

CHAPTER 10

SOLVING YOUR PROBLEMS

THE BEGINNING WEAVER SHOULD NOT EXPECT to reach perfection with his first efforts. As in other crafts, skill is developed slowly and numerous difficulties may be encountered in the process. In each case, when the cause is understood a solution is usually possible. Not every problem can be anticipated but some of the most common are listed here with their causes and directions or suggestions for their solution.

PROBLEM	CAUSE	SOLUTION
1. Broken warp yarns	a. Using yarns of insufficient strength	a. The strength of the warp yarns will be ascertained in weaving the preliminary samples. Singles wool should be handled as little as possible. Singles linen will work satisfactorily if dressed with skimmed milk or is wet spun.
	b. A weak spot or a knot in a yarn	b. Mend according to instructions in Chapter 7.
	c. While making the warp some yarns may have been held at a greater tension than others.	c. Weave a few inches to see if the warp will adjust itself. If it does not, and the tension is present all through the warp, wind it forward onto the cloth beam and re-wind onto the warp beam, adjusting the tension.

PROBLEM**CAUSE****SOLUTION**

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| | d. Inept shuttle control | d. This is corrected with practice. |
| | e. A rough or splintered shuttle may catch and break warp yarns. | e. Shuttles may be kept smooth by sanding or using steel wool. |
| | f. Selvage may have pulled in. This lack of "ease" narrows the web, and when the beater is pulled forward the reed cuts the outer warp yarns. | f. Allow sufficient ease in the filler yarn as shown in Figures 7.5 and 7.6. |
| 2. Puckering of the cloth, warpwise or fillerwise | a. When using yarns of different fibers such as wool and cotton in the same fabric it must be remembered each fiber has a different percentage of shrinkage. If any one fiber is woven in a concentrated area, puckering will appear in the cloth. | a. These different fibers should be intermixed in both warp and filler. A stable yarn should be used every few ends in the warp and no one fiber isolated in too great an area in the filler. |
| 3. Selvage difficulties | | |
| a. Floating selvage yarns | a. Floating selvage yarns are likely to appear in any of the twills or patterns where the use of the tabby yarn is not employed. | a. Most weavers ignore the floating yarn, clipping it off after weaving is completed. It can be corrected by changing the threading of the outside warp yarn forward one harness, or back one harness. Using two shuttles will also correct the difficulty; two shuttles, however, mean slower weaving. |
| b. Broken selvage yarns | b. Narrowing the web from too great a pull-in | b. (See f. under broken warp yarns.) |
| c. Ragged selvages | c. (1) Inexperience
(2) Inflexible filler yarns | c. (1) Rhythm and control come with practice.
(2) Wiry and inflexible yarns do not weave in smoothly. Such yarns as linen and jute are more pliable when wet. The bobbins may be wound and soaked in water or wrapped in a damp towel. |

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	(3) Weaving too close to the reed narrows the angle or arc, making it necessary to stretch the selvage ends.	(3) Move the web forward frequently while weaving.
4. The shed fails to open properly		
a. If the entire shed fails to open	a. Lease sticks may be too close to the harnesses.	a. The lease sticks may be removed after checking for mistakes. If they remain in the warp it is important to keep them near the back beam.
	b. Insufficient warp tension	b. Tighten the tension.
	c. Uneven shed—yarns on one harness may not be level with the others.	c. Adjust the tie-up.
	d. Yarns may stick or cling to each other preventing a clean shed. This is often true of woolen yarns.	d. Allow the filler yarn to lie in a wide arc in the shed. Change the shed before pulling the beater forward. Continue in this manner as long as the clinging persists. The beater helps to separate the sticky yarns.
b. If only a few yarns fail to rise	a. Yarns may be crossed in the reed.	a. Check by lifting the yarns back of the beater. If they are crossed, re-sley.
	b. Warp ends may be crossed in the heddles or in front of the lease sticks.	b. Re-thread the crossed yarns.
	c. A loose warp end will not rise with the other yarns.	c. Pull the loose end up to the proper tension and re-tie.
	d. A warp yarn may break and wrap around adjacent yarns.	d. Untangle and mend the broken yarn.
	e. Heddle eye might have been missed in threading.	e. Re-thread the warp yarn.
5. Skips in warp and filler	a. Relaxed or loose warp ends fail to weave in.	a. Adjust the warp tension of the relaxed yarns.

