 white *ginu'l-un* threads ;
 9 red *bini'tag* threads alternating with 8 red *ginu'l-un* threads ;
 5 white *ginu'l-un* threads alternating with 5 white *bini'tag* threads.

The designs of either of these geestrings are the following (see Fig. XX and XXII) :

Inugadi'w (stem *ugadi'w*, very small fishes, with prefixed infix *in*), the small fishes design ;

Tini'ppa : see p. 38 ; also called *ginluginlo't* ;

Binalla'tong (stem *balla'tong*, peas, with infix *in*), the peas' design ;

Inan-a'ntak (stem *a'ntak*, kind of peas, with prefixed infix *in* ; stem reduplicated), the beans design ;

Kinilkula'p-e (reduplicated stem *kulkula'p-e*, butterfly, with infix *in*), the butterfly design ;

Tini'kku (stem *ti'k-u*, zigzag, with infix *in* and reduplicated *k*), the zigzag design.

Such designs are woven only on the *dayu'de* and *iwi'tan* of the geestrings ; the stripes run through from end to end, what is not the case with the *pini'wa* geestrings.

Weaving among the Ifugaw is certainly a culture trait of great antiquity ; it is widespread over all Ifugawland, except in the region of the Mayawyaw, where it is of recent introduction and where some 30 years ago one could still see blankets and even geestrings made of the bark of a tree, together with cheap cloth used as skirts, geestrings, blankets and even hip bags, bought from outsiders.

Our statement concerning its antiquity is based primarily on the fact that the various textiles woven by the Ifugaw have acquired purchase and redemp-

tion value. All purchase contracts, of rice fields as well as heirlooms, all fines include in the price to be paid at least one, often several textiles; the law of custom has given them, seemingly since time immemorial, a well determined value.

Besides, they play an important part in funeral customs; the fact that they weave special blankets and geestrings for such purposes sufficiently demonstrates this.

Hence it is quite to be expected that among the Ifugaw, who possess an extremely well developed ritual, the weaving process as well as its products invaded the very domain of the ritual. There are quite a number of magical tales that speak of weaving or of textiles, insinuating therefore that they are as old as the tales themselves. Besides wearing the same clothes, —there is a popular expression that the rainbow is the geestring of the Typhoon-Deity (*attibunga'llon ya wano'h Pu'wok*)—, their gods enjoin their worshippers to offer blankets, skirts and geestrings.

The Ifugaw, moreover, trace the origin of weaving to a certain deity, called *Punholda'yan*. A magical tale, indeed, displays their culture heroes, *Bu'gan* and *Bali'tok*, or else *Bu'gan* and *Wi'gan*, as purchasing the first *abla'n*, weaving loom, from him: the transaction fits the name of *Punholda'yan*, which seemingly means: the person who is go-betweened, i.e., who is talked to and induced to exchange the *abla'n* he owns for something of value, say a rice wine jar.

But the ritual significance of weaving is most strikingly displayed in an invocation of a series of supernatural beings which by their very names describe almost completely the weaving process from cotton to cloth. The Ifugaw have deified all that has importance in their culture; it is, consequently quite natural that they deified their weaving activities. The invocation runs as follows:

Punholda'yarad Kabunya'n, Punholdayan of the Skyworld (see explanation given above),

Bu'gan inPunholda'yan, Bagan wife of Punholdayan,

Kinulhu'dan, Striped (*ku'lhud* means, a narrow stripe),

Bu'gan inKinulhu'dan, Bagan wife of Kinulhudan,

Mungkula'be, Maker of *kulabe* (*kula'be* is the same as *kalu'mbing*, see p. 20; seems to refer to some primitive weaving method by hand),

Bu'gan inMungkula'be, Bagan wife of Mungkulabe,

Munnu'tnut, Separator of seeds from cotton, (see p. 1),

Mumbu'bug, Fluffer (see pp. 1–2),

Muntoba'yon, User of the spindle (see p. 2)

Munti'yong, Spinner (see p. 2: same as *dumi'ing*, *mundi'ing*)

Mum-adame', Thread-Twister (see p. 2),

Mumpu'lin, Winder into balls (after spinning),

Munwala'ngan, Winder into skeins (see pp. 2-3),
Mummo'lmol, Dipper into rice milk (starch, see p. 3),
Munda'lum, Dyer into the indigo dye (see p. 3),
Mumbu'ngbung, Dyer into the red *bu'ngbung* dye (see p. 4),
Mumpu'dun, Winder into balls from the winding wheel (see p. 5),
Munwa'be, Winder around the standing loom (*pala'dang*, see p. 33),
Munba'ud, Warper (see pp. 5-7),
Munda'wat, Receiver (helper in the warping operation, see p. 6),
Manu'klit, Heddle-Raiser (user of the *bu'klit*, see p. 12),
Mun-abo'l, Weaver (see p. 7).

This or a similar (we may have failed to note a few names)⁷ invocation is recited in almost all ordinary sacrificial performances. These Weaver-Deities are sometimes given a chicken as the victim killed for them properly, namely in the case a sacrifice is performed to cure eye diseases; the Weaver-Deities are indeed believed to cause such sicknesses, a belief which is perhaps based on the fact that women rather than men suffer from some eye disease and that many older women (who without glasses must count their threads and raise their heddles) complain that their eyes ache after some hours of weaving.

III. WEAVING VOCABULARY

Since in our foregoing descriptions many of the Ifugaw terms are used more than once and but once translated, we have thought it advisable to add a supplementary list of all Ifugaw words used in our monograph, arranged in alphabetical order, not according to the first letter of the stem of the word, but of the term itself; however we give here only the meaning, and omit further ethymological and other explanations, which are given in the text.

Abla'n: weaving loom.

Abo'l: stem of the words, *abla'n*, *mun-abo'l*, *inabo'l*, conveying the idea of weaving.

Adame': stem of the words *indame'*, *mun-adame'*, conveying the idea of spun thread.

Ado'lna: lit., its body; applied to the middle piece or pieces of blankets; applied also to the warp elements that must be mounted more or less in the middle of the chain set up for weaving textiles with dyed design stripes.

Agu'tan: to scrape (in order to isolate the fibres that will be spun, see p. 1).

7) See Barton, The Religion of the Ifugaos, *American Anthropologist*, Vol. 48, No. 4, Part 2, pp. 29-30. Although Barton's spelling is defective and his translations are not always correct, the list referred to gives a fairly general idea of the invocation.

- Amba'yong*: hip bag (see pp. 28 and 31).
- Ampu'yo*: women's skirt, generic term.
- A'ntak*: stem of the word *inan-a'ntak*; the reduplicated word *an-a'ntak* means a kind of long beans.
- Api'd*: braiding.
- Apido'n*: to braid.
- Ati'p*: stem of the word *ina'ttip* (see *ina'ttip*), means a kind of edible beetle found in the rice field paddies.
- Bab-a'na*: lit., its teeth, (*bab-a'*, tooth), applied to part of the *binongo'gan* design (see p. 11).
- Baga'ngna*: lit., its throat (*baga'ng*, throat), applied to opening of a *la'mma* garment (see p. 25).
- Ba'gbag*: cane thrash (see p. 30).
- Bagi't*: bulging stripe of *pinu'bba* hip bags (see p. 30).
- Bala'bag*: conveys the idea of transversal or lying position (see *binala'bag*).
- Bali'ga*: sword (see p. 5); *bali'gan di li'bba*: see *hu'klit*.
- Bali'ngbing*: side piece of blankets.
- Balko'(h)*: women's belt, generic term.
- Balla'tong*: a kind of peas (see *binalla'tong*), *Phaseolus radiatus*, L., *Leguminosae*.
- Balu'nglung*: trough, pig's manger used in dyeing of skeins (see p. 3).
- Balwa'ti*: cloth, garment; generic term not used in foregoing descriptions.
- Bani'ya*: lizard (see *binanni'ya*).
- Baya'ong*: wealthy people's blanket (see p. 16 & following).
- Bay-u'n*: stem of the word *ibay-u'na* (see *ibay-u'na*), conveys the idea of hanging.
- Bi'k-i(b)*: stem of the word *bik-i'hona* (see *bik-i'hona*), rent, tear.
- Bik-i'hona*: lit., she tears off (see p. 1).
- Binab-a'*: teeth: design of *la'mma* garments (see p. 25); part of *binongo'gan* (see p. 11).
- Binala'bag*: put in transversal or lying position; *binala'bag an tina'gggu*: stitched little man design lying on its side (see p. 21).
- Binalla'tong*: peas' design in geestrings (see p. 40).
- Binanni'ya*: lizard design in blankets (see p. 15).
- Bini'tag*: any odd thread of the chain of the warp (see p. 7 and word *bi'tag*).
- Binitbitu'won*: star-like design in *binolme'* of *ma'yad* skirt (see p. 27, and word *bitu'won*).
- Binongo'gan*: mole-cricket design in *ga'mong* blankets (see p. 19 and following).
- Binubla'n*: most common kind of geestring (see p. 19 & following).
- Binu'bug*: fluffed cotton, (see p. 2).
- Binula'ngon*: monkey design in *inla'dang* blankets and *gami't* skirts (see p. 36).
- Bi'tag*: stem of *bini'tag* (see *bini'tag*), conveys the idea of opening, applied

in ordinary speech to the eyes (opening of the eyes); the odd threads (*bini'tag*) of the chain, which run above the *tubo'ngan* are always raised, hence these threads form with the even threads, that are not raised, an eye-like opening.

Bitu'won: star (see *binitbitu'won*).

Bo'bod: Stem of words *mumbo'bod*, *nabobo'dan*, conveys the idea of tying, winding a thread or string tightly around something and fastening or knotting the ends of the thread or string (or rope); *bo'bod* operation (see pl. 34).

Boka'ng: arc of *bu'hug* (see p. 1)

Bo'kyag: stem of *nabo'kyag* (see *nabo'kyag*), conveys the idea of expansion.

Bo'ngog: stem of *binongo'gan* (q.v.) mole cricket.

Boo'ng: string of red and white beads; applied to decorative seam of hip-bags (see p. 30).

Bu'hug: bow used to fluff cotton (see pp. 1 & 2).

Buba't: stem of *nabha't* (see *nabha't*), conveys the idea of jerking in order to break a thread or a string.

