

## THE KAGO-UCHI

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During my second visit to Japan, in the autumn of 1971, I concentrated my attention on the braiding techniques (that is, oblique interlacements) which are practiced there by a small elite group of artisans. The craft is called "Kumi-Himo", meaning: the constructing of braids. The products of Kumi-Himo are presently limited exclusively to two parts of the traditional kimono, namely:

- 1.) the "obi-jime", a cord about 1.50 metres in length, which holds together the folds of the "obi" sash worn by the women, and which is tied in the front in a crossed (square) knot, and
- 2.) the "haori-himo", which are two ties, about 16 cm long, fixed to the "haori" (outer garment) by means of a braided ring located at their extremity.

The lateral parts of the haori fall vertically from the shoulders and are separated from each other by about 12 cm at chest height. Here the himo are tied and knotted by a crossed (square) knot. The men's himo are considerably longer and wider, and may be knotted using different knots in which the tassels are always directed toward the top instead of hanging in the European fashion.

In the course of my research, I happened upon a complex working-process, performed on a very specialised loom which, for all I could ascertain, is unique in the world.

The fabric is called "Kago-uchi" in Japan. "Kago", which means "basket", alludes to the structure and "uchi", which signifies "to strike", probably refers to the beating of the texture. By transposition, the word is used in a general sense as a synonym for many different products of Kumi-Himo. I believe that "Kago-uchi" has never been used for anything other than the men's Haori-Himo (see photo Fig. 1).

### *Description of the structure.*

Kago-uchi has a very particular feel — light and supple, somewhat elastic, but still firm. The warp is a many-stranded highly twisted silk yarn of excellent quality, S and Z twist alternating thread by thread.

Like all Haori-himo, it starts with an eye formed by an eight-strand four-ridge square braid to which 30 or 32 supplementary warp-threads

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<sup>1</sup>The Manual of Braiding Noémi Speiser, published by the author in 1983.

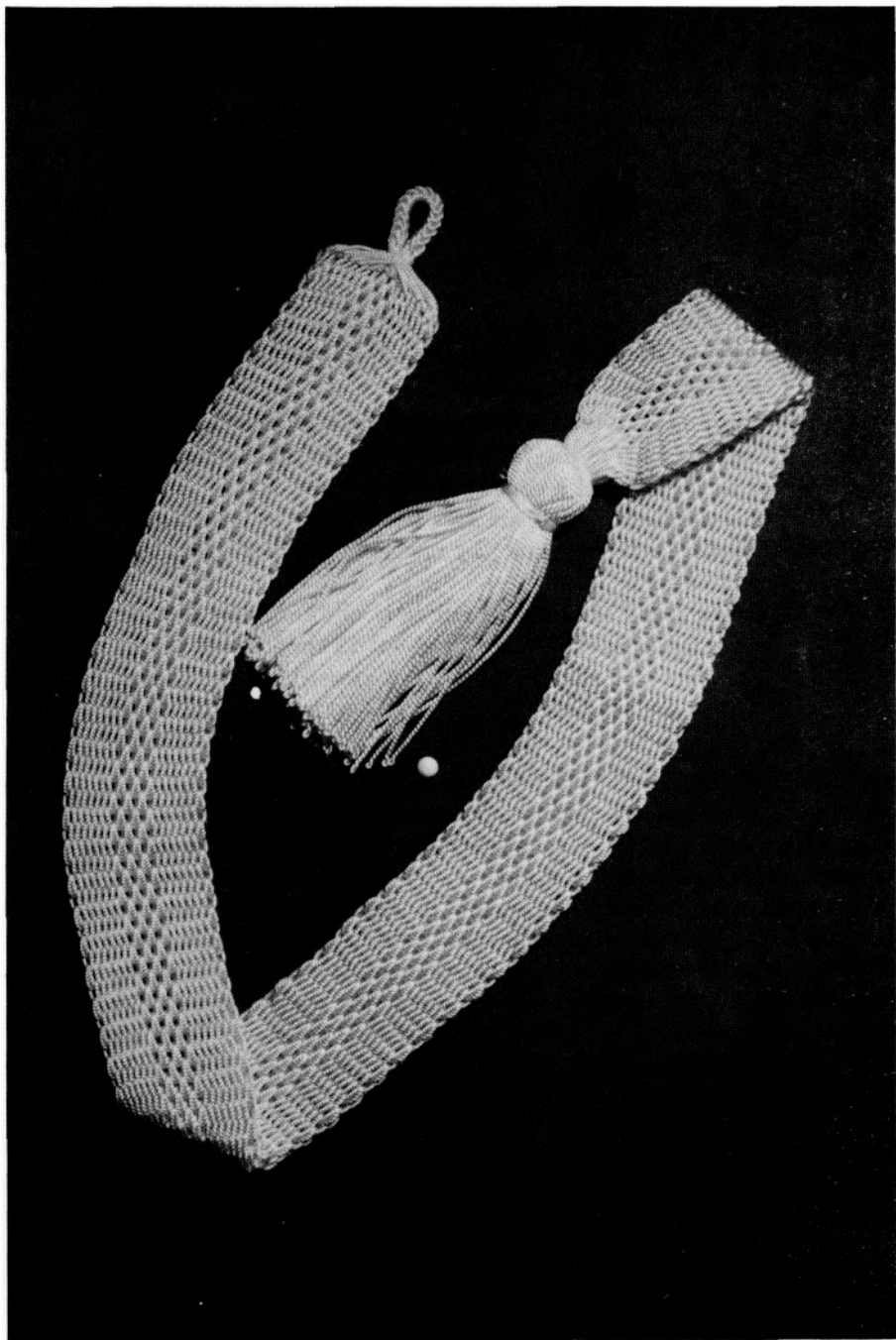


Figure 1. Photo of the braid.

