## IV. SETTING THE HARNESS LEVEL

These looms are designed so there are no bottom stops for the harnesses. They are noisy, and they limit the control the weaver has over what kind of shed will occur and just where it is desired. Instead, the stopping point of each harness (when at rest) is controlled by the rubber bumpers which stop the lamms on their return, and the eye bolt on each lamm. The harnesses are not set when the loom is shipped since each weaver will choose what they feel is the best setting and either leave it that way, or move it up and down depending on the warp. Each harness can be controlled independently. For the novice, let me say that it is important that the harnesses be set so that they draw the warp down from the horizontal position. The warp should be resting on the shuttle run, preferably with the beater in the lower position. This gives a head start on the shed, and allows a larger shed with less wear on the warp.

To set a harness height, loosen the bottom nut on the eye bolt in the center of the lamm. To raise the harness, raise the upper nut so the eye bolt sets further down in the lamm. To lower do the opposite. Then retighten the bottom nut. A little experimenting will help a great deal.

Note that it is not necessary that all harnesses be the same height. Some weavers like to give the back harnesses a head start on a shed by setting them a little higher. If you are not sure what you will want, set them all even so the heddle eye is a little below the bottom of the reed, or place a single warp thread on and lower the harness until the thread is resting on the shuttle run. Under no circumstances is it necessary or advisable to set the harnesses so low that the heddle bars are near the bottom of the tracks, risking their dropping out.

## V. TYING UP

To tie up the treadles use the chains as follows: drop the free end of a chain through the appropriate lamm hole and let it fall down to the treadle (the washer will keep it from going through). Do this with all the lamm holes in your tie-up. Then use the treadle pins to catch a link of each chain as it is placed through the screw eyes on the treadles. It will fit through either half of any link although it might take a little maneuvering. The pins should go through from the front to the back to avoid having the sharp point facing the foot.

Chain tie-ups have many advantages - they need no tying as with cords, they are positive and won't stretch, and they don't pop out as wire clips sometimes do, causing a problem in your pattern if you don't notice it immediately. The only disadvantage is that they are not infinitely adjustable, as a cord. They can only be adjusted within one-half link. When tying up, you can set the treadles at any height which is comfortable for you by choosing the proper link, but you will run into the problem of having some slack in some of the chains tied to a particular treadle. This will cause an uneven shed if you don't arrange the chains with a minimum of slack, and put the slack at the front harnesses. This will insure that the back harnesses raise more than the front and create an even shed. You can, of course, throw away the chains and tie cords if you wish.

## VI. BEATER

The beater has two height positions, allowing the weaver to keep the warp resting on the shuttle run at any tension. It is best to keep it in the lower position if your warp will allow. On the large floor loom, you need only move the beater so the bolt pivots are in the other slot. On the small floor loom it is necessary to pull the beater side off the pivot bolt, first one side then the other, and replace it on the second pivot hole. This is more difficult but allows the loom to be moved more easily.