Bu'bul: enemy; stem of *binubla'n* (see *binubla'n*).

Bu'ka(b): stem of *ibu'kana* (see *ibu'kana*), conveys the idea of coming out, come into appearance.

Bula'lo: unit of 12, 8 or 6 threads for the *bo'bod* operation (see p. 34).

Bula'ngon: monkey (see *binula'ngon*).

Bu'lu: tree, the leaves and twigs of which are used in the *da'lum* dye (see p. 3).

Bu'ngbung: tree, the splinters of which are used in the *bu'ngbung* dye (see p. 3).

Bu'tong: hip bag, generic term.

Bu'wa: seeds in cotton bolls (see p. 1).

Dala'dag: small piece of wood put in the hem of the *kala'big* (see Fig. V).

Dalapo'ng: sitting block (see p. 6).

Dalo'm: place below, place under; stem of *mundalo'm* (see *mundalo'm*).

Da'lum: species of indigo, the leaves of which are used in the *da'lum* dye (see p. 3).

Da'it: stem of *nada'it* (see *nada'it*), conveys the idea of sewing together.

Dayu'de: front end of any geestring (see p. 21 and other pages where geestrings are described).

Di'ing: stem of *dumi'ing*; conveys the idea of spinning, twirling.

Doyo'm: copper coils at handle of hip-bag (see p. 31).

Du'longna: lit., its floor, applied to the board of a *pala'dang* loom (see p. 32).

Dumi'ing: to spin, to twirl, namely the spindle (see p. 2); the obtuse point of a spindle.

E'wet: stem of *napae'wet* (see *napae'wet*), conveys idea of crooked, bent, out of line.

- Gadi'gad*: stem of *igadi'gad* (see *igadi'gad*), conveys idea of rubbing, kneading.
- Gako'd*: string or rope to bind or tie.
- Gami't*: skirt with designs obtained by dyeing (see pp. 36–38).
- Gale'tget*: full of stripes, lines; stem of *inggalgale'tget* (see *inggalgale'tget*).
- Ga'mong*: blanket for the dead (see pp. 10–16).
- Gati'n*: footprints; stem of *ginatgati'n* (see *ginatgati'n*).
- Gi'lig*: border, edge; applied to design stripes of *inla'dang* blankets and *gami't* skirts; *gi'ligna*, lit., its border (see p. 35 and following).
- Gi'ling*: stem of words *gini'ling*, *ginigi'ling* (see *ginigi'ling*), conveys the idea of a winding movement as by turning a crank; hence a coffee grinder is termed in Ifugaw: *gi'ling*.
- Ginalgale'tget*: women's skirt, same as *inggalgale'tget* (see p. 23).
- Ginatgati'n*: footprint design in *inla'dang* blankets and *gami't* skirts (see p. 36).
- Ginigi'ling*: coil-like design in *ma'yad* belts (see p. 27).
- Gini'ling*: coiled copper wire bracelet (see p. 27).
- Ginlo't*: what is cut off straightly with one blow: design in *inla'dang* blankets and *gami't* skirts (see p. 36); *ginloginlo't*: see *tini'ppa*.
- Gino'lya*: speckled stripe in any textile (see p. 13).
- Ginu'l-un*: even thread of warp, i.e., all threads that are raised by the heddling thread or *gu'l-un* (see p. 6).
- Golo't*: Conveys idea of cutting off straightly with one blow; stem of *ginlo't* (see *ginlo't*).
- Go'lya*: specks; stem of *gino'lya* (see *gino'lya*).
- Gu'l-un*: thread that loops all even threads of warp or, eventually, all the threads that must be raised for the formation of a design (see p. 6).
- Ha'bak*: broad stripe in textile; sometimes, complex of several stripes (see p. 13 and here and there in text).
- Ha'bong*: flower of narra tree, applied to fringes of *ma'yad* belt; may also be applied to the fringes of any *talungtung* (see p. 28; p. 16).
- Hagipi'lan*: double rod of weaving loom (see p. 5).
- Ha'klong*: dipper, stem of *hinakha'klong* (see *hinakha'klong*).
- Hali'ngat*: concave shaped ends of *hoka'g* rod (see p. 32).
- Ha'lip*: disk.
- Hali'pan*: disk shaped piece of wood surrounding house posts, to prevent rats from entering the house (see p. 6): support of *pum-ablan*.
- Hambu'lud*: decorative stitch on the edges of skirts (see p. 24).
- Hap-e'*: conveys idea of putting in the sun to be dried; stem of *ihap-e'* (see *ihap-e'*).
- Ha'pe*: black blanket with white or speckled stripes (see p. 18).
- Hi'kad*: wedge, used in *pala'dang* loom (see p. 32).
- Hika'dan*: wooden block or stone against which the weaver stays her feet

- while weaving (see p. 6).
- Hi'kgut*: knot.
- Hi'kit*: sort of net to catch bats; stem of *biki'tan* (see *biki'tan*).
- Hiki'tan*: shuttle (see p. 5).
- Hi'ling*: hank, subdivision of *tala'kid*; every *tala'kid*, skein, consists of several *bi'ling* (see p. 2).
- Himbula'lo*: one *bula'lo* (see *bula'lo*).
- Hinakha'klong*: dipper design in *inla'dang* blankets and *gami't* skirts (see p. 36).
- Hiniki'tan*: shuttle design stitched on geestrings, and woven in blankets (see pp. 15, 36).
- Hinkintoga'n*: one that is exchangeable for one *kinto'g* blanket; applied to pigs (see p. 18).
- Hino'lgat*: spear with a blade that has 3 pairs of barbs (see p. 15).
- Hinolho'lgat*: spear head design in *baya'ong* blankets (see p. 15).
- Hinolme'*: complex design of *ma'yad* belts (see p. 26).
- Hintala'kid*: one skein (see *tala'kid*).
- Hinukubu'kup*: basket-like design stitched on geestrings (see p. 21).
- Hinu'lgi*: design stripes having deviating lines: they are part of the *pa'gpag* complex design on *ga'mong* blankets (see p. 11).
- Hi'pil*: gives the idea of double, a pair; stem of *bagipi'lan* (see *bagipi'lan*).
- Hi'pol*: string that intertwines all the warp threads belonging to one particular stripe, when they have been wound around the *pala'dang* (see p. 33).
- Hi'pyut*: sharp end of a spear's shaft, but (in weaving terminology) applied to the two ends of the sword (see Fig. V).
- Hodho'd*: conveys the idea of compactness; stem of the words *bodhodo'na*, *'nabodho'd* (q.v.).
- Hodhodo'na*: lit., she strongly beats up, i.e., each and every of her picks while weaving. (see p. 7); *ga'mong* blankets are usually very loosely woven, *ugge' nabodho'd*, (see *nabodho'd*).
- Hoka'g*: bamboo rod of *pala'dang* loom (see p. 32).
- Holda'k*: partition, applied to horizontal bars in design stripes that separate one design from another in the stripe (see p. 15), or one stripe from another (see p. 29).
- Ho'lgat*: barb of the blade of *hino'lgat* spears; stem of *hino'lgat* and *hinolho'lgat* (q.v.).
- Hu'du*: conveys idea of putting in, introduce, say the shuttle into the gape; stem of *ibu'duma* (see *ibu'du*).
- Hugwi't*: rattan strap tied around hanks or skeins, in order to be able to remove them easily from the pot, when they have been sufficiently dyed (see p. 3).

- Huki'na* : lit., its leg(s) or, its feet, applied to the footings of the *pala'dang* loom (see p. 32).
- Hu'klit* : flat rod having more or less the shape of a small *bali'ga* (see pp. 12, 15).
- Hu'lgí* : conveys idea of deviation, obliquous, slanting; stem of *binu'lgí* (see *binu'lgí*).
- Huthu't* : conveys idea of pushing into; stem of *ibuthu'tna* (see *ibuthu'tna*).
- Hu'y-ut* : part of the chain (warp) that can't be woven (see p. 8 and here and there in text).
- Ibay-u'n* : to hang down as from a horizontal rod; *ibay-u'na*, she hangs them (i.e., the hanks or skeins) down from a rod, to let them dry (see p. 3).
- Ibu'kana* : lit., she makes them (i.e., the covered parts of a *bula'lo*) appear by removing the windings (see p. 34).
- I'do* : python; stem of *ini'ddo* (see *ini'ddo*).
- Igadi'gad* : to rub and knead, applied to skeins kneaded in yellow powder; *igadi'gadna*, she kneads them (the skeins) (see p. 3).
- Ihap e'* : to put in the sun to dry (see p. 3); *ihap-e'na*, she puts them (the hanks) in the sun.
- Ibu'du* : to put something into; applied to the shuttle or the sword when shooting it through or inserting it in the gape; *ibu'dunay bali'ga*, she inserts the sword (see p. 7).
- Ibuthu'tna* : lit., she pushes them (the skeins) into, say, the mud (see p. 3).
- Inabo'l* : textile, anything that is woven, mostly applied to blankets (not in the text).
- Ina'do* : heap of mud in rice field paddies (see p. 1).
- Inamba'yong* : hip bag-like design in *inla'dang* blankets and *gami't* skirts (see p. 36).
- Inan-a'ntak* : long-beans design in geestrings (see p. 21 and p. 40), in blankets (see p. 15).
- Inapi'd* : braided string of hip bags (see p. 30).
- Ina'ttip* : beetle design in blankets (see p. 15).
- Indame'* : yarn, spun thread (see p. 2).
- Indinwa'* : woman's skirt made of two pieces (see p. 24).
- Inggálgale'tget* : woman's working skirt (see p. 23).
- Ini'ddo* : python design in *baya'ong* or *ga'mong* blankets (see p. 15) and in *gami't* skirts or *inla'dang* blankets (see p. 36).
- I'ngit* : red.
- Iningi'tan* : provided with red, i.e., a broad red stripe, as are *binubla'n* geestrings; therefore, such geestrings may be called *iningi'tan* (see p. 19).
- Inla'dang* : blanket with dyed designs (see pp. 35–36); stem *la'dang*(?) with prefix *in*.

