

Installation of spreader patches



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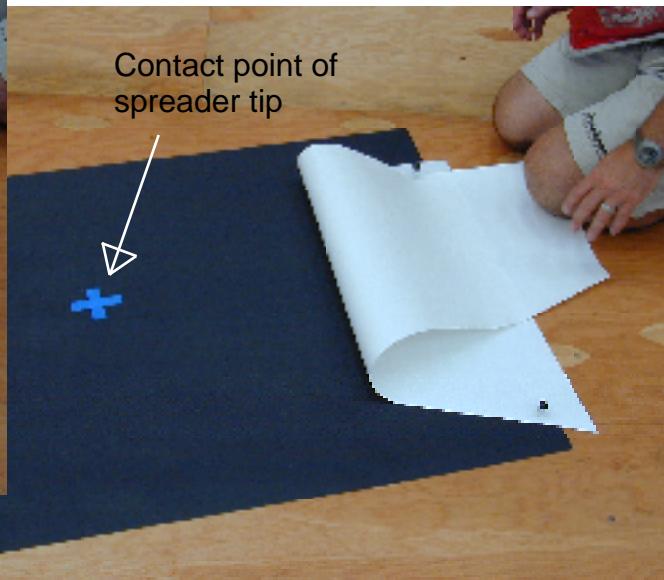
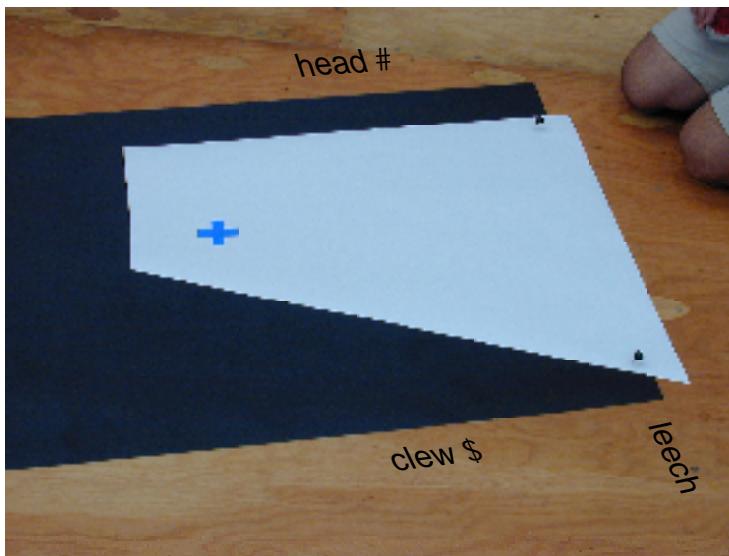
OVERVIEW: Relatively sharp pointed objects are hard on laminated sails in general, and Kevlar/Carbon sails in particular. Spreader tips and the tops of lifeline stanchions meet the definition of relatively sharp pointed objects. The job of the spreader/stanchion patch is to reinforce the sail where contact is made.

The two most important things to get right when you install the patches are (1) getting it in the right place and (2) getting the patch down flat. "Flat" means no wrinkles or bubbles in the patch, no folds in the sail cloth underneath, and not stretching the patch. If the patch is not installed flat the sail will exhibit distortions which originate in the patch. The patches are made of pressure sensitive material, so just the pressure of your rubbing is what bonds the glue to the sail cloth. Don't even think of ironing this patch onto the sail.

