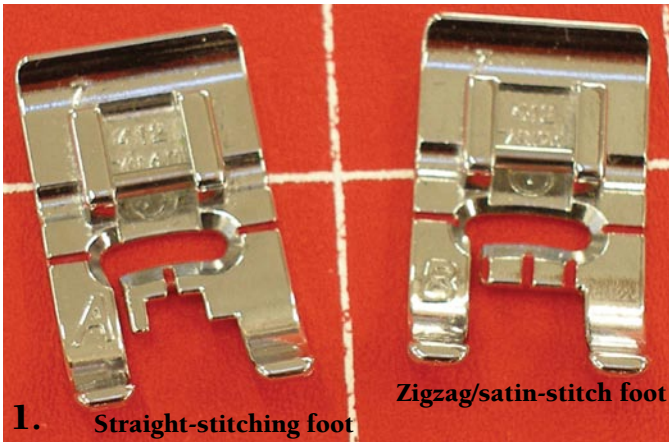
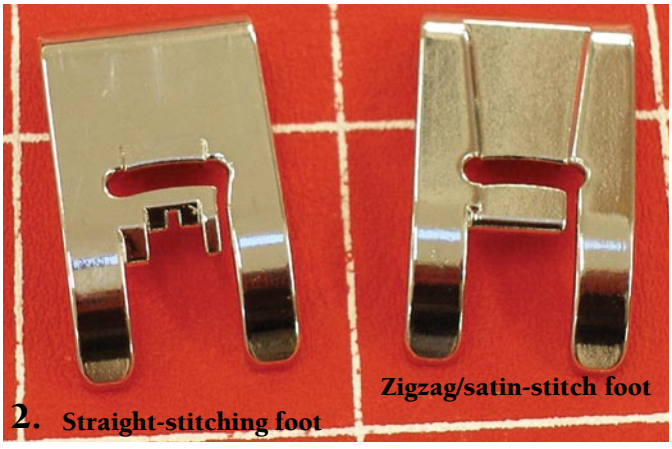
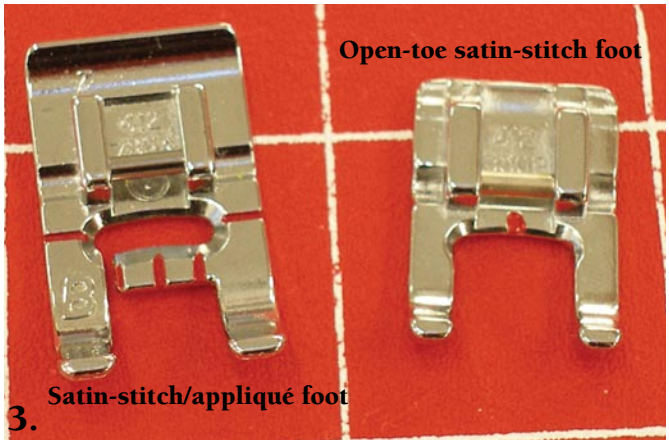
Foot Fetish...

By Martyn Smith

Many articles have been written discussing the three main concerns when creating a perfect stitch. They are; needle choice, thread quality and a well-balanced upper and lower tension within the sewing machine. Using an incorrect presser foot will also result in poor stitch quality when sewing on some fabrics. Some machine brands offer a straight-stitching foot and straight-stitch needle plate with a single hole in it to obtain ultimate perfection when straight stitching; however, changing both foot and plate to do any other stitches is cumbersome when running against time.







The two main feet that can make a difference are the straight-stitching foot and the zigzag/satin-stitch foot. See photo 1. Although they may look the same from the front (topside), the underside of the foot tells a different story. See photo 2. For a straight stitch to form uniformly there needs to be maximum contact between the feed-dogs (feed teeth) and the bottom of the presser foot; this ensures the fabric is fed through the machine at an even pace, thus giving uniform stitching. If there is lack of contact (eg using the satin-stitch foot) some stitches may be shorter or longer than others and this doesn't bode well when doing edge or topstitching. Some fabrics with high elastane may even drop the occasional stitch and sewers then blame the needle rather than the foot. Most machines also have a foot-pressure dial that can be adjusted according to the weight of the fabric and this can also have a bearing on the way fabric is fed through the machine.

The zigzag/satin-stitch foot should be used for any stitch that has a side-to-side action and is most essential for stitches that have a reverse-feed action to make them form. The underside of this foot has a shallow tunnel that allows the stitches to move freely back and forwards without catching on

the needle window (the cut-out in the foot where the needle penetrates the fabric) and the underside of the foot. These sorts of stitches can have multiple layers of threads on top of each other to create the pattern, so the tunnel on the underside helps them form.