- Inta'mong*: rice milk used for starching cotton yarn (see p. 3).
- Intinlu'*: woman's skirt made of three pieces (see pp. 23–24).
- Inugadi'w*: little fish design in *kupi'ling* and *taga'ktak* geestrings (see p. 39).
- Inu'log*: snake design in stripes of blankets (see p. 15); also *inul-u'log*.
- Ipuli'pul*: to twist between thumb and index finger (see p. 2).
- Iwala'ngan*: skeining operation (see pp. 2–3).
- I'wit*: tail; stem of *iwi'tan* (see *iwi'tan*).
- Iwi'tan*: tail of a geestring hanging loose at back of body (see p. 21).
- Kaba'ong*: a shrub with oval leaves; stem of *kinaba'ong* (see p. 30).
- Kala'big*: dorsal belt by which the loom is fastened to the operator (see p. 5).
- Kalu'gu*: funnel shaped recipient fixed around stem of betelnut tree, under a bunch, stem of *kinalu'gu* (q.v.).
- Kalu'mbing*: horizontal stripe near both ends of geestrings (see p. 20).
- Ka'po*: cotton (see p. 1).
- Katiba'nglan*: tree fern (see p. 15); see *kinatiba'nglan* design.
- Kawka'wa*: spider; stem of *kinawka'wa* (see *kinawka'wa*).
- Kinaba'ong*: stripe on hip bags showing some sort of similarity with the leaves of a *kaba'ong* shrub (see p. 30).
- Kinalu'gu*: embroidery stitched over the corners of *pinu'hba* hip bags; its shape is more or less resembling the *kalu'gu* (see *kalu'gu*) (see p. 30).
- Kinatiba'nglan*: tree fern design on blankets (see pp. 15 and 36).
- Kinawka'wa*: cobweb-like fringe work of *ma'yad* belts (see p. 28).
- Kinto'g*: white blanket with black stripes (see pp. 18–19).
- Kinilkula'p-e*: butterfly design on *kupi'ling* and *taga'ktak* geestrings (see p. 40).
- Kotti'wong*: small crescent shaped knife usually kept in hip bag (see p. 31).
- Koyu'm*: conveys the idea of being tight; stem of *nakyu'm* (see *nakyu'm*).
- Ku'gut*: sewing, hem stitch, seam stitch, chain stitch.
- Kula'lo*: plant whose tubers are used for preparing a yellow dye; hence yellow (see p. 3).
- Kula'p-e*: butterfly; mostly pronounced with reduplication: *kulkula'p-e*; stem of *kinilkula'p-e* (see *kinilkula'p-e*).
- Ku'lhud*: narrow stripe, mostly applied to red stripes.
- Ku'lud*: mid-rib of spear blades and double edged knives; applied also to the weaving sword (see Fig. V).
- Kupi'ling*: geestring with dyed designs (see pp. 38–40).
- Kuti'lap*: decorative stitches over the edges of some skirts and geestrings (see p. 24).
- La'lag*: small angular rod inserted in chain after the second or third pick (see p. 8).
- La'mma*: upper garment (see p. 24–25).

- Li'bong*: cone, applied to the conic shaped piece of wood, through which the shaft of the spindle passes (see p. 2).
- Li'but*: conveys idea of something that is rolled up so forming a package; stem of *libu'tan* (see *libu'tan*).
- Libu'tan*: woman's hand bag (see pp. 31-32).
- Li'di*: cylindrical block of house posts (see *bali'pan*, p. 5): support of *pun-abla'n*.
- Li'ding*: row of curves; stem of *lidi'ngan* (see *lidi'ngan*).
- Lidi'ngan*: handle of hip bag (see p. 31).
- Li'lin*: wax, used to make the strands of the warp smooth (see p. 8).
- Li'hba*: design heddle, combination of threads to be raised for the formation of designs (see p. 11 and here and there in text).
- Linno'ng*: thread shot (pick) through a gape obtained by the *tubo'ngan* (see p. 8), i.e., a gape obtained by the pressing up and the pressing down of the *tubo'ngan*.
- Linu'bid*: string, rope; lit., what is twisted, braided.
- Linu'bhong*: mortar design on blankets (see p. 15).
- Lo'bong*: upper garment of men and women (ordinary word, not in text).
- Lolo't*: conveys the idea of 'that which runs through'; stem of *lolota'n* (see *lolota'n*).
- Lolota'n*: rod around which all the warp threads are wound (see p. 4).
- Lono'ng*: conveys idea of pressing down, to depress; stem of *linno'ng* and *lonngo'n* (q.v.).
- Lonngo'n*: to press down, applied to the operation made in order to be able to move the *lolota'n* rod in the direction of the *ulu'wan* (see p. 8).
- Lu'bid*: conveys the idea of braiding, twisting, say a string, a rope; stem of *linu'bid*, *lubi'dona* (q.v.).
- Lubi'dona*: lit., she braids something, say a string or rope or a number of strands (see p. 28).
- Lu'dun*: cotton sliver (see p. 2).
- Ludu'nona*: lit., she rolls up something, i.e., fluffed cotton into slivers (see p. 2).
- Lubo'ng*: mortar; stem of *linu'bhong* (see *linu'bhong*).
- Lupi't*: hem (see p. 31); stem of *nalpita'n* (see *nalpita'n*).
- Mabinubla'n*: something that has a barter value of one *binubla'n* geestrings, applied to pigtails (see p. 19).
- Mai'ngit*: red.
- Mangi'tit*: black (stem *ngi'tit*), also used for dark blue and any dark color.
- Manu'klit*: work with the *bu'klit*; Heddle-Raiser (see p. 41).
- Mata'na*: lit., its eyes; applied to narrow stripes with white or red spots at the sides of another stripe darker in color (see p. 21).
- Ma'yad*: woman's belt with design called *hinolme'* (see pp. 25-28).

- Mili'bod*: to be wound around, applied to the strands that run around the *lolota'n* rod (see p. 7).
- Mo'lmol*: conveys idea of dipping into; stem of *mummo'lmol* (see *mummo'lmol*).
- Mun-abo'l*: to weave (see p. 7); the Weaver (see p. 41).
- Mun-adame'*: to spin yarn (see p. 2); Thread-Twister (see p. 41).
- Mumbo'bod*: to bind, applied to the binding and winding a thread around parts of the *bula'lo* on the *pala'dang* loom (see p. 33).
- Mumbobola'*: white (see p. 3); among the Ifugaw outside the region of Kiangan, the word means red.
- Mumbu'ngbung*: to dye yarn in a *bu'ngbung* dye (see p. 4); Dyer into *bu'ngbung* dye (p. 41).
- Mummo'lmol*: to dip into; Dipper into rice milk (see p. 41).
- Mumpa'gpag*: to beat repeatedly with a stick (see p. 11).
- Mumpona'd*: to stretch the chain (see p. 8).
- Mumpu'dun*: to wind yarn into balls (see p. 4); Winder into balls (see p. 41).
- Mumpu'lin*: Winder into balls (after spinning) (see p. 41).
- Mundalo'm*: what is or runs under something, applied to the lower chain on the loom (see p. 7).
- Munda'lum*: to dye yarn in a *da'lum* dye (see p. 3); Dyer into indigo dye (see p. 41).
- Munda'wat*: to receive, accept, take over; Receiver (see p. 41 and p. 6).
- Mundi'lig*: beam of Ifugaw house (see p. 6).
- Mumba'ud*: to warp (see p. 5); Warper (see p. 41).
- Munti'yong*: to twirl, to spin, applied to the spindle; Spinner (see p. 41).
- Muntoba'yon*: to use the spindle; User of the spindle (see p. 41).
- Munwa'he*: to wind yarn on the standing loom (*pala'dang*) by going around it (see p. 33); Winder around the standing loom (see p. 41).
- Munwala'ngan*: Winder into skeins (see p. 41).
- Nabba't*: broken because of tension or jerking, applied to threads (see p. 7).
- Nabobo'dan*: provided with bindings or windings (see p. 34).
- Nabo'kyag*: expanded, applied to cotton (see p. 1).
- Nada'it*: joined by stitching.
- Nabodho'd*: tightly woven, beaten up (see *hodhodo'na*, p. 7), applied to the picks.
- Nakyu'm*: tightly warped or woven, applied to the strands (see p. 28).
- Nalpita'n*: hemmed (see p. 31).
- Napae'wet*: asymmetric, askance, slanting, applied to designs (see p. 13).
- Napaya'kan*: winged; *linu'hhong an napaya'kan*: winged mortar design (see p. 15).
- Natala'kid*: skeined, divided into skeins (adjectival form of *tala'kid*).

- Nati'lup* : doubled, applied to yarn (see p. 4); brought together in winding operation: *opa't di nati'lup* : quadrupled.
- Ngum'e* : fringes of geestrings (see p. 20).
- Nibalah-i'we* : double-twined (see p. 20).
- Nibidi'bid* : twined, applied to threads (see p. 20).
- Nibi'kgut* : knotted (adjectival form of *hi'kgut*, see p. 30).
- Nihu'klub* : double-twined, warp threads intertwined by double pick (see p. 20).
- Nu'tnut* : conveys the idea of removing with the fingers something which is enveloped; stem of *nutnu'ton* (see *nutnu'ton*).
- Nutnu'ton* : to clear of seeds (namely cotton) (see p. 1).
- Oba'n* : carrying blanket, babies' blanket (see p. 18).
- Odo'gna* : lit., its back; right side of fabric (see p. 10); back of sword, i.e., the side which is not sharp (see p. 5).
- Olo'ng* : nose; stem of *inolo'ng* (see *inolo'ng*).
- Pa'gpag* : complex design on *ga'mong* blankets (see p. 13); also called *pinagpa'gan* (q.v.).
- Pagpa'gan* : to beat repeatedly with a stick (see p. 13).
- Paka'n* : to feed, applied to the gape (see p. 7); stem *kan*, to eat, with prefix *pa*, to cause to.
- Pala'dang* : standing loom used for warping strands that will form the design stripes before they will be dyed (see p. 32); stem *la'dang*(?) with prefix *pa*, implying order, allowance, see *inla'dang*.
- Pati't* : knob, button, knob of spindle (see p. 2); also stem of *pina'ttit* (q.v.).
- Pa'yak* : wing; stem of *napaya'kan* (see *napaya'kan*).
- Pinagpa'gan* : stem *pa'gpag* (see *pa'gpag*) with infix *in* and suffix *an* : "what has been beaten repeatedly" or "marks made by beatings."
- Pinala'ngyu* : design in *inla'dang* blankets and *gami't* skirts (see p. 36).
- Pina'ttit* : stitched knob-like design (knob of a gong) on geestrings (see p. 21).
- Pini'wa* : geestring with special design stripes (see p. 22 and p. 38).
- Pingko'l* : mud heap in rice paddies on which cotton is grown (see p. 1).
- Pinu'dum* : ball of yarn, also called *pu'dum* (without infix *in*) (see p. 4).
- Pinu'hba* : hip bag, white with black stripes (see pp. 28-31).
- Pinu'yyok* : black yarn, its black color having been obtained by the mud dye (see p. 3).
- Pol-o'g* : plant whose bark contains fibres which can be spun (see p. 1).
- Pona'd* : stem of *ponado'n* and *mumpona'd* (q.v.); conveys the idea of stretching; also little sticks used to pull up or stretch loose threads of dyed design stripes, in order to correct defects (see p. 34).
- Ponado'n* : to stretch, namely the chain (see p. 8).
- Pu'dum* : see *pinu'dum*.