PROBLEM	CAUSE	SOLUTION
	b. Lack of shuttle control—the shuttle may have been thrown over or under warp ends.	b. Rhythm and shuttle control will come with practice.
	c. Shed was separated unevenly.	c. Check tie-up.
6. Streaking of the cloth warpwise and fillerwise		
a. Warpwise streaks	<p>a. Skipping a dent in the reed will leave a space in the web.</p> <p>b. Putting an extra warp end in a dent will create a heavy line.</p> <p>c. In a warp unit of mixed yarns an end may be threaded out of order. For example, if the unit consists of 5 different yarns they must follow in a planned sequence.</p> <p>d. A heddle may have been skipped in threading.</p> <p>e. Using yarns from different dye lots</p>	<p>a. Re-sley to correct.</p> <p>b. Re-sley to correct.</p> <p>c. Re-thread to correct. Threading should be checked repeatedly to avoid mistakes.</p> <p>d. Re-thread. This usually means re-threading from the mistake to the nearest edge.</p> <p>e. Yarns from different dye lots may be used if they are alternated throughout the entire width of the warp.</p>
b. Fillerwise streaks	<p>a. Treadling in incorrect order, or skipping a treadle will cause streaks.</p> <p>b. Uneven beating will increase or decrease the number of planned picks per inch.</p> <p>c. When weaving with soft wools the use of a dark filler over a light warp, or vice versa, will often cause streaks. This results from the inability to beat precisely.</p>	<p>a. Unweave to correct.</p> <p>b. Unweave to correct. Practice to improve weaving rhythm.</p> <p>c. Change the filler yarn to one having a closer value to the warp yarns. Dark and light combinations in soft wools are for the experienced weaver.</p>

PROBLEM**CAUSE****SOLUTION**

7. Warp tensions

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| d. The unweaving of soft yarns (especially wool) may leave a fuzzy streak across the warp. | d. To unweave, cut the filler yarns every few inches and carefully pull out the cut ends. |
| e. Using yarns from different dye lots will show definite streaks. | e. Sufficient yarn should be procured to complete a project. Yarns from different dye lots may be used by alternating them throughout the fabric. |
| f. Weaving too close to the breast beam or the reed causes streaking. | f. Move the web forward frequently. Many weavers use a space of no more than 2 or 3 inches before moving the cloth forward. |
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| a. While preparing the warp the weaver may hold the warp yarns under varied degrees of tension, or some yarns may unwind from the warp spools at an unequal tension. | a. If possible wind the warp in one section and at one sitting. Allow the warp yarns to run freely through the hand while winding the warp. All yarns in the unit should pull at the same tension. |
| b. In winding the warp on the warp beam, the individual holding the chain at the front of the loom may hold some sections at a greater tension than others. | b. Frequently check the warp near the lease sticks while it is being wound on the warp beam. The tension of the selvage yarns will be greater than the rest of the warp. If an uneven tension appears after weaving has begun, it will be necessary to wind the entire warp forward on the cloth beam and rewind onto the warp beam adjusting the tension while winding. |
| c. Insufficient use of warp sticks will cause the warp to pile up, or the sticks may be too short allowing the warp to fall over the ends causing selvage tension. | c. Sticks of the proper length, used frequently, will eliminate the piling-up of warp yarns. |

PROBLEM	CAUSE	SOLUTION
8. Irregular filler lines		
a. Sections of the cloth or selvage pulling toward the breast beam or toward the reed	a. The warp ends in the area involved are not tied at the same tension as the remainder of the warp.	a. Re-tie the group of warp ends causing the trouble.
b. Cloth weaving diagonally	b. Holding the beater off center will cause the cloth to weave in a diagonal line.	b. Mark the center of the beater and grasp at that position.