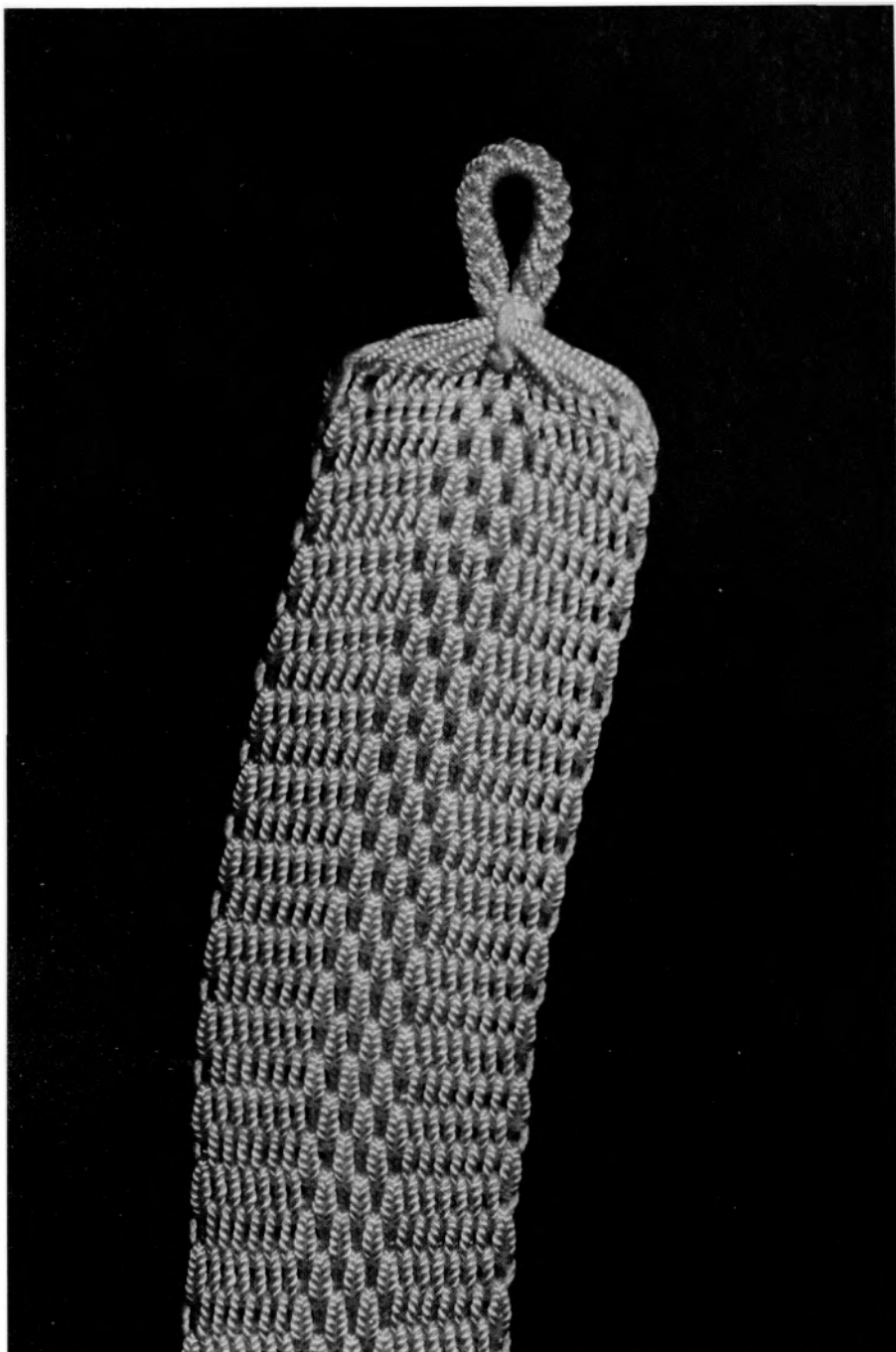


Photo of the braid.

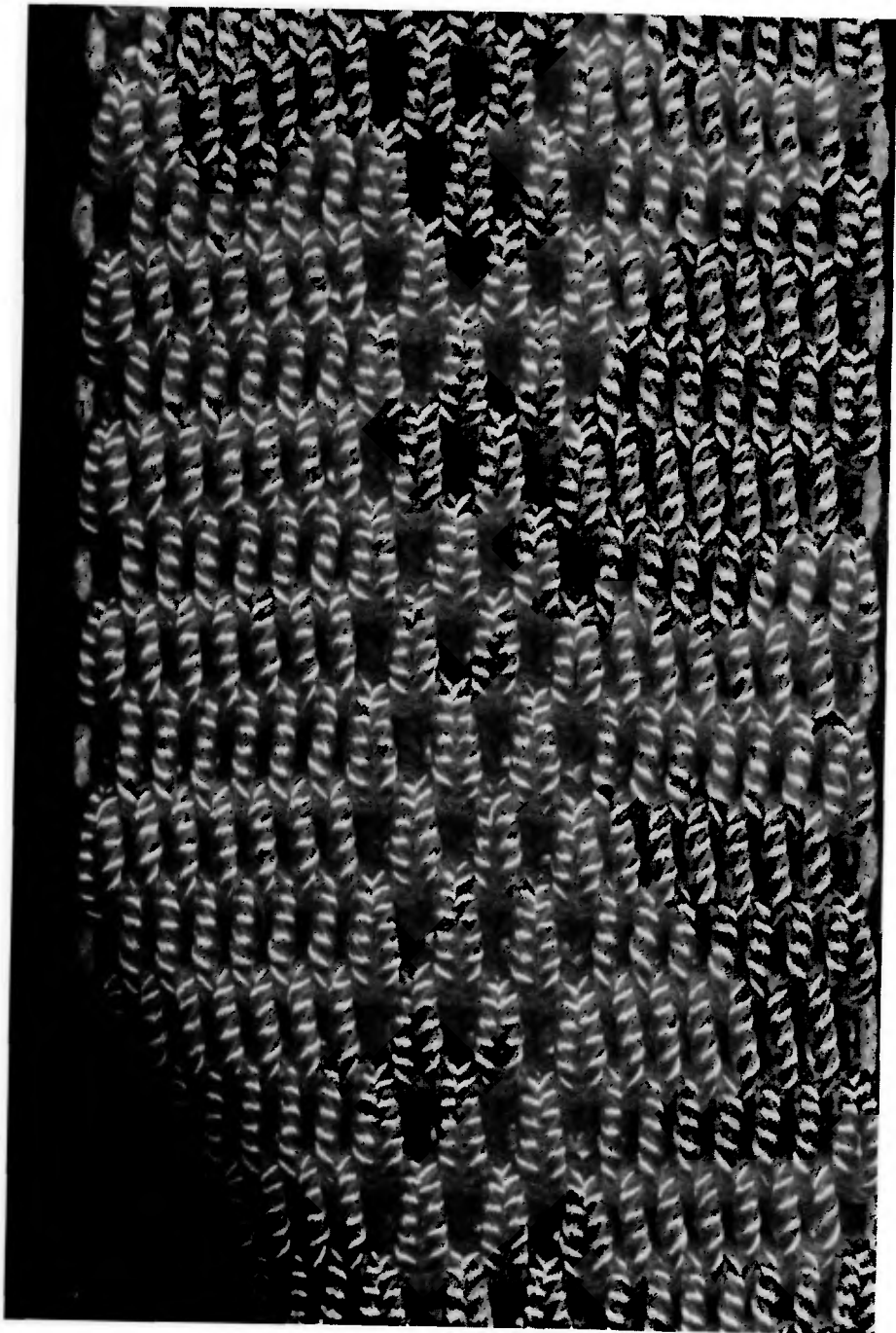


Photo of the braid.