- Pudu'non* : to wind the yarn into balls (see p. 4).
Pudu'nan : sort of winding wheel (see p. 4).
Pu'lgí : conveys idea of twirling; stem of *pulgi'yon* (see *pulgi'yon*).
Pulgi'yan : upper end of spindle (see Fig. II).
Pulgi'yon : to make the spindle twirl (see p. 2).
Puli'pul : conveys idea of twisting with thumb and index fingers (see *ipuli'-pul*).
Pumbinungbu'ngan : term used for the *bula'lo* that runs in the middle of an *ado'l* stripe (see p. 34).
Pun-aba'n : bamboo rod to which the head rod (*ulu'wan*) is attached (see p. 5).
Pun-hau'dan : basket or bowl with ball used in warping by helper (see p. 6).
Pungul-u'nan : heddle rod (see p. 3).
Putu'na : lit., its stomach; stomach of textile or fabric, i.e., the wrong side.
Pu'yyok : mud; stem of *pinu'yyok* (see *pinu'yyok*).
Tado'mna : lit., its sharp edge; applied to sharp edge of sword (see Fig. V).
Taga'ktag : geestring with dyed designs on stripes (see pp. 51-53).
Ta'gu : man; stem of *tina'ggú*, *tinata'ggú* (q.v.).
Ta'kang : gape (see p. 10).
Takda'ng : copper wire ring of hip bags (see p. 31).
Takdo'g : conveys idea of standing erect, rising; standing stitch: sort of decorative stitch used in joining two pieces of fabric (see, for example, p. 25).
Tala'kid : skein (see p. 3 and here and there in text).
Tallo' : star, morning star; stem of *tináltallo'* (see *tináltallo'*).
Talu'ngtung : woven border piece or band of blankets (see p. 10 and here and there in text); the term is used also for the fringes of the band (see *ha'bong*).
Tanta'n : double thread twisted to fibres of bamboo needle (stem *ta'nut*, suffix *an* causes syncopation of *u*) (see p. 8).
Ta'nut : bamboo needle (see p. 8).
Tapa'ng : red yarn (see p. 4).
Ta'yyum : indigo; stem of *tina'yyum* (Ilokano word).
Te'te : ladder; stem of *tinétete'te* (see *tinétete'te*).
Tiktik-u' : zigzag decorative stitch on geestrings (see p. 21).
Ti'lup : brought or drawn together; stem of *nati'lup* (see *nati'lup*).
Tina'g-e : thread shot through a gape obtained by raising the even threads of the chain (stem *ta'g-e* to be high, with verbal infix *in*) (see p. 8).
Tina'ggú : little man design in stripes of blankets and other textiles (see p. 15, p. 21, p. 36).
Tináltallo' : star design on woman's belt (see p. 28).

- Tinanno'ng*: white geestring (see p. 21).
Tinapa'ng: red yarn (see p. 4).
Tinata'ngu: reduplicated form of *tina'ngu* (see *tina'ngu*).
Tina'yum: dark blue yarn bought from outsiders (see p. 4).
Tinétete'te: ladder design on blankets (see p. 15).
Timi'kku: zigzag design on *kupi'ling* and *taga'ktak* geestrings (see p. 40).
Tini'ppa: design in border stripes of *pimi'wa* geestrings and stripes of *kupi'ling* and *taga'ktak* geestrings (see pp. 38 and 40).
Tino'nwe: term applied to *kupi'ling* and *taga'ktak* geestrings (see p. 38).
Toba'yan: spindle (see p. 2).
Toko'na: lit., its mouth, applied to opening of hip bags (see p. 31).
Tolge': generic name for skirts (see p. 23).
Topo'ng: string used to set up weaving loom before warping (see p. 6).
Tu'bong: bamboo pipe; stem of *tubo'ngan* (see *tubo'ngan*).
Tubo'ngan: bamboo rod of Ifugaw loom raising all odd threads (see pp. 5, 6, etc.).
Tukli'ng: cotton, darker than *ka'po* (see p. 1).
Tu'kkak: decorative stitch or frog designs on geestrings (see p. 21).
Tu'kudna: lit., its post(s), applied to posts of standing loom, *pala'dang* (see p. 32).
Ugadi'w: small fish; stem of *inugadi'w* (see *inugadi'w*).
U'ki(b): pericarp, husk, (of cotton, see p. 1).
Uki'hana: lit., she removes the pericarp (of the cotton bolls, see p. 1).
U'lo(b): blanket, generic name (not in text).
U'log: stem of *inu'log* or *inul-u'log* (q.v.).
U'luna: lit., its head, applied to upper part of *binongo'gan* design (see p. 11); also stem of *ulu'wan* (see *ulu'wan*).
Ulu'wan: heading-rod of Ifugaw loom, i.e., rod at the head of the loom (see p. 4).
U'pud: term sometimes used to designate a white geestring, although it is the proper term for the big pointed shell of a belt ornament (not in text).
Uwa'ngna: hole, perforation (made in board of *pala'dang* loom (see p. 32); lit., its hole(s).
Uwe': liana, rattan (see Fig. V).
Wala'ngan: apparatus used in skeining (see pp. 2-3).
Wano'h: geestring, generic term (not in text).
Wi'ngi: stem conveying idea of turning the head sideways; term used for black stripes at the side of a colored stripe.
Yagya'gan: to shake (stem *ya'gyag*, shake, with infix *an*); to shake the skeins which have been dipped in yellow powder (see p. 3).



Fig. I: Children weaving and spinning

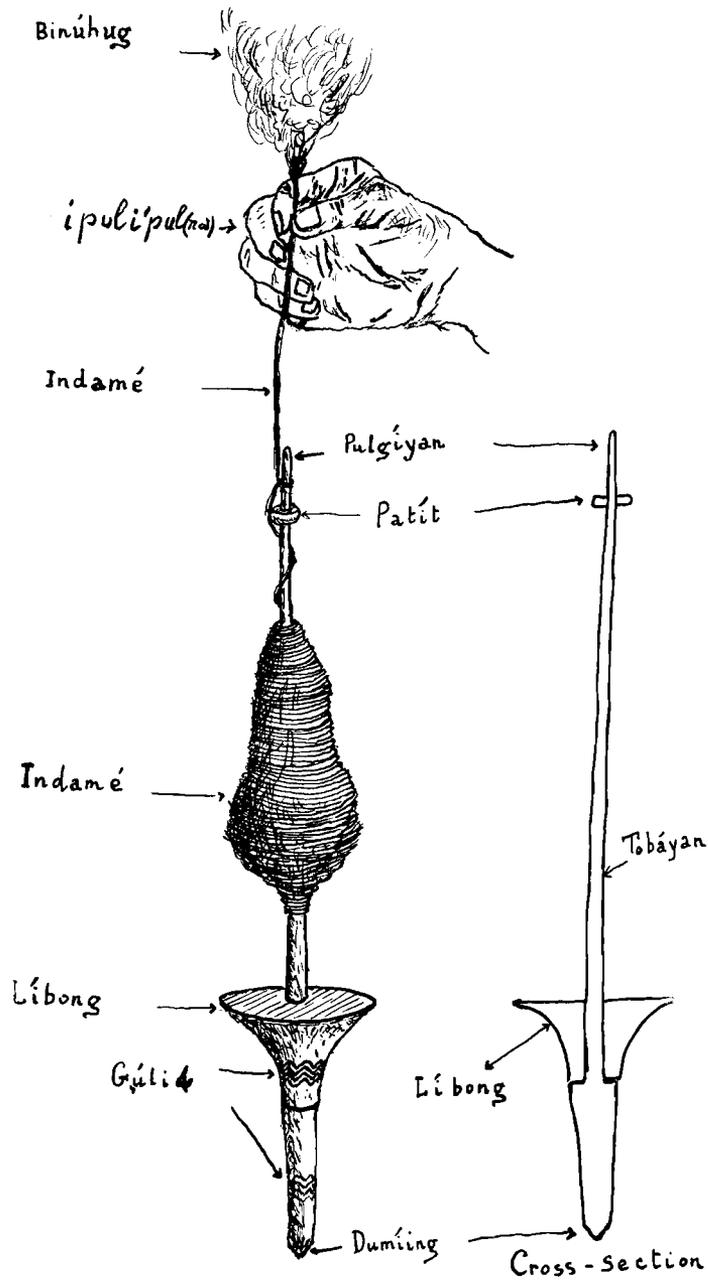


Fig. II: Tobayan.

