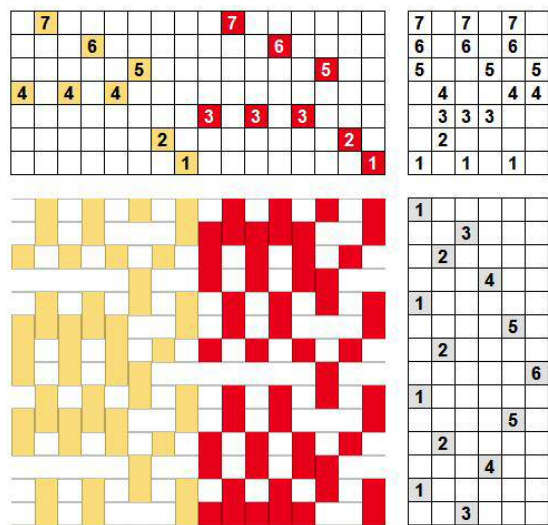
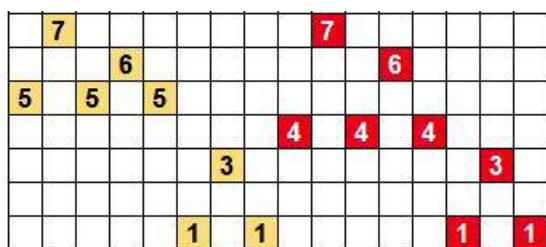


69. Two Blocks of III-B Tie-switched and Redrafted for 1-2-1 Tie Configuration



70. Two Blocks of III-B Tie-switched and Redrafted for 2-1-1 VI-B Tie Configuration



71. Two Blocks of III-B Tie-switched; Alternate Configuration

be moved down as shown in Figure 69. This frees up shaft eight to allow another a pattern block if desired.

The tie-up has to be changed accordingly to reflect this switch. The ties on shafts five and seven are “acting” as ties on shaft one and the tie on shaft six is “acting” as the tie on shaft two. The tie-up and treading is in summer and winter style, meaning that one pattern pick is woven with the ties on shafts five and seven acting as tie-downs on shaft one, alternated with ties on shaft six, acting as the tie-down on shaft two. Remembering that tabby is formed with all tie-downs on one treadle and all pattern blocks on the other tabby treadle, the “normal” tabby treadle is altered to reflect the switched ties. Figure 70 shows the tie-up to switch the tie-group to a 2-1-1 configuration. The tabby tie-up does not change.

It is also possible to make only two of the three ties switched and leave the other as a constant to eliminate one shaft for the tie-switching function. Since shaft one has to be devoted to the tie-group anyway, it makes sense to make one of the ties from the tie unit on shaft one a constant tie-down also, as depicted in Figure 71. This leaves the other two ties in the skeleton threading for tie-switching. Those two ties are shown on shafts six and seven. Again, this leaves shaft two empty and allows all shafts to be lowered for another pattern block, which means, in this case, two additional pattern blocks can be added to the draft for an eight-shaft loom (extra shafts not shown).

The same process of creating skeleton threadings for the tie-unit to permit tie-switching can occur with the 10-thread Blends in the C group. In this case, with four tie-downs in the tie unit as many as four shafts can be skeletons for the tie-downs allowing for switching. Or, as with the B group, one or two tie-downs can be constant and the others on skeleton shafts.

With experimentation, this system of tie-switching could be applied to some of the more advanced Blends as well.

Whether Bateman envisioned tie-switching in this manner we will never know! But there is a good chance that he discovered all of the possibilities on tie-switching on his 8-shaft table loom too.