Theoretically it is quite easy to get as many different colours in one line as there are blocks in the draft. Thus six colours can be woven on 8 frames, four on 6, and two on 4. However the more colours, the more difficult is the weaving. Here is why:

In fig. 1 we have a draw-down of a two-block S+W woven on opposite sheds (bound weave), where "m" is one colour, and "o" the other.

Fig. 1

The warp does not show at all. The main colour (m) covers 75% of the block in theory and more in practice, since the floats "mmm" spread and cover nearly completely the ties (o) of the opposite colour.

To get four colours we have to make four shots of weft each with a different colour, and each in a different block (fig. 2) in such an order that the ground frames (1 and 2) will be used alternately. Then another four shots on remaining treads, with the same colour in the same block. This gives us one repeat of threading. After the weft is well beaten down the fabric will look more or less as on fig. 3. One colour (m) will prevail, with others (o, v, and +) tinged it to a certain degree. When compared with fig. 1 this principal colour will cover only 35% instead of previous 75%. In practice we may get much closer than this to the desired effect of covering 100% of the block with one colour, but other colours will be still visible. For best results the weft should be rather heavy but soft, and the warp rather fine and very open. Another factor hard to evaluate, is the colour selection. The less contrasting the colours the easier to get an apparent uniformity of blocks, but the pattern is much more distinct with contrasting colours even if they are not quite pure.

The more colours, the more difficult to get them pure. Perhaps the best policy to adopt with 6 frames is to use only three colours in all 6 blocks (fig. 4). An important thing to remember is to use all colours all the way through, even in the parts of the pattern, which do not require them. Then we weave them on sheds 9 and 10 (tie-up on fig. 2). They won't appear on the right side of the fabric except for a slight tinge which they give to the main colour, if we neglect to do this, not only the principal colours will be different in different parts of the pattern, but the texture of the fabric will not be uniform.