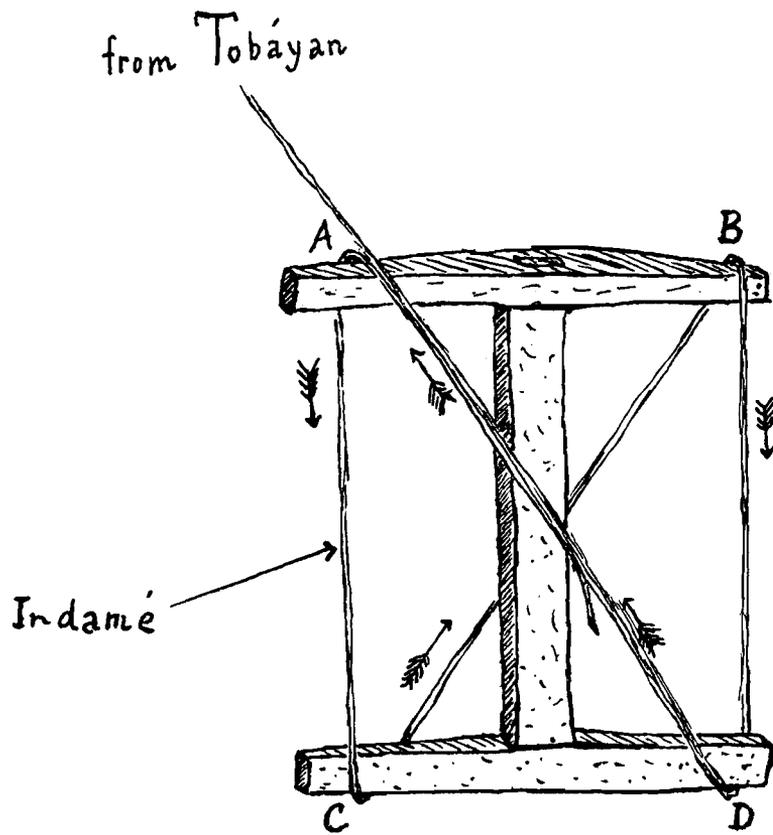


Fig. III: *Walangan*

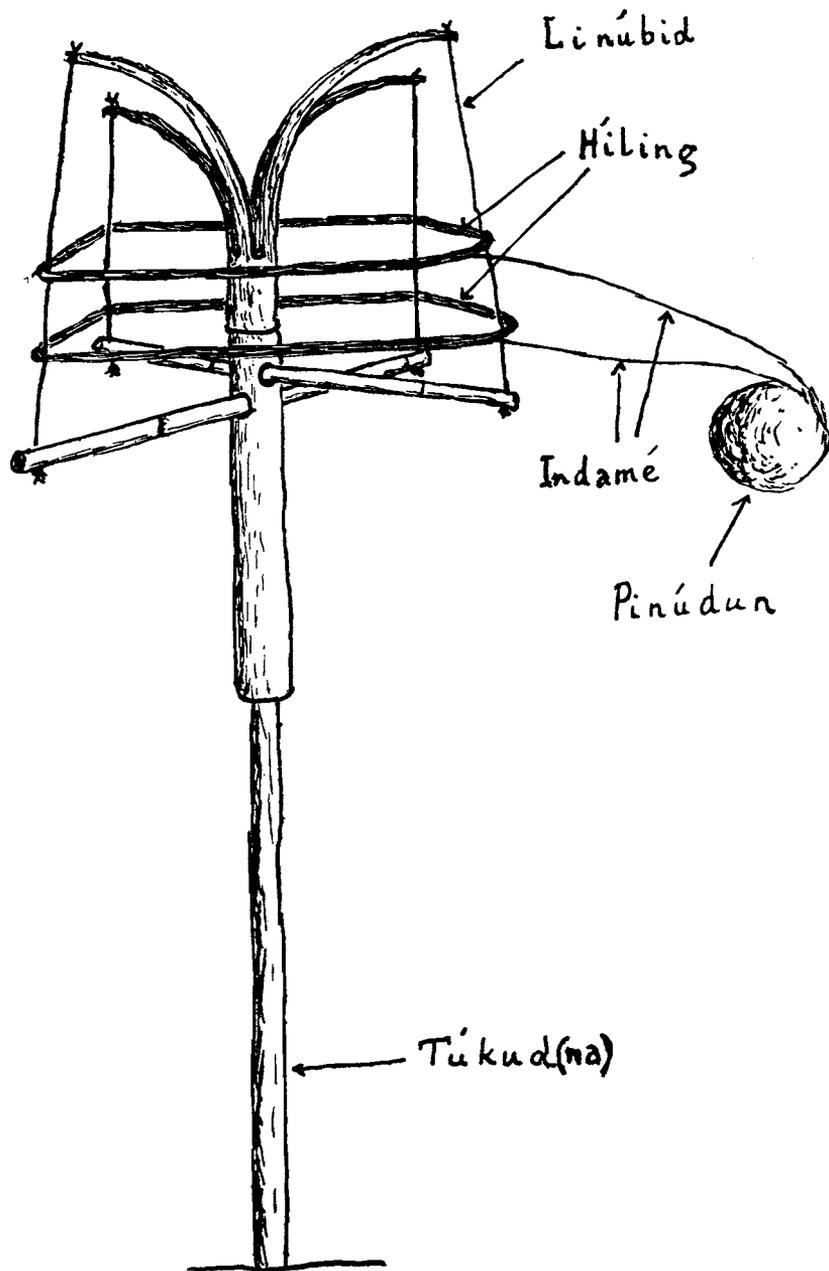


Fig. IV: *Pudínan*

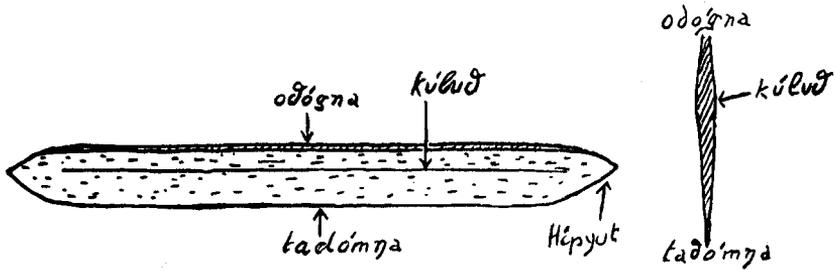


Fig. V: Bali'ga

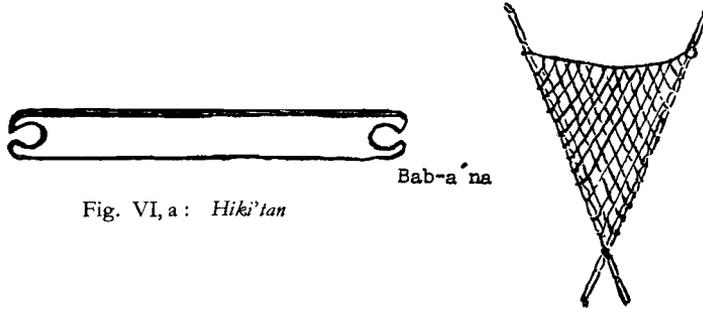


Fig. VI, a: Hiki'tan

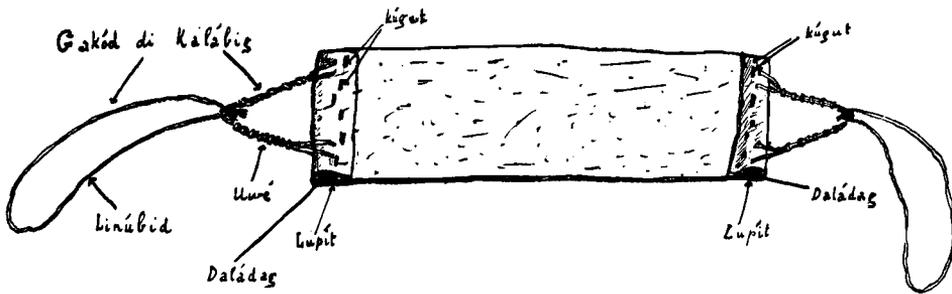


Fig. VI, b: Kalabig

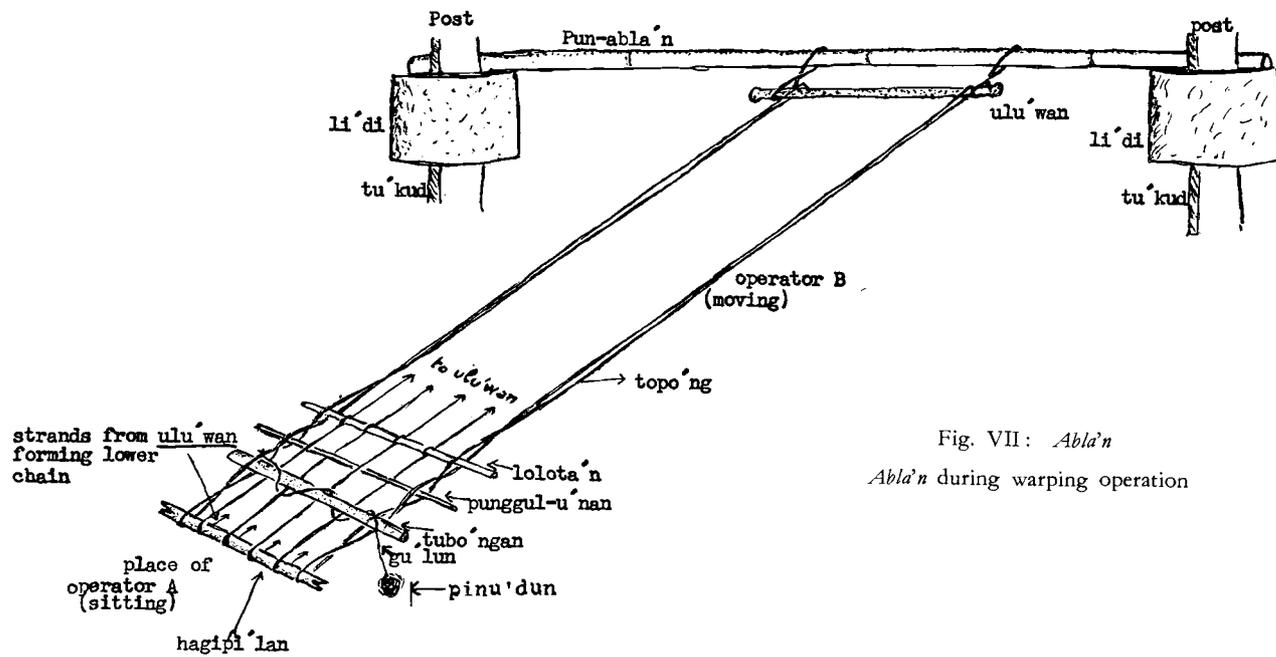


Fig. VII: *Abla'n*
Abla'n during warping operation

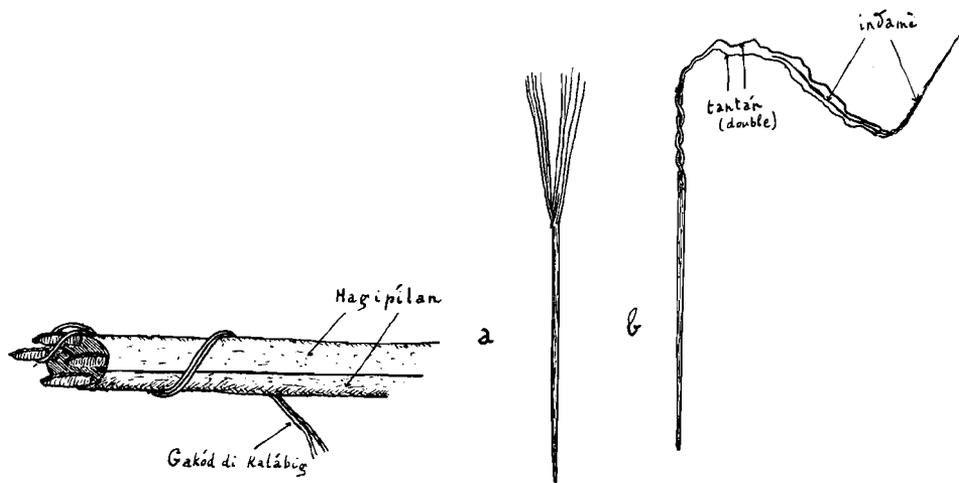


Fig. VIII: *Tánut* (needle)
 a: without thread
 b: with *tanta'n* and *indame'* not yet fully twisted

Fig. IX: Section of "Págpag" in "Ga'mong"-blankets



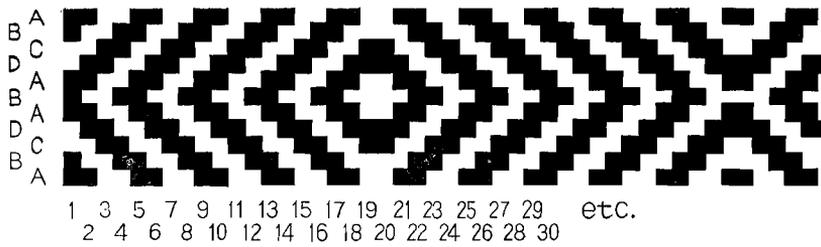


Fig. X: Section of *Hinu'igi*

Threads to be raised are taken from all the warp threads: *bini'tag* (odd) and *ginu'l-un* (even).

Set A: threads 3-4, 7-8, 11-12, 15-16, 19-20, etc.

Set B: threads 2-3, 6-7, 10-11, 14-15, 18-19, 22-23, 26-27, 30-31, 34-35, 38-39, 42-43, etc.