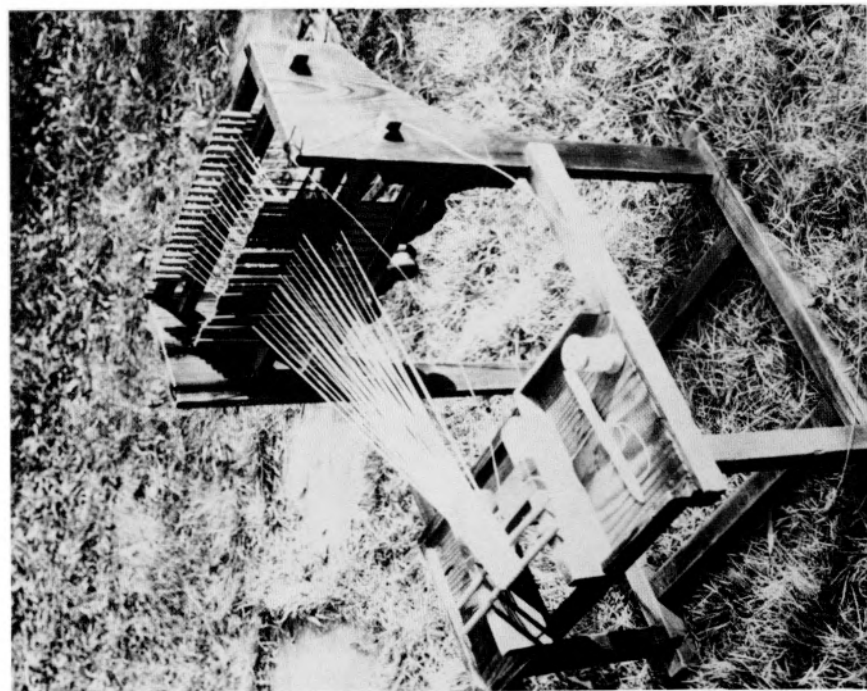
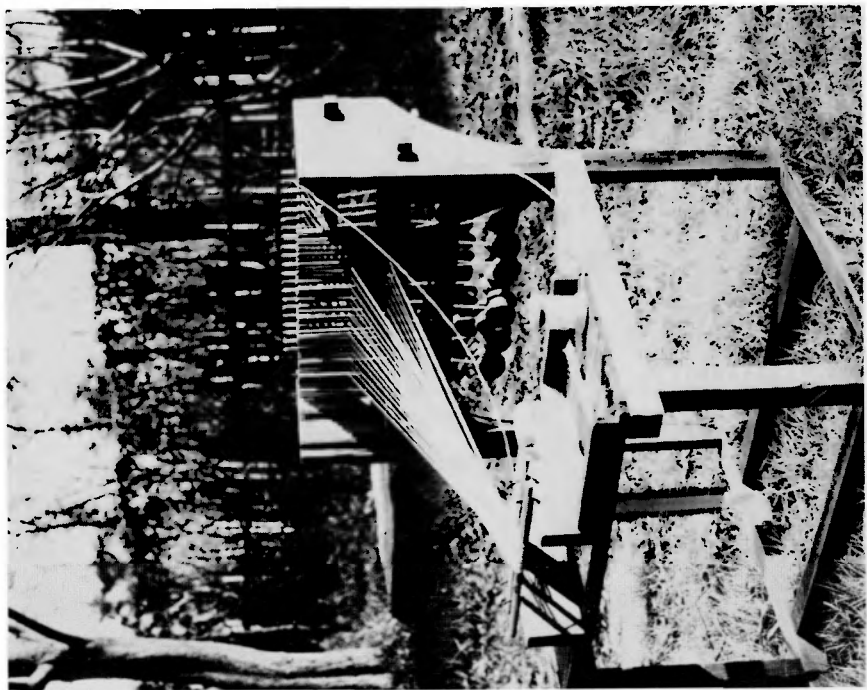
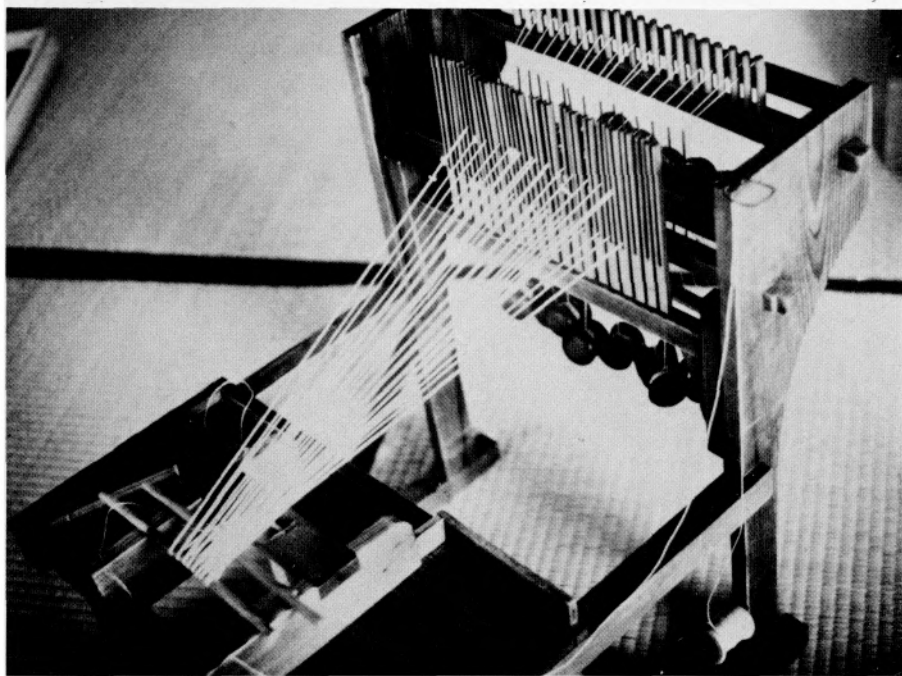