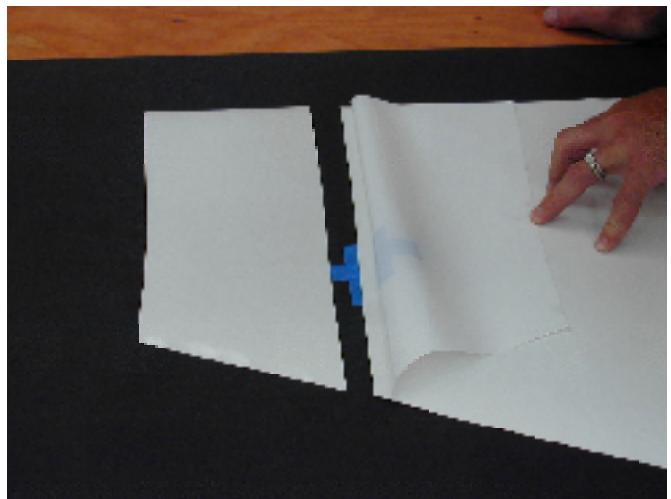
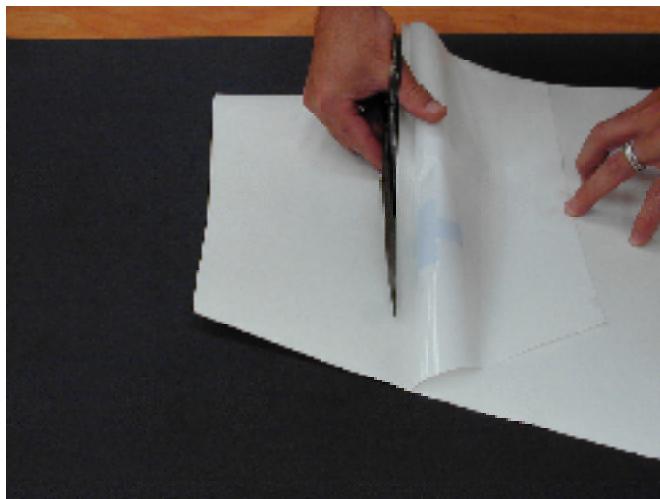
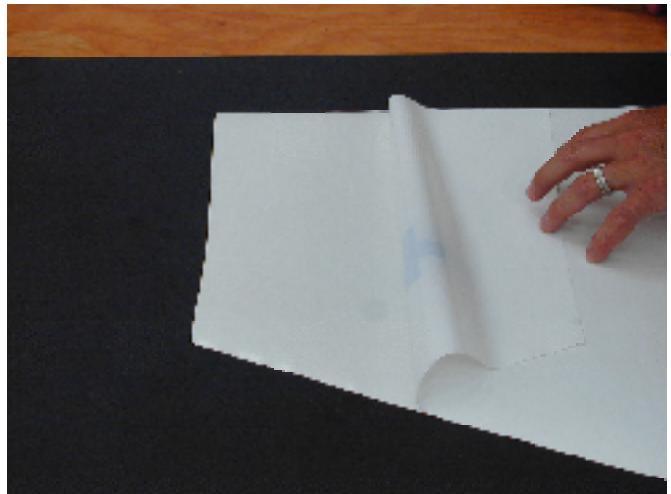
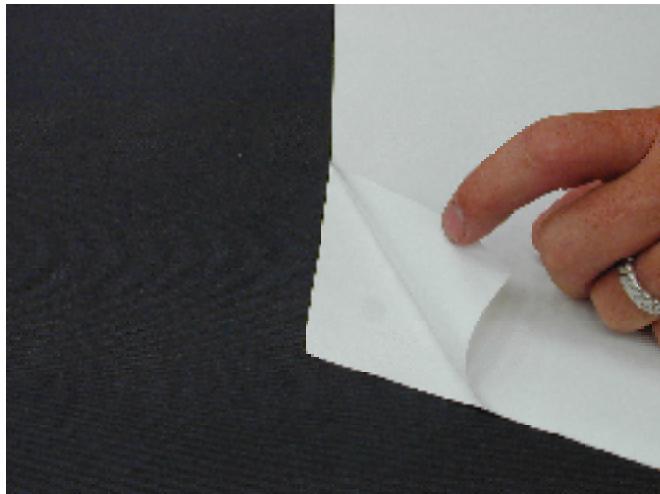
Please read the "Practical Advice" at the end of the document before attempting to install your spreader/stanchion patches.

INSTALLATION STEPS:

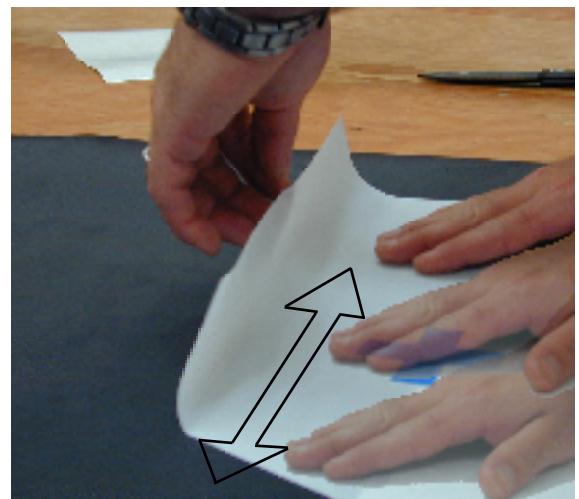
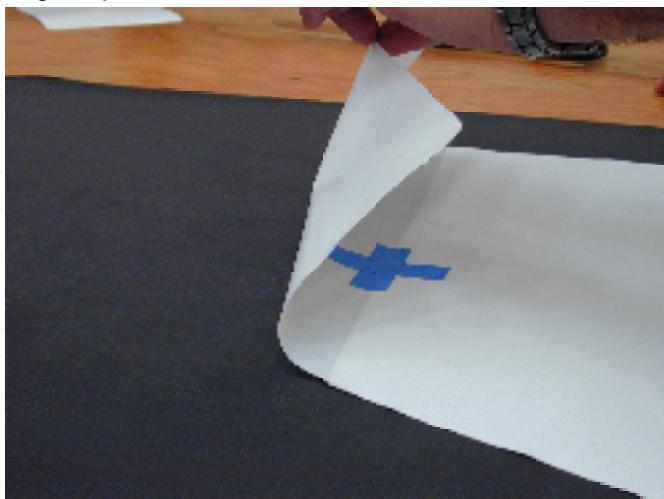
1. Hoist the genoa on the boat and trim jib sheet as well as possible. Mark where spreader tip touches genoa with a felt tip pen. This typically requires going up the rig in a bosun's chair. If you are installing stanchion patches, also mark the top of the stanchions, and the vertical line of the shrouds, including the forward lower if you have them.
2. Place the section of the genoa where the spreader patch will be installed on a flat surface. Hardwood or linoleum floor is good, asphalt is not smooth enough.
3. Place patch on sail
 - a. There are port and starboard side patches, paper side goes towards sail
 - b. Patch should extend 8 inches in front of spreader tip mark
 - c. Spreader tip mark should be 1/3 up from bottom edge of patch
 - d. Top edge of spreader patch should be perpendicular to the leech
 - e. Trim leech edge of spreader patch so it extends $\frac{3}{4}$ inch beyond leech of sail
 - f. Don't let the patch move once you have it in position