Set C: threads 1-2, 5-6, 9-10, 13-14, 17-18, etc.

Set D: threads -1, 4-5, 8-9, 12-13, 16-17, 20-21, 24-25, 28-29, 32-33, 36-37, 40-41, 44-45, etc.

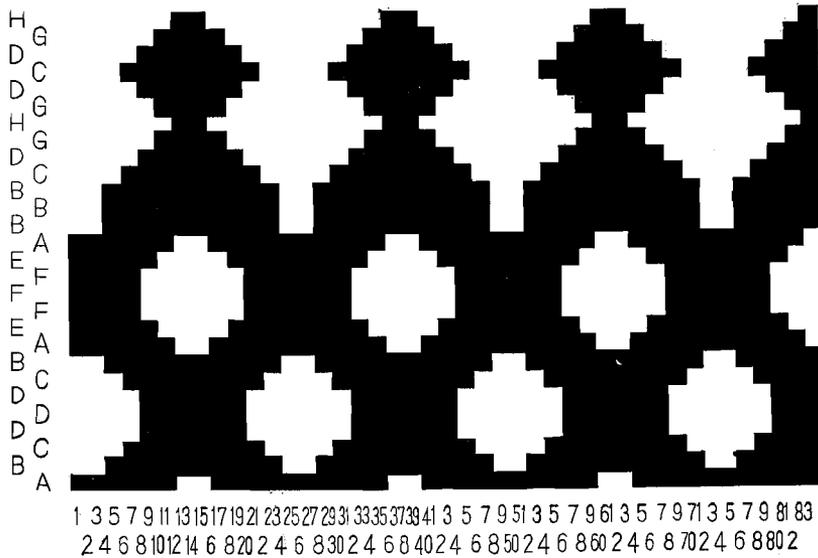


Fig. XI: Section of *Binongo'gan*

Only *bini'tag* threads are raised for the design:

Set A: threads 14-15, 37-39, 61-63, 85-87, etc.

Set B: threads 1-3, 25-27, 49-51, 73-75, etc.

Set C: threads --3-5, 23-25-27-29, 47-49-51-53, etc.

Set D: threads --1--3-5-7, 21-23-25-27-29-31, 45-47-49-51-53-55, etc.

Set E: threads 11-13-15-17, 35-37-39-41, 59-61-63-65, etc.

Set F: threads 9-11-13-15-17-19, 33-35-37-39-41-43, 57-59-61-63-65-67, etc.

Set G: ---1-3-5-7-9, 19-21-23-25-27-29-31-33, 43-45-47-49-51-53-55-57, etc.

Set H: ----1-3-5-7-11, 17-19-21-23-25-27-29-31-33-35, 41-43-45-47-49-51-53-55-57-59, etc.

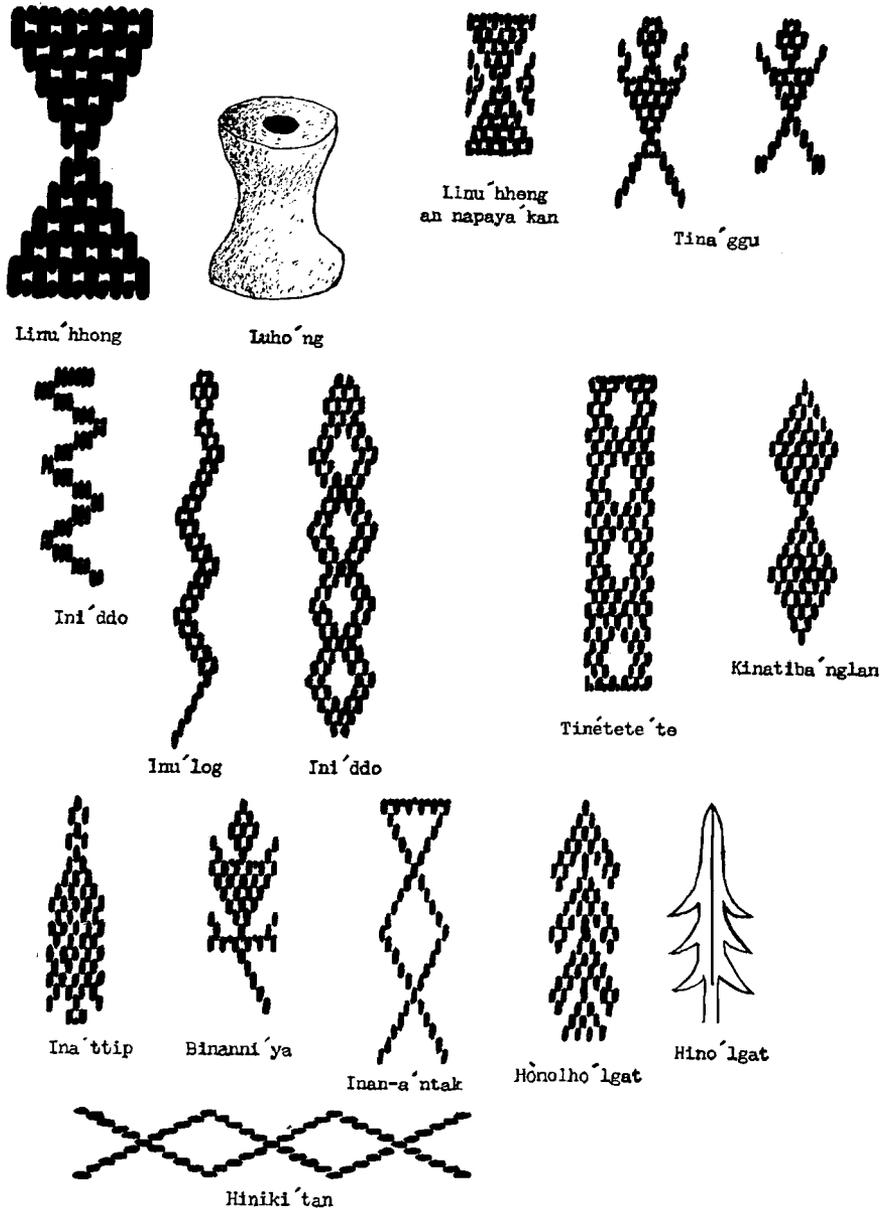


Fig. XII: Designs of *Baya'ong* Blankets or of *bali'ngbing* of *Ga'mong* Blankets