Note: Some machines in the lower price bracket only provide a universal foot for both straight and zigzag sewing. This foot is neither a straight stitching foot or a zigzag foot but something in between?

There are many feet available to assist when sewing and the three most invaluable seem to have been snaffled by quilters; open-toe satin-stitch foot, darning foot and the walking foot. These feet have been used for years by garment makers to make life easier when sewing difficult fabrics, embellishing garments whilst allowing more accuracy.

An open-toe zigzag/satin-stitch foot, see photo 3, offers even more visibility than its regular counterpart but fabric can bunch a little in front of it due to the lack of contact with the feed-dogs (feed teeth) but this can be overcome by reducing the foot pressure, if this feature is available. The open-toe is very useful when applying ribbon and braid with fancy stitches, matching up difficult intersections where restricted visibility would create a mismatch and when using a twin needle. Fabrics that have a novelty or uneven texture can get stuck on a normal foot, while an open-toe allows the stitch to form and feed through a little more effortlessly. The open-toe foot is perfect for stitching on a lace edging using a buttonhole appliqué stitch, see photo 4, and then cutting away from the back to give an effective seamless finish (a narrow satin stitch could also be used). See photo 5. The open toe allows more accuracy when stitching curved edges, sharp edges and is especially helpful when joining lace as it is easy to manipulate the fabric under the foot. See photo 6. This foot also seems to have a little more ability when dealing with uneven surfaces and is more forgiving when stitching over bulky seams. It's not overly fabulous on knit fabrics as knits require a little more tension when the needle goes into the fabric to form the stitch, so dropped stitches are more prevalent with this foot.

The darning foot, or free-motion foot as it is called today, lends itself to much more than darning. See photo 7. Most garment sewers would probably have never used this foot for darning, let alone anything else. There are many versions of this foot, but they all work in the same way. See photo 8. The foot clamps the fabric as the needle penetrates and creates its stitch, but the fabric has to be moved manually as the feed-dogs (feed teeth) need to be lowered (dropped). Some of the ways this foot can assist you when sewing (especially tailoring) are: basting or tacking up a hem before blind-hemming, see photo 9, tacking in a shoulder pad through thick layers of coats and heavy jackets etc, see photo 10, and attaching a thick beaded or plaited braid to an edge, see photo 11. This foot works well with both the straight stitch and zigzag settings when attaching a braid and edgings that can't go under a normal presser foot. Tacking or basting a trim to a fabric before finally stitching into place is much faster when pins are not involved! Tacking long runs before hemming is a breeze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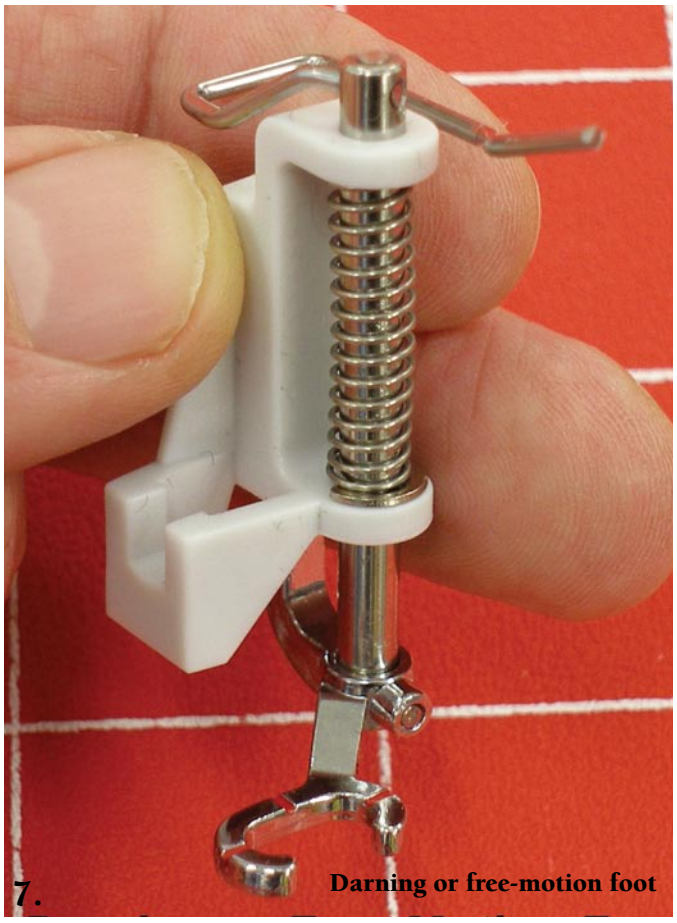
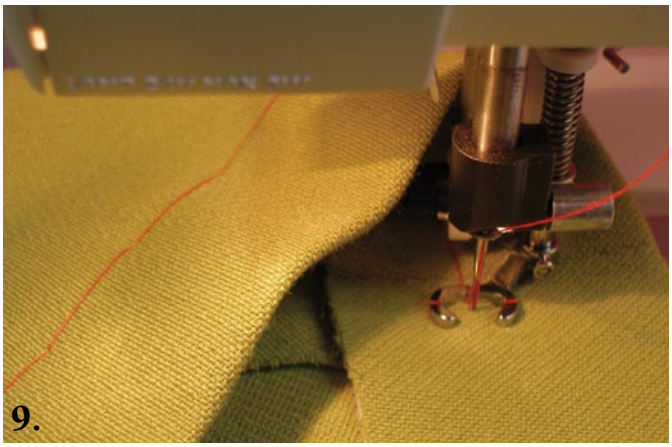

