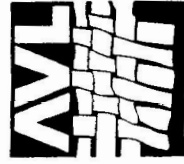


AVL WEAVING ACCESSORIES

AVL WEAVING ACCESSORIES

HANDSHUTTLES & FLYSHUTTLES

*Includes Instructions For
Bobbin Winding
And Tension Device*



AVL
LOOMS

AVL Looms' shuttles use stationary, open-end bobbins. The advantage of using this type of bobbin over the conventional bobbin is that as soon as the shuttle is caught, thread stops coming off the bobbin, whereas the spinning bobbin tends to keep spinning and thus unwinding thread even after the shuttle is caught. The stationary bobbin allows the weaver to obtain a clean selvage edge much more easily. Some AVL shuttles also have a built-in adjustable tension device that puts the proper tension on the thread as it comes off the bobbin. This eliminates the need to lay in each weft shot and thus greatly speeds up the weaving process.

Bobbin Winding

Stationary bobbins are wound quite differently than spinning bobbins. They are *not* wound back and forth from one end of the bobbin to the other, so please practice the following technique.

Use a standard size bobbin winder; a hand winder will work but an electric one is better; and some sort of tensioning device is ideal since the thread must be wound very tightly for best results. Make a few winds of the thread over itself about one and a half inches down from the large end of the bobbin and then place it on the winder. Wind the thread *tightly* onto the bobbin in continuous overlapping two-inch layers starting at the large end of the bobbin and working downward. Each layer will be tapered toward the small end of the bobbin and be cone-shaped like the first layer which is pre-shaped for you at the large end of the bobbin. For each layer wind the thread tightly and quickly back and forth covering a two-inch

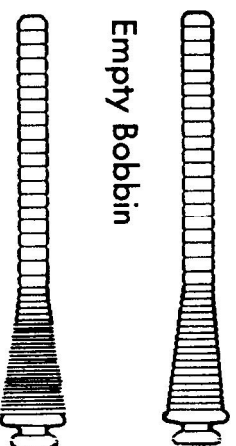
area until that layer is complete, then move down one-fourth of an inch and start a new layer which will overlap one and three-quarter inches of the last layer. Keep repeating these tapered overlapping two-inch layers until there is one-half inch left at the end of the bobbin. You will learn to know when each layer is complete; if the layers are too fat the bobbin won't fit in the shuttle, but if they are too thin you won't get as much thread on the bobbin and it will have to be changed sooner.

groove in the end of the bobbin straddles the retaining pin in the bottom of the shuttle. This prevents the bobbin from slipping off the shaft. The shuttle is now ready for weaving, but if you have a tension device, you'll want to follow the next step as well.

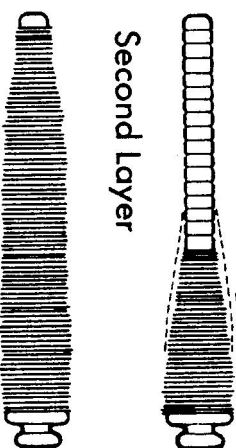
The Tensioner

You'll notice that on the outside of the shuttle are two adjusting screws, one on each side. By screwing in

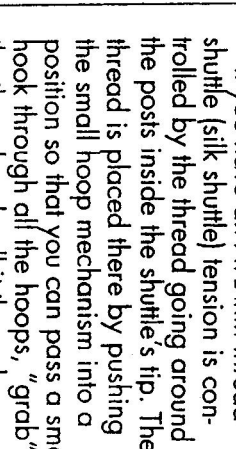
WINDING THE BOBBIN



Empty Bobbin



Second Layer



Third Layer



First Layer Of Thread

Full Bobbin

Wind many bobbins at once so it won't be necessary to stop and wind bobbins while weaving.

Now uncoil about six inches of thread off the bobbin and pass the end of this thread through the two middle plates of the tensioner at the end of the shuttle. Now pass the thread through the curved opening and out through the eye on the side of the shuttle.

Pull up the metal rod in the middle of the shuttle and slip the large end of the bobbin onto it. It might be a little stiff at first; then push the bobbin down into place so that the

these screws you increase the pressure of the spring on the middle tension plates and thus increase drag on the thread running between them. But *don't unscrew them too far* or they'll fall out.

Throw a few weft shots with the shuttle and then check your selvages. If the selvages are too loose, increase tension; if tension is too great and the selvages are drawing in, reduce tension. It may take a little experimenting to get it just the way you want it, but when properly adjusted they work beautifully, so have fun.

Thick Threads— Large Spring and Tension Plates

If you have an AVL shuttle with two tension springs and plates to hold the yarn, then you may use it in the same way as the standard AVL shuttle. Screwing in the tensioning screws on the shuttle's side will increase the tension on the filling yarn and loosening the screws will decrease the tension. To thread the shuttle, simply pull the filling thread off the end of the bobbin. Use a small hook (perhaps a crochet hook) to get the thread out the side hole.

Thin Threads— hoop and post tensioner

If you have an AVL thin thread shuttle (silk shuttle) tension is controlled by the thread going around the posts inside the shuttle's tip. The thread is placed there by pushing the small hoop mechanism into a position so that you can pass a small hook through all the hoops, "grab" the thread and pull it through one ceramic eye. Once you've done this the shuttle is ready to go. If you wish to reduce tension, simply pull the thread off the first post each time or remove thread from a post.

Replaceable Tensioning

Some AVL shuttles also have replaceable tensioners so you can change the system for different type yarns. Look underneath the shuttle for a large screw that's located under the tension device. Removing the screw will allow you to pry out one tension device and insert another one. In this way you can use virtually any type of yarn or thread with your AVL shuttle.