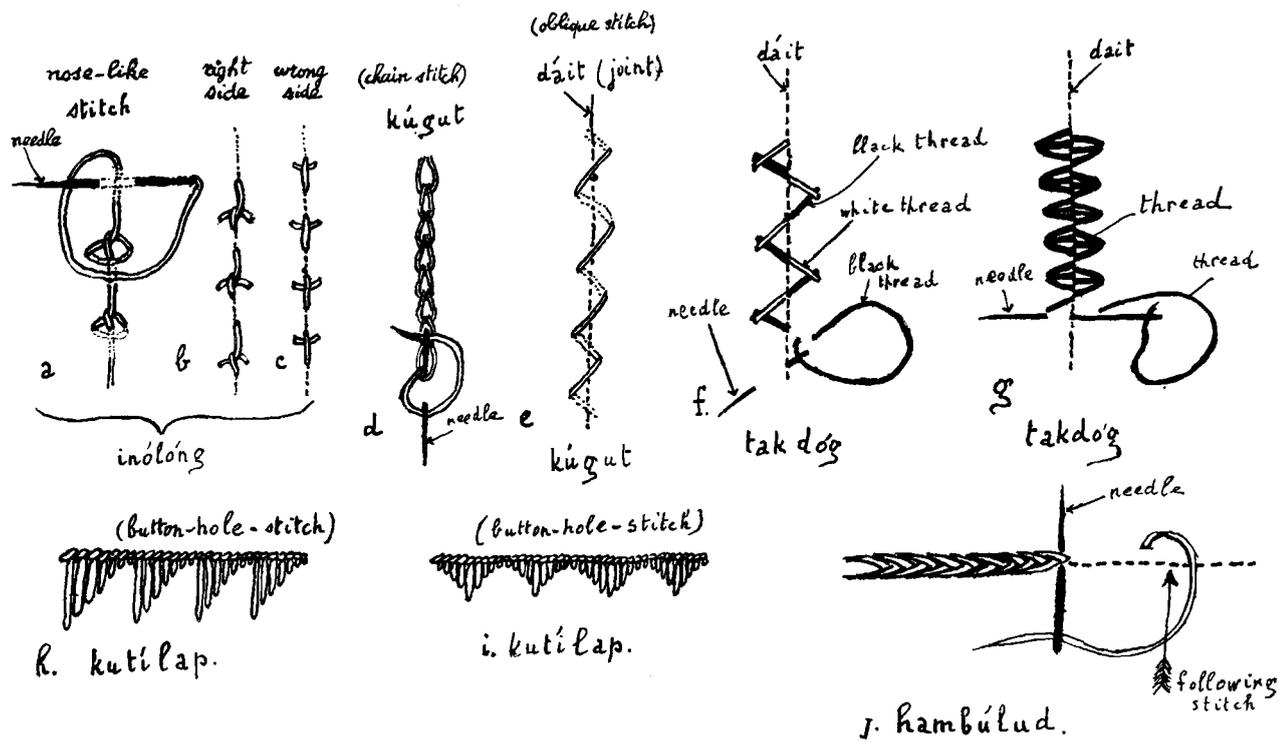
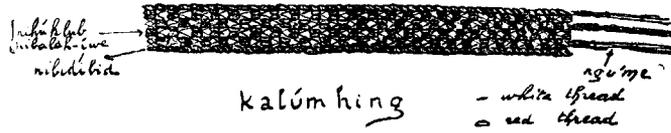


Fig. XIII: Decorative stitches



Cross Section

- warp threads
- red threads
- white threads

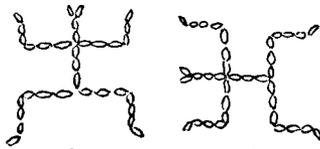
Fig. XIV : *Kalu'mbing*



Tiktik-u'

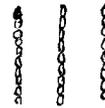
(chain stitch : *ku'gut*)

All called : *tu'kkak*
 except *tiktik-u'*



Tina'egu

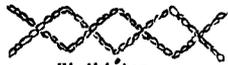
Binala'bag
 an tina'egu



Inan-a'ntak



Inan-a'ntak



Hiniki'tan



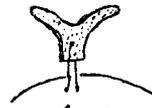
Himukuhu'kup



Hu'kup basket



pina'ttit



Pati't of gong

Fig. XV : Decorative Stitches on Geestrings

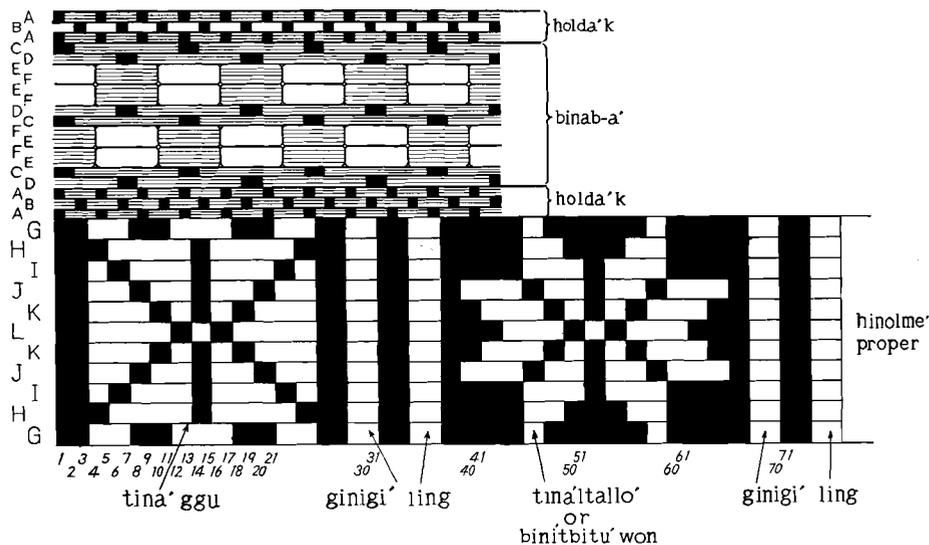


Fig. XVI: *Hinolme'*

- black : all warp threads in *holda'k* and *binab-a'* - all double warp and weft threads in *hinolme'* proper - all double
- ▨ red : all weft threads : double in *holda'k*
double in picks C & D of *binab-a'*
quadruple in picks E of *binab-a'*
quadruple in *hinolme'* proper
- yellow : all weft threads ; in *holda'k* : double
in *binab-a'* (F) and in *hinolme'* proper : quadruple

The following *hinolme'* stripe will be woven with a red quadruple thread, but the order of the designs which in the above figure is "*tina'gggu-ginigi'ling-tina'tallo'*" will now be "*tina'tallo'-ginigi'ling-tina'gggu*", so that 6 other sets of threads must be raised.

Note also that, while the little star design is formed by the red or yellow weft threads, the little man design is formed by the black threads of the warp and of the weft.

The *tina'gggu* design itself is not much of a little man, but the design is nevertheless so called.

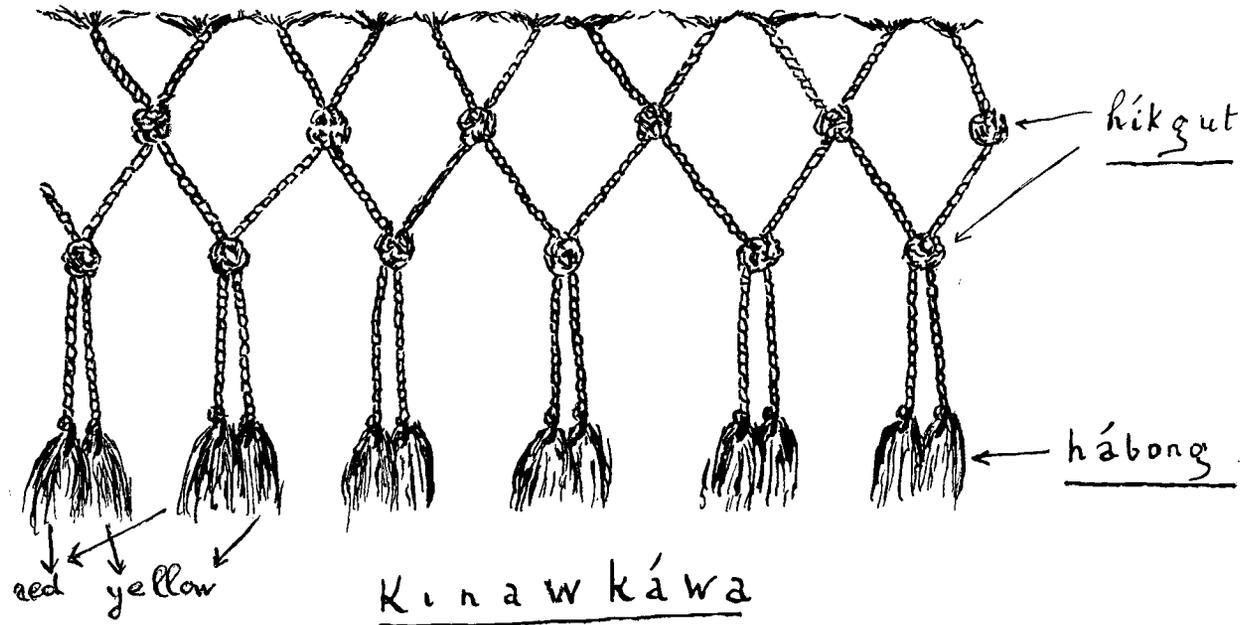
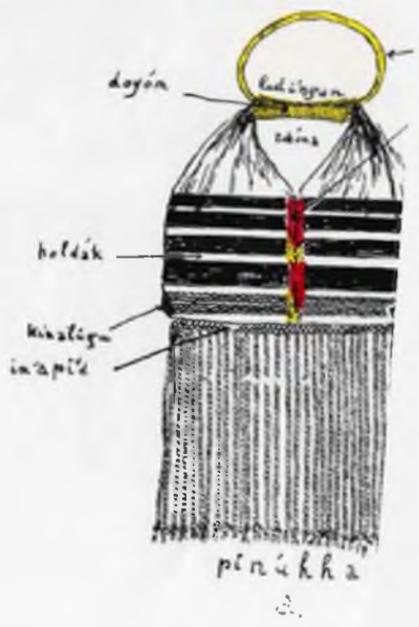


Fig. XVII.



d. Confection of





"pinukha" (and "ambayong")

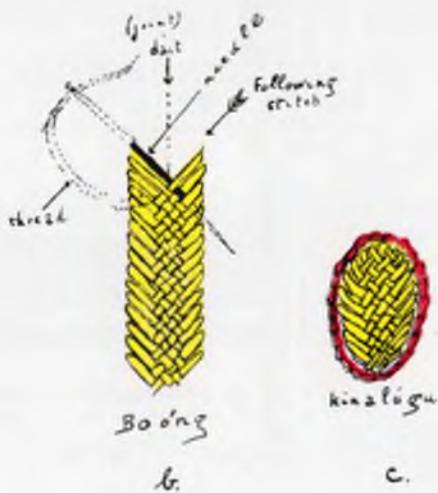


Fig. XVIII.

