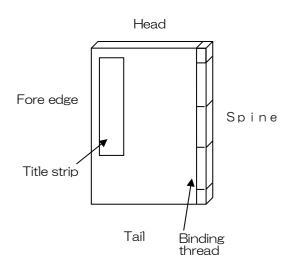
National Diet Library Preservation Division

Japanese Four-Hole Book Binding (Yotsume Toji)

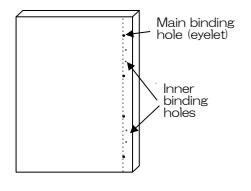
Japanese-style bound books (*wasôbon*) come in many types of bindings, such as *kansubon* ("handscrolls"), *orihon* ("folding books" or "accordion books"), *detchôsô* ("glued books" or "butterfly binding"), *and fukuro toji* ("pouch binding"), to name a few.

Here, we will explain *fukuro toji* ("pouch binding"), and *yotsume toji* (Japanese four-hole book binding), in particular.

The Parts of a Japanese Bound Book



Approximate Positions of the Inner Binding



Materials and Tools Used

• Washi (traditional handmade Japanese paper) for use with paper string

	100% <i>kozo</i> (mulberry) <i>washi</i> : Approximately 15g/m ² thick (such as thin <i>Mino</i> or <i>Sekishu-banshi</i> , etc.), 2 cm wide, and 20 cm long
• Bookbinding needle	A long needle for sewing cotton cloth or bookbinding needle
• Binding thread	Silk thread (<i>Taihaku</i> : Thick white silk thread)
	The thread length should measure approximately 3.5 times the length of the book from head to tail. A single-threaded needle is often used for Japanese-style bound books, while a double-threaded needle is often used for Chinese classics.
Board	Used for a work platform.

*A Note on Rebinding

Even if the thread is somewhat worn or loose, as long as the inner binding is sturdy and the book opens and closes without difficulty, there is no need to re-bind the book. Since re-binding may result in the book coming apart from the existing thread being cut, the material itself runs the risk of becoming damaged. Therefore, one must carefully consider whether to re-bind an item or not. When re-binding a book, preserve the original thread in a small pouch along with the book.

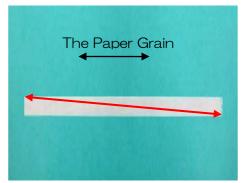
1. Twisted Paper String and inner binding

With inner binding, the pages will not scatter even if the binding thread breaks.

In addition to paper string binding methods for Japanese books, materials may also be bound with staples, clips, or similar implements. As staples and clips can cause rust and other damage, materials can be preserved by removing those items and re-binding the material with paper string.

1-1 How to Make Twisted Paper String (Koyori)

Proceed to twist the *washi* into string after placing the rough side of the *washi* face up.



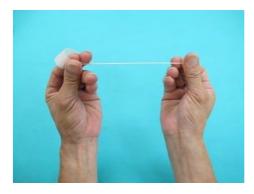
1. It is best to make the length of the paper string equal to the diagonal of the *washi*.



2. Start by picking up the lower right corner of the *washi* and twist it with the thumbs and index fingers of both hands. Moistening your fingertips will make this easier.

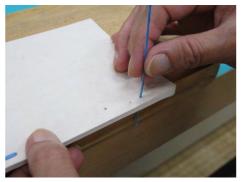


3. The beginning of the twist.

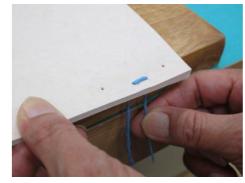


4. Twist up with your left hand while keeping it taut. Roll it with your right hand every now and then.

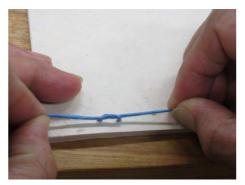
1-2 Inner Binding (To make it easier to see, a blue paper string is used throughout the photos)



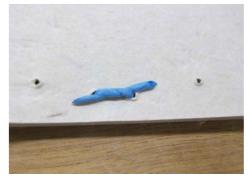
1. Pull the both ends of the paper string through two holes for inner binding. If the paper string does not easily thread the hole, cut the ends at a diagonal. The thread will pass through more easily with sharpened ends.



2. Pull the paper string through from underneath.



3. Tie it once on the other side, then pound and flatten the knot with the back of the scissors. Pounding the knot will tighten it and prevent it from loosening.

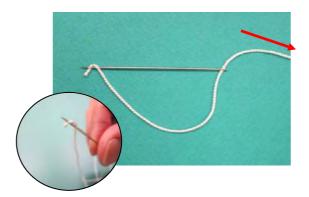


4. Leave approximately 5mm on both ends and then cut with scissors.

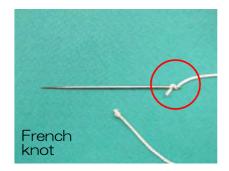
2. Japanese Four-Hole Binding (Yotsume Toji)

2-1 Preparing Binding Thread

With the thread fastened to the needle as depicted in the photo below, the thread will not slip from the needle during binding and will make work easier.