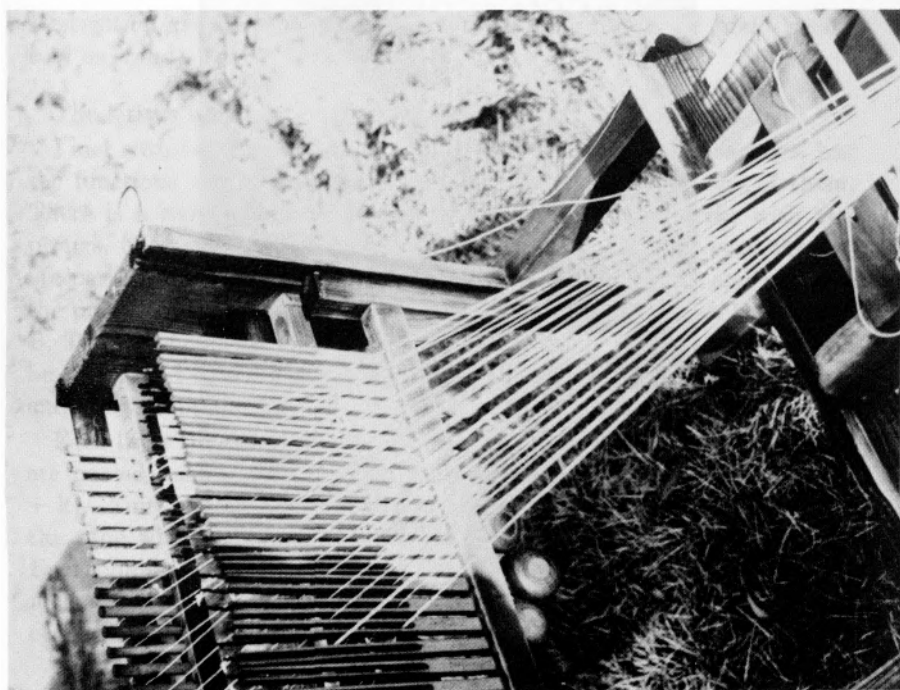
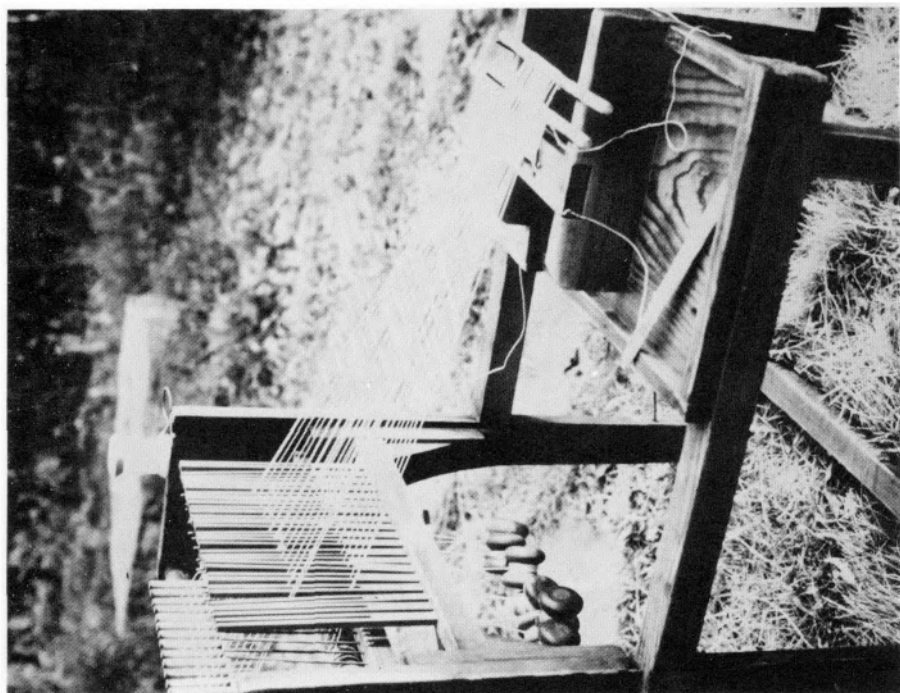
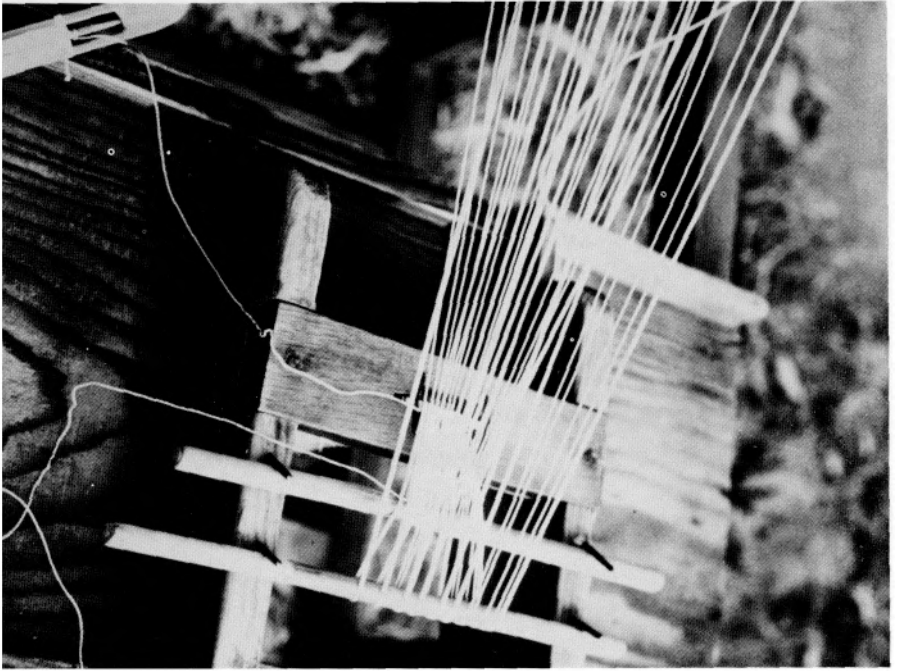