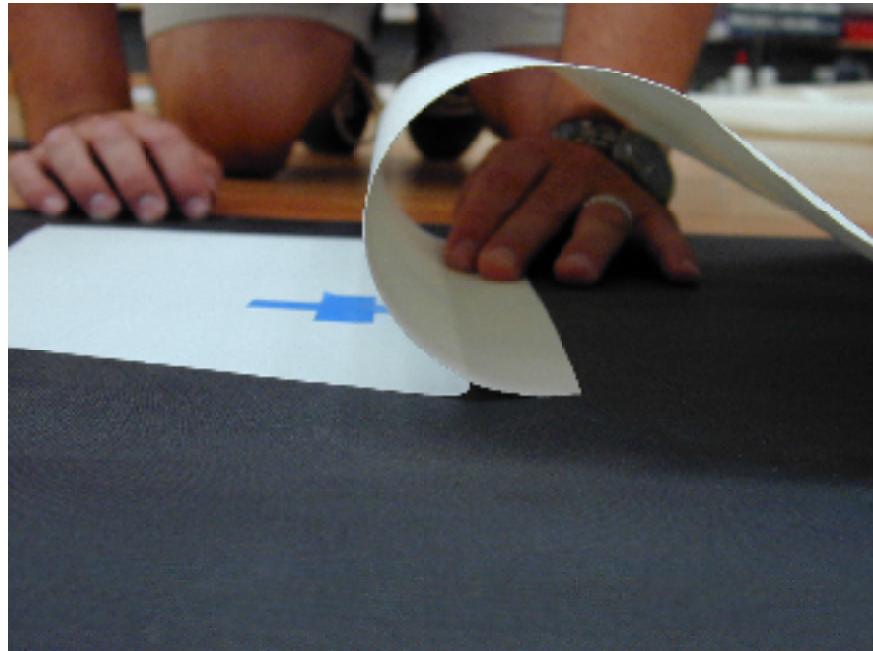
4. Start to peel the fabric off the paper backing in the corner near the spreader tip mark. Peel the fabric away from the paper rather than trying to peel off the paper.
5. Peel back a 4 to 6 inch piece of the fabric, keeping it parallel to the front edge of the patch.
6. Using scissors, neatly cut off the paper backing. "Neatly" means a nice, straight cut.



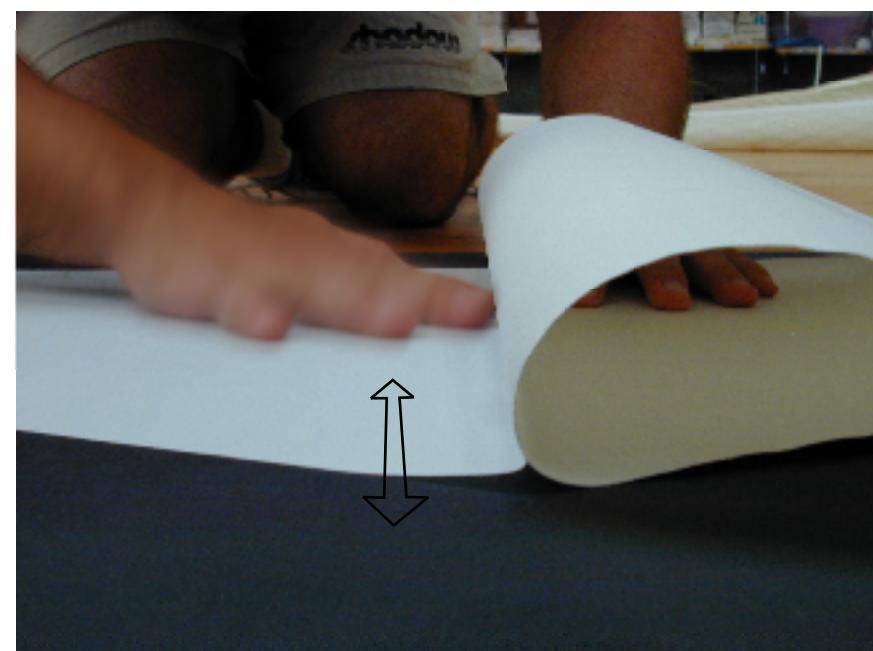