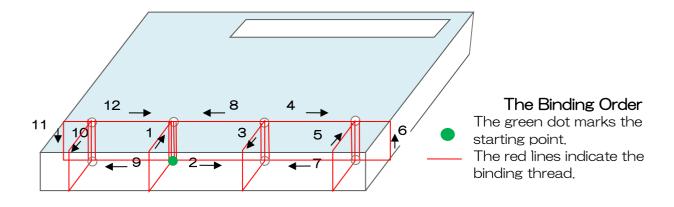
1. Thread the needle, and then pierce one end of the thread with the needle in two places. Pull the other end of the thread in the direction of the arrow shown.

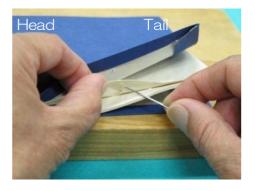


2. The thread is fastened to the eye of the needle. Make a French knot with the other end of the string.

2-2 Japanese Four-Hole Book Binding (Yotsume Toji)

As you will pass the needle through one hole at least three times, be careful you do not pierce the thread with the needle from the second pass onward.

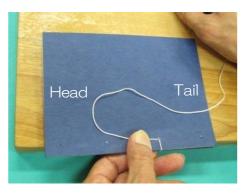




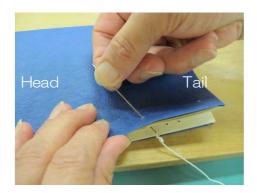
1. Place the back cover right-side up so that the spine is facing you. Turn up two to three pages from the spine, insert the needle through the paper of the book between the spine and the second binding hole from the tail, and then pull the needle tip out from the binding hole in the back cover.



3. The French knot will come to a stop in the body of the book and the thread will not come loose.



5. Proceed to the next binding hole along the left side (toward the head) and bind the spine.



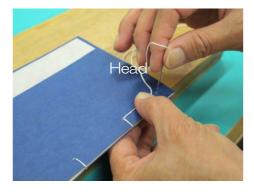
2. Pull the thread out of the second binding hole from the tail on the back-cover side.



4. Insert the needle into the same binding hole, this time from the front cover side so that the thread catches the spine.



6. To prevent the threads from loosening, press the thread down with your thumb as you continue to bind.



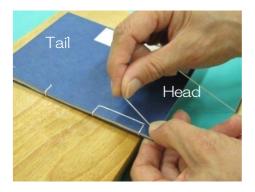
7. Switch to the front cover, pull the thread through the hole at the head of the book, then loop the thread around the spine and pass the thread through the same hole.



9. Loop the thread at the head of the book and pass through the same hole. Then switch to the back cover, thread the second hole from the head, and return to the front cover.



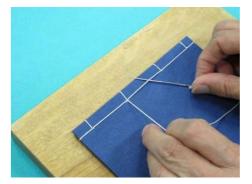
11. Return the starting point again and pass the needle through the back cover. At this stage, all locations have been threaded.



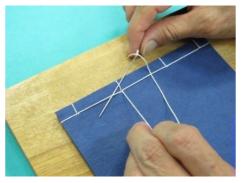
8. When binding the head of the book, change the direction of the book so that the material at the head of the book is facing you (the same applies when working on the tail).



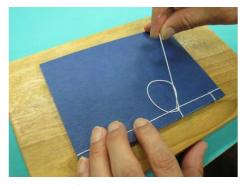
10. Return to the starting point. Repeat these steps and bind the tail just as you did with the head of the book. (See steps 7-9)



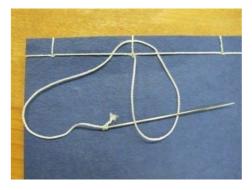
12. Finally we are ready to tie the threads. Return to the back cover, and pass the needle with the binding thread through the lower three locations. Start with the first location.



13. Pass the needle with the thread under the two remaining locations. At this point, without tightening the thread, make a thread loop with your left hand.



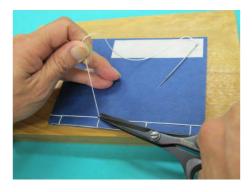
15. You can form a knot by pulling the thread. Pull tightly to prevent sagging.



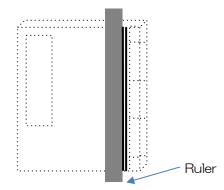
14. Pass the needle through the loop of thread.



16. Pull the needle through the same binding hole and come out on the front cover side. When you pull the thread to the front cover side, the knot on the back will be pulled into the binding hole and will remain inconspicuous.



17. Pull the thread taut and cut the end with scissors. Be careful you do not cut any of the binding threads. The cut end of the thread will remain out of sight in the binding hole.



Place a ruler over the front cover of the new book to the inside of the binding thread and create two folding lines with the spatula.

Open the cover along the folding lines and gently form a folding crease. There is no need to create folding lines if you are re-binding a book, because it will already have them.