Figure 2. Several photos of the tool, taken from my slides.



Several photos of the tool, taken from my slides.





Several photos of the tool, taken from my slides.



will be joined. The woven length is about 40 cm and, at the other end, additional threads will be attached in order to form a tassle. All the pieces that I saw were white or ivory in colour.

The structure of Kago-uchi, though appearing in the context of "Kumi-Himo", i.e., *braiding*, should be called *woven* since it uses warp and weft, and the sheds are created by a mechanical process. The warp-threads run in parallel direction consistently, that is, there is no lateral warp-transposition nor any twining. Yet the warp is not rolled on a beam, but the threads are wound singly onto lead-weighted bobbins of the type which is commonly used in Japanese Kumi-Himo.

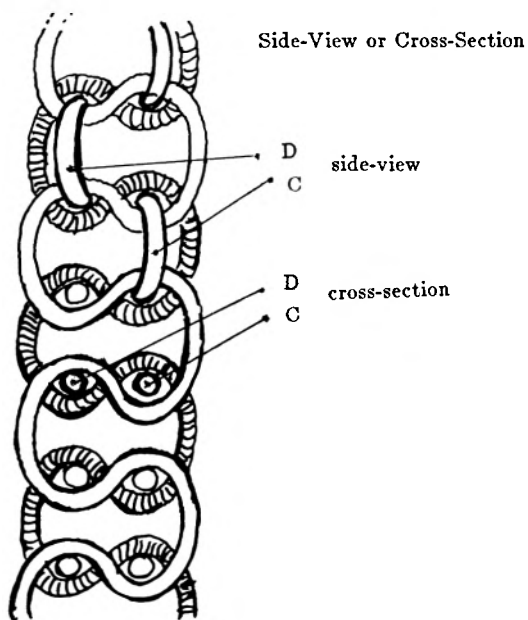
Two silk wefts, somewhat thinner than the warp-threads, are inserted along with a third "temporary" weft consisting of bamboo splinters. These will be removed once the finished Himo is taken from the loom. Before their removal the fabric has the appearance of a warp-faced rep; the wefts are completely covered on both faces by the warp-threads. When the bamboo splinters have been removed, the structure is in no way destroyed. On the contrary, the three-dimensional spaces formerly occupied by the splinters retain their shape. We may observe, in Fig. 3, that the two wefts run parallel on the same level, whilst the warp-threads, arranged one by one in two layers, run in opposite directions over and under them.

*Description of the loom, called "Kago-uchi dai" (the word "dai" means tool or stand).*

The letters in the following text refer to the Figures 4, 5, 6, 7.

I met with two types of looms. They differ slightly in appearance, but the functions are identical and therefore I describe only one of them. There is a rigid heddle consisting of a row of wooden forks with two prongs, fixed side by side on a cross-piece (Fig. 4a). The warp-threads are passed, one by one, alternately between two forks (A) and between the prongs of each fork (B). Thus, they are arranged in two layers A + B. The former layer remains permanently passive whilst the latter will be raised and lowered when the rigid heddle is positioned in an upper and a lower support (e + f).

Each layer then runs over a beam (g + h) and afterwards the threads are passed individually through holes in two freely suspended laths (i + k). Finally, they are wound onto lead-weighted wooden bobbins of the type which is commonly used in Kumi-Himo workshops (l + m). Each bobbin bears two adjacent threads — a trick which is doubtless meant to prevent the bobbins from spinning round or entangling with each other (Fig. 4b).



B warps A

Top-View

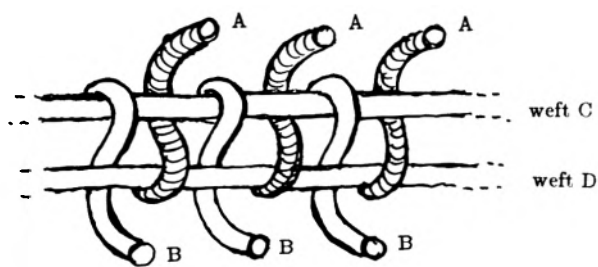


Figure 3. Side-view and top-view of the structure.

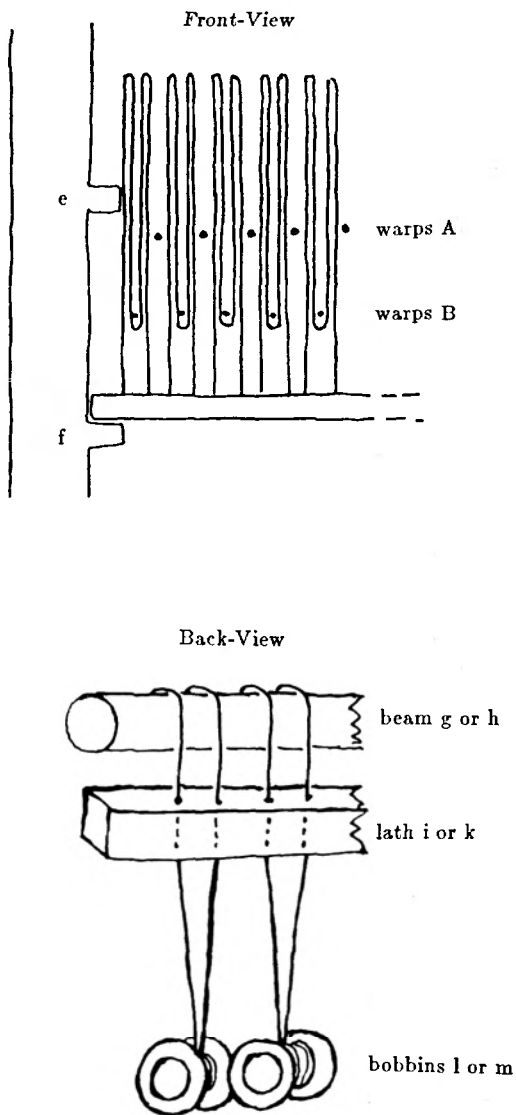


Figure 4. Rigid heddle.

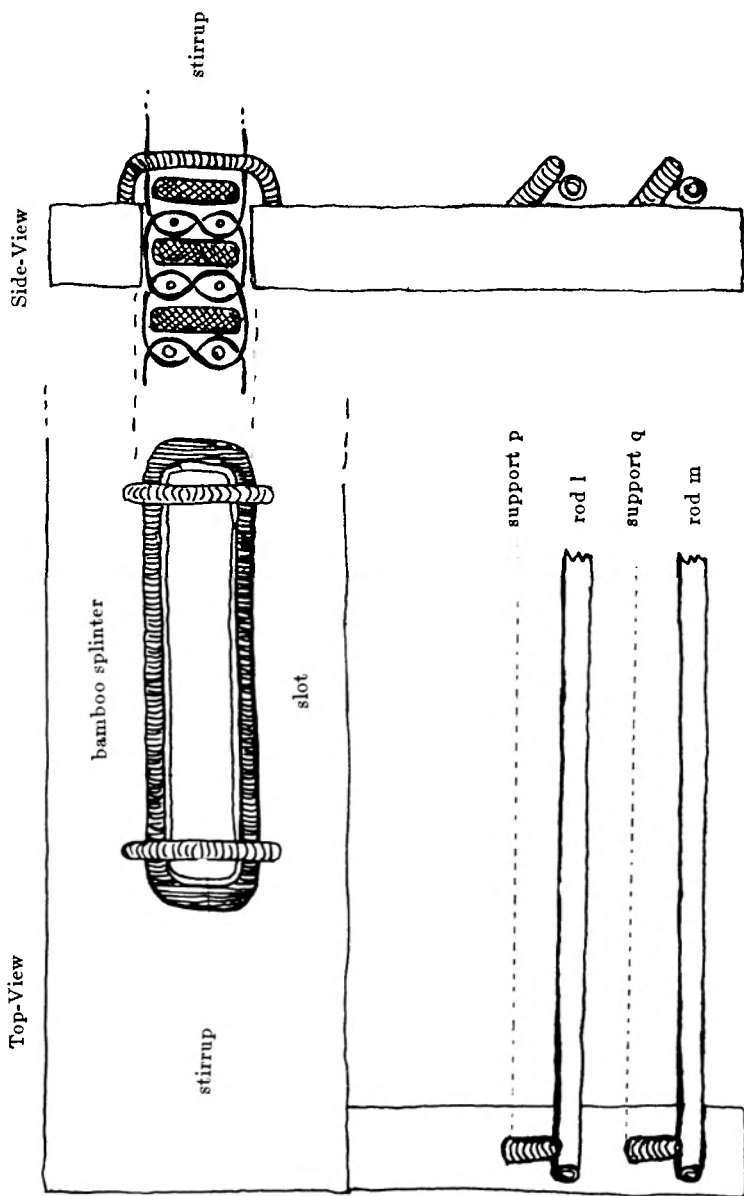


Figure 5. Top-view and side-view of the foremost (or front-) part of the loom.

The shed is not opened horizontally in the conventional way, but vertically, by loosening and drawing forward the layers individually, with the aid of rods  $n + o$ . The rods are placed temporarily into special supports  $p + q$ . The finished ribbon disappears vertically into a slot behind these supports (Fig. 5). This slot has a small metal stirrup on both sides, under which the bamboo splinter will be slid. This is supposed to block the ribbon by counteracting the traction exerted by the weight of the bobbins. Since no "beating" of the weft occurs, this will also contribute to the tightening of the weave.

You will understand from the following description that one of the wefts never enters a shed but is merely placed across the respective warp-layer. Therefore no second shuttle is needed. This weft is wound from a spool which is mounted on a side-beam.

*Description of the weaving process.*

1. Weft C is laid across warp-layer A, which forms an angle forward toward the weaver since it is drawn and positioned by rod  $n$  in support  $p$ .
2. The rigid heddle is lifted into support  $e$ . This means that warp-layer B is raised above A.
3. Layer B is drawn forward, with the aid of rod  $o$ , and positioned in the most forward groove. A rigid heddle is lowered into support  $f$ .
4. This picture is merely theoretical. The thread-tension of the warp-layer B will immediately press weft C against the threads of the warp-layer A and cause it to slacken and curl up and down.
5. With the point of the shuttle or with the aid of a chopstick, this weft will be slackened by making it curl up and down. Owing to the weight of the bobbins  $m$ , warp-layer B tightens, and thus a triangular "shed" is formed through which the shuttle with weft D is passed.
6. Weft C is now tightened. It slides backward and firmly depresses warp-layer A.
7. Rod  $n$  is removed. Owing to the weight of bobbins  $l$ , the warp-layer A slides rapidly backward, at the same time, catching weft D and pressing it firmly against warp-layer B.
8. The bamboo splinter is inserted between warp-layers A + B and pressed into the slot, where it will be held in position by the stirrups. Rod  $o$  is then moved from support Q to support  $p$ . Thus, it takes over the function of rod  $n$ .