7. Darning or free-motion foot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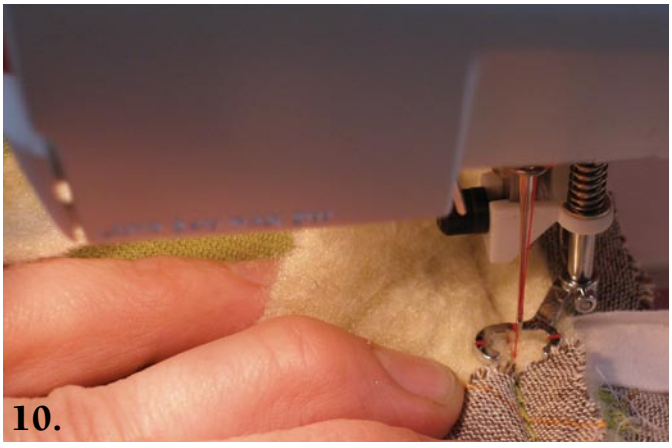
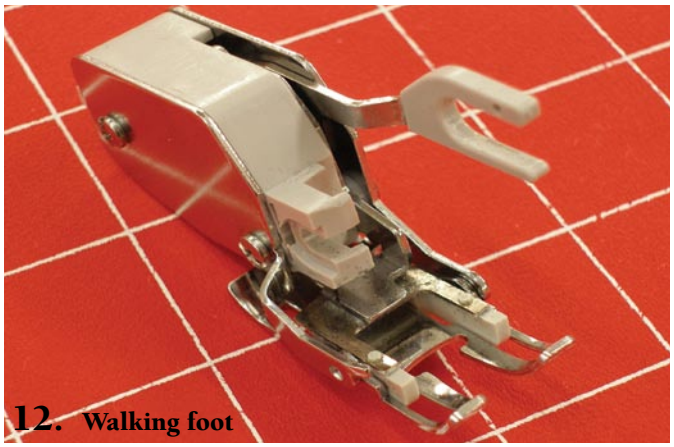

10.

8. Other styles of darning/ free-motion feet

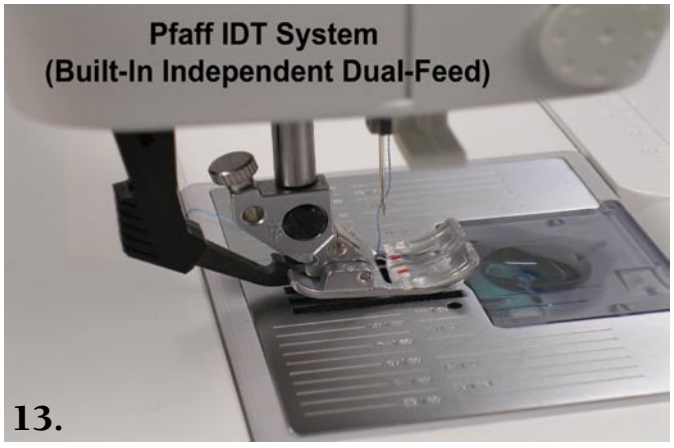

11.

with the foot. When first using this foot for basting it seems very cumbersome, but with practice it's very easy, but remember to hold the threads to start with as they tend to want to pull out as the fabric is moving along.