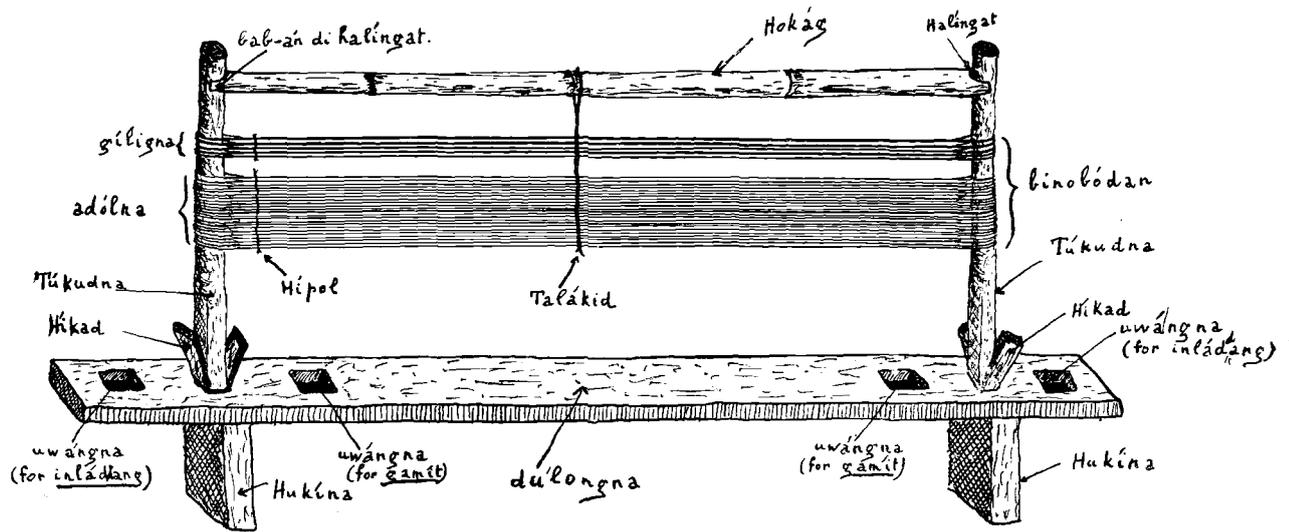


Fig. XIX: Pala'dang

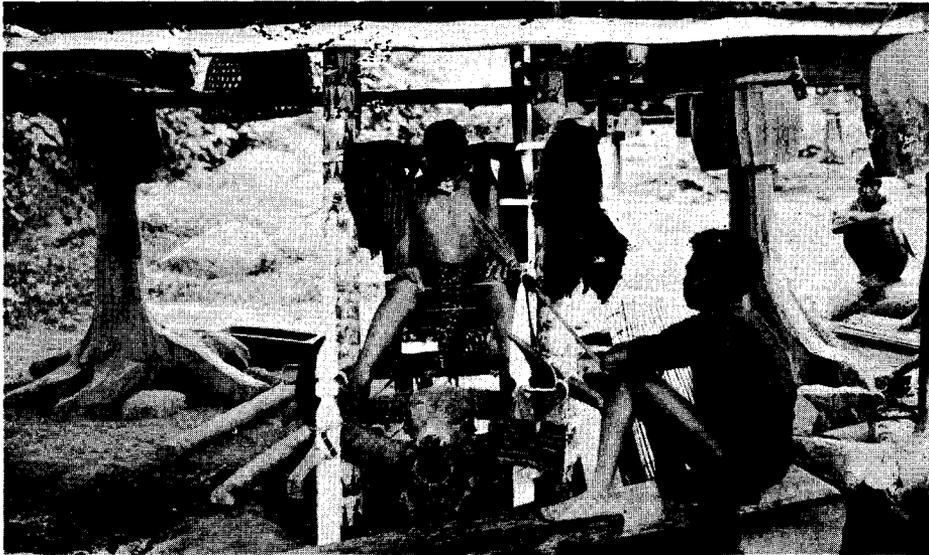


Fig. XX : Wealthy Ifugaw on the death-chair wearing a "kupi'ling" clout. A "pinu'bba" hangs at one of the buffalo-horns ; three "binubla'n" tie head and body to the chair ; two "bayjong" blankets hang on the death-chair. He sits on a "gimong" blanket.

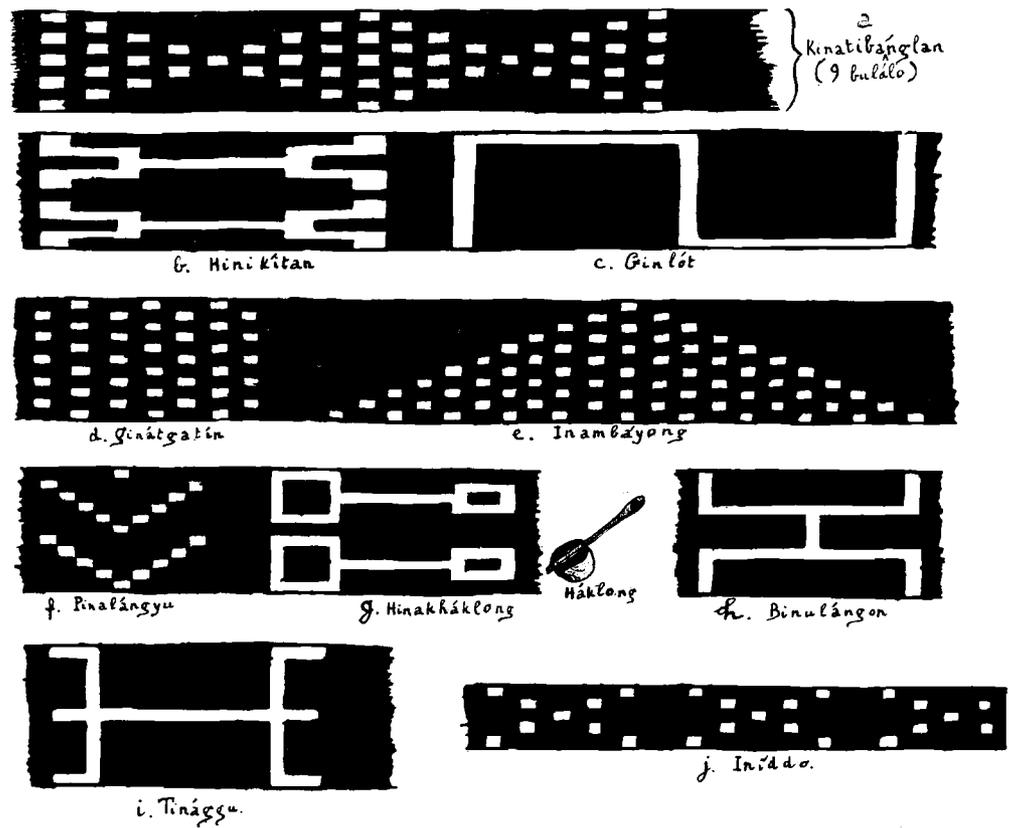
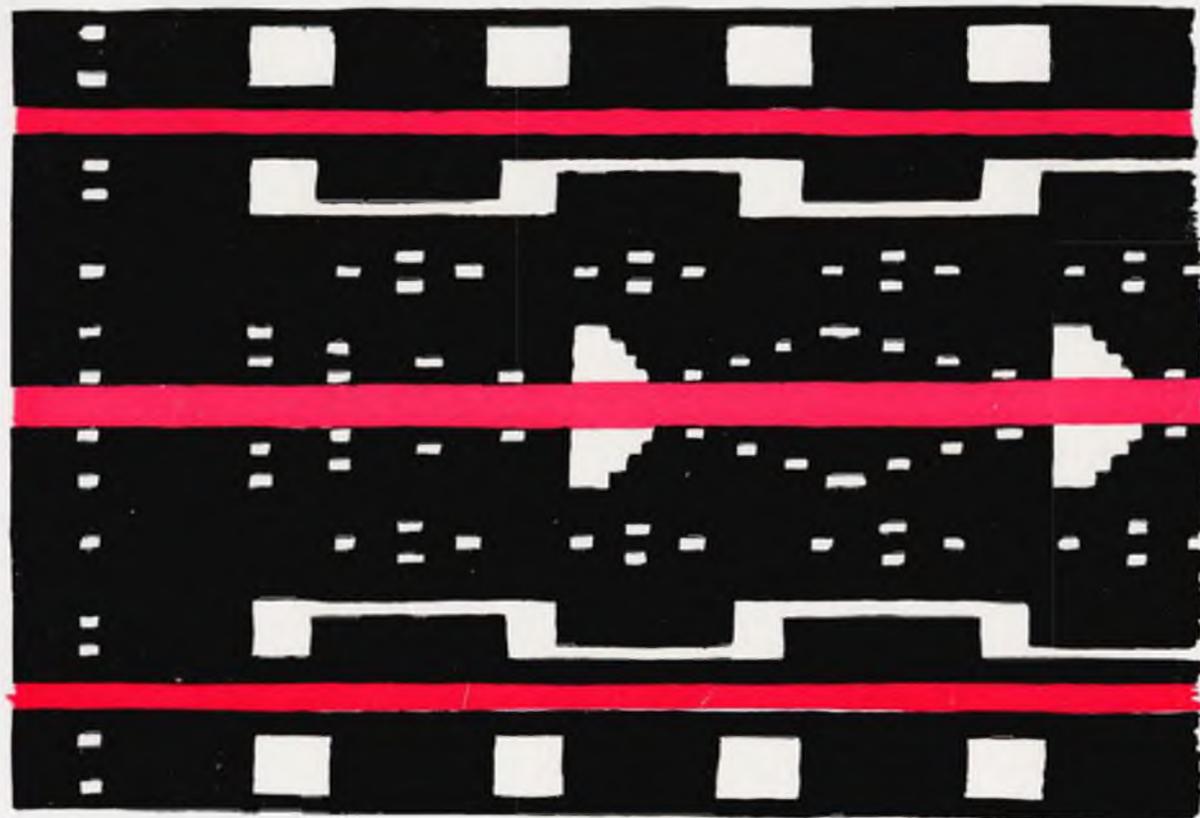


Fig. XXI: Designs in *Inla'dang* and *Gami't*

inan-a'ntak



Ha'bak
tin'kku
kin'ukuláp-e

binallátung

tiníppa

kúlhud

Inugad'w

Fig. XXII: Section of *dayu'de* of *Kupi'ling* Geestring