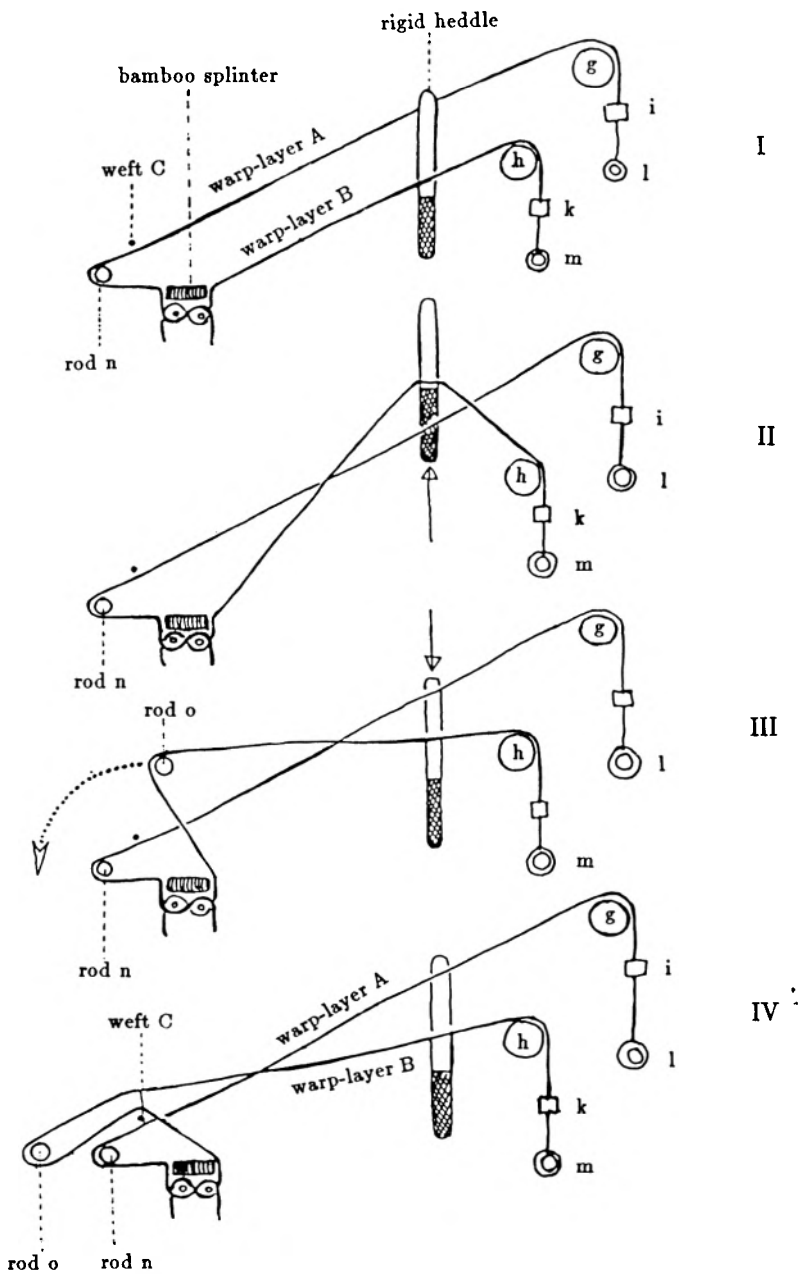
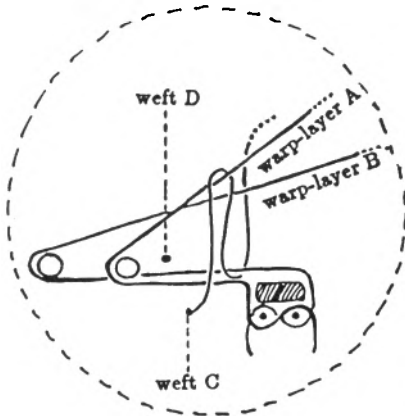
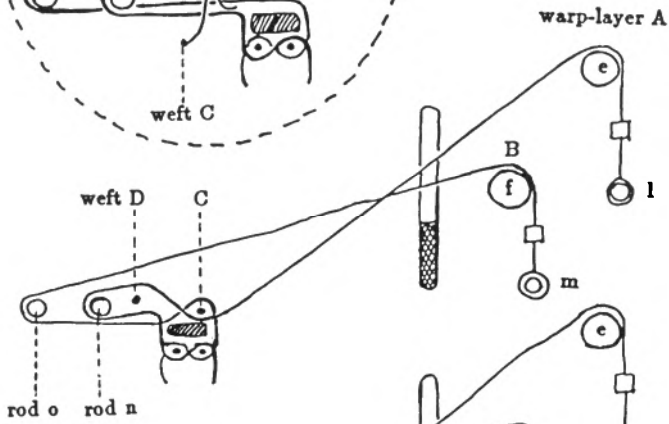


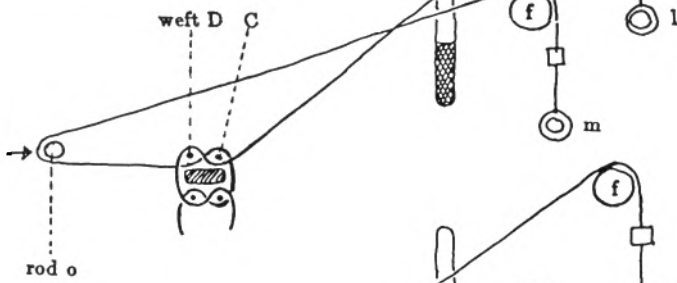
Figure 6. The working-process in side-view, Stages I to VIII.



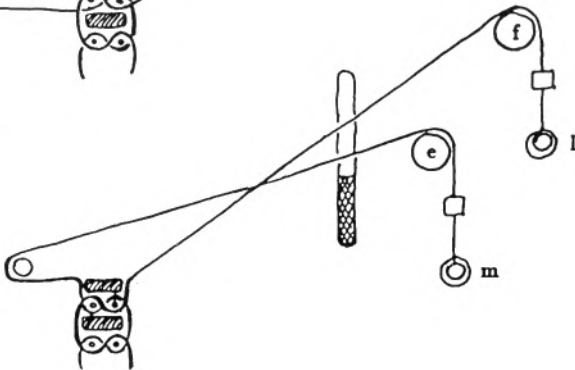
V



VI



VII



VIII

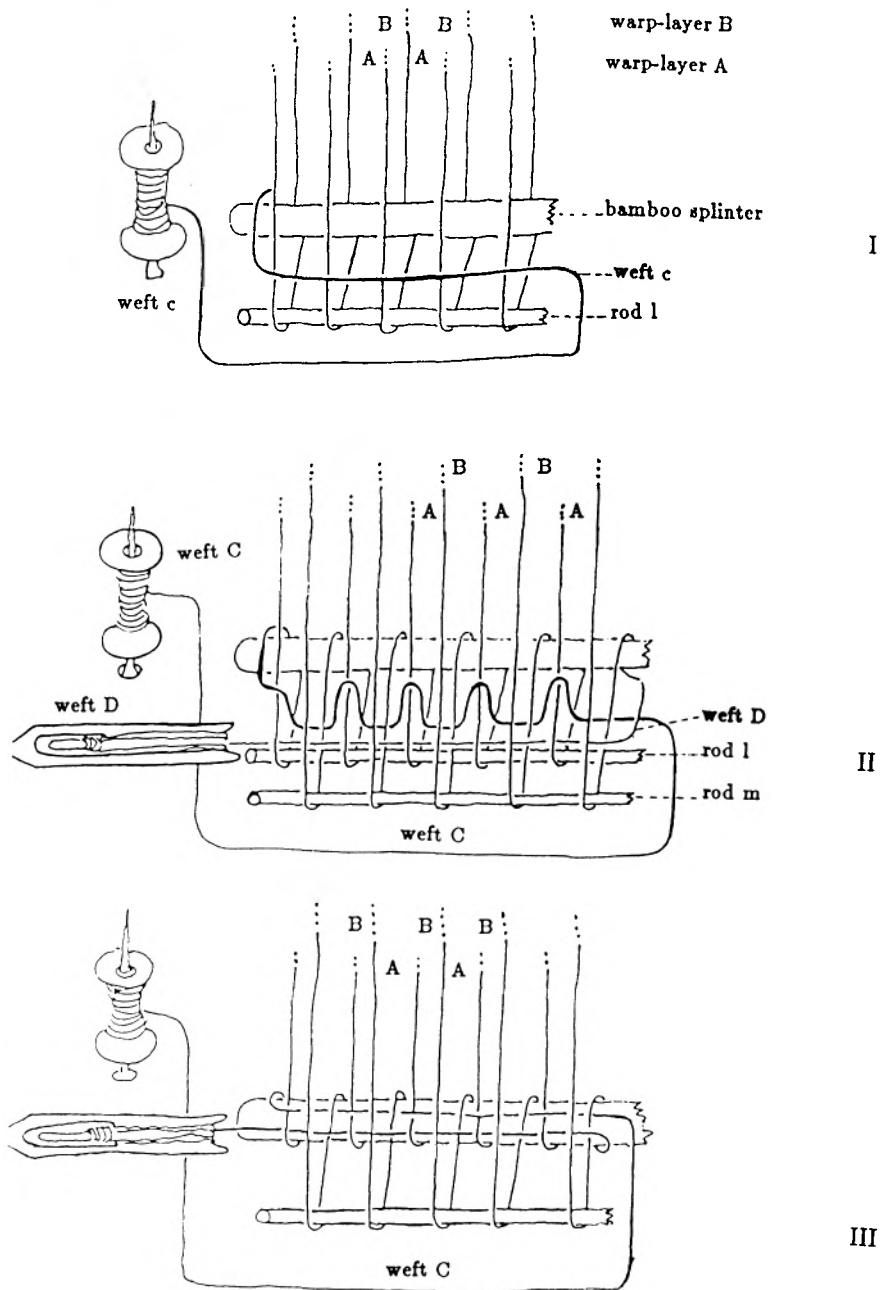


Figure 7. The working-process in top-view, Stages I+V+VII.



These eight stages constitute the first phase of the process. The second phase is identical, except that the wefts will pass in opposite directions and the positions of the warp-layers will be reversed. The rigid heddle is not needed in this phase, since layer A is above layer B in its natural position. Stage II, therefore, is omitted.

### *History of the Kago-uchi.*

From the little information I was able to gather, the kago-uchi was conceived, at the beginning of the Meiji period, by a family of Samurai who practiced Kumi-Himo as a means of earning their livelihood. The irruption of the industrial revolution threatened the existence of these artisans and they tried, through the refinement of their craft, to surpass the capabilities of the machines and popularize articles which could not be reproduced industrially. Many unusual tools and devices issued from this situation and the kago-uchi is a typical example.

I was told that there was once a women's prison in Sakamoto where the inmates wove kago-uchi. My guide, Adachi-San, said that as recently as about 1960 some 60 such looms were still in use. Only a few were left in 1971; by now, maybe, they are quite extinct.

Some people vaguely hinted to me that aside from the "Hira Kago-Uchi" described here (hira meaning flat), another braid called "Maru Kago-Uchi" was also made long ago (maru meaning round), and also that these fabrics developed from decorative knots called "Ishidatami" and "Shippo-Musubi".

In fact, the structure is by no means restricted to Japan. Clifford Ashley, in his famous "Book of Knots" (Faber and Faber) gives, beside the well-known # 2617, "Crown and Reverse Sinnet", with four thongs, # 2918, "Oblong Crown and Reverse", with six thongs, which exactly makes the Kago-uchi if more elements are added; and # 2919, "Square Crown and Reverse" with eight thongs, which probably corresponds to the "Maru Kago Uchi" hinted at by old Japanese craftsmen. I met with the same structure in the context of European nineteenth century hair-jewellery, with the warp consisting of flat braids, and the weft of strong dark threads, and also in some indigenous objects of unknown origin, where the warp as well as the weft was thongs of leather or other material. Therefore the merit of the Japanese artisans does not lie in the structure, but in the most original loom devised to produce it, with an unusual quantity of warp-threads and an unusual material.

## Part II.

I would like to describe the circumstances in which I was confronted with this unusual technique. Any ethnologue occupied in field research will understand how this second part of my exposé meshes with the first, the technical aspect.

Numerous recommendations had allowed me to obtain the aid of Adachi-San, an important wholesale-dealer of "kumi-himo" in Japan. My ardent interest in his merchandise and my knowledge of European braiding techniques had made a strong impression on him, and he treated me to endless surprises during my stay. He took it upon himself to show me anything of interest and appeared to feel proud of the fact that all the knowledge I gained, little by little, I owed to him.

One afternoon we went to see Ota-San, whose remarkable machine "Naiki-dai" is described in my book, but I felt that there was something else I was meant to be shown. Since Adachi-San did not seem to know where the kago-uchi weaver lived, it was Ota-San who accompanied us on our way. We arrived at a small house where, despite all expectations, no loom was to be found in use. Yet another companion joined us here who guided us toward a new destination.

Consequently, the weaver was not prepared for the invasion of such a large party into the peace of her home, and this was the only time I ever perceived discontent in place of the radiant welcome with which I was treated everywhere else.

Clad in a white apron, the weaver knelt at her loom. Her small fine fingers worked with an incredible agility and she did not seem inclined to slow down her rhythm in order to please me. Presented in this way, the process remained impenetrable to me. This affected me greatly, and I had trouble preserving the calm and tact from which I tried never to depart, in order not to insult my hosts.

I knelt on the ground and took in the situation as well as possible. Never having seen a finished fabric of this type, I was for the longest time unable to tell if this bizarre process resulted in some kind of warp-twined structure or some gauze type, for example. After having taken a few hasty notes and sketches, I felt we should take our leave. I tried to hide my trouble and vexation; but I was intensely sorry that unfavourable circumstances had impaired my comprehension and that I had missed a unique opportunity.

I was so ashamed of myself that I attempted to review the problem in my lonely room that evening. I had in my possession an admirable work on the "kumi-himo"—unfortunately written in Japanese—provided by Adachi-San, in which one illustration certainly represented a kago-uchi

loom. This photo and my meagre notes of that afternoon, along with a fragment of the finished structure which Adachi-San donated to me before we left, proved sufficient for me to reconstruct, after many tiring hours of reflection, the working process.

Later, I found that Professor Yamanobe had an identical loom, as well as a set of photographs describing its use. In the quiet of my room I set up the loom, and after putting it in working order, I proved that my drawings and my conclusions had been correct.