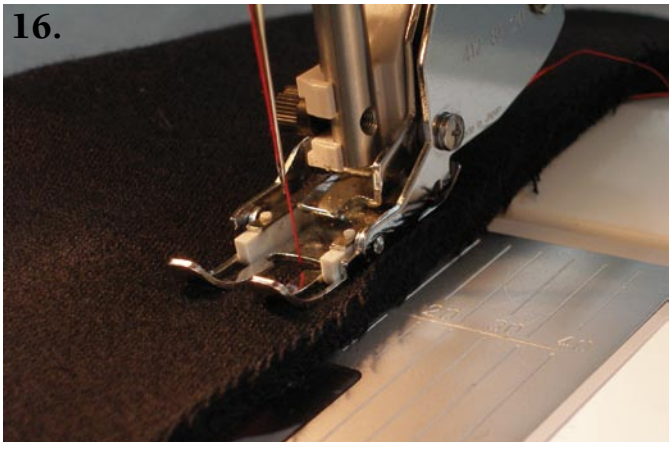
The walking foot has been available to the commercial industry in one form or another for almost 80 years. This foot is totally underrated but understandably so, due its price. See photo 12. Some brands of machine have a built-in dual-feed system but even then a lot of sewers are still not sure of when and where to use it. See photo 13. The foot itself has a set of teeth that work in unison with the feed teeth of the machine, thus the layers of fabric being sewn are sandwiched between these two sets of teeth and are prevented from slipping. See photo 14. The arm which attaches to the needle-bar screw lifts the upper teeth off the fabric when the needle is coming out of the fabric and repositions it for the next stitch. See photo 15. So really, it's only applying pressure to the top layer of fabric but it gives the illusion of walking along the top of the fabric. See photo 16. Try not to look at the foot when sewing as it's quite busy doing its job and can distract from sewing straight seams. There are both closed-toe and open-toe walking feet, but the latter is by far the most versatile on a wider range of tasks. Fabrics which have a pile such as velvet, suede and fur are much easier to control and slippery fabrics like satin and silk stay put under the foot so they don't pleat, pucker or move. A walking foot allows the stitcher to work with or against the pile of the fabric to get the best result possible. Matching checks is much easier, providing the checks on the

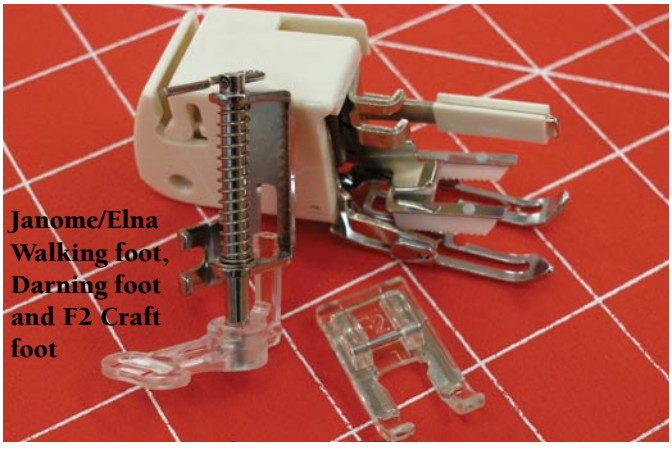


12. Walking foot



fabric are uniform (we sometimes think that the fabric is always correct and it's the stitcher's fault if the check doesn't match). It is not possible to 'ease' seams for shaping when using a walking foot, so putting in sleeves and stitching shaped seams (eg. princess line over the bust) are not advised. However, if the fabric you are stitching is giving you grief, a walking foot may just be the answer. Topstitching is very even and effortless as is seaming long lengths of fabric when making curtains or drapes. The only thing a walking foot is not good at doing is stitching in reverse as the feed teeth are designed to go forward only. However, two or three stitches won't harm the foot but any fancy stitches that require a backward action to form will harm the walking foot when used for long seam runs (the IDT system on the Pfaff machines would be the only exception to this rule). There is definitely a knack to getting the walking foot into position for stitching, as the arm attached to the foot needs to go onto (or above for some models) the needle-bar screw and then be attached to the presser-foot post. The more you use this foot the easier it gets and then it becomes second nature attaching it to the machine. Beware that the foot post screw needs to be checked often as it has a tendency to loosen when being used. The machines that have the feed system built-in are much easier to engage, but there is added bulk around the presser-foot post that sometimes gets in the way when stitching in tight areas with lots of fabric around the foot (eg. inside a jacket armhole and inside pockets etc), however, with practise I'm sure that this could be overcome and those with this feature are totally sold on it.





Janome/Elna Walking foot, Darning foot and F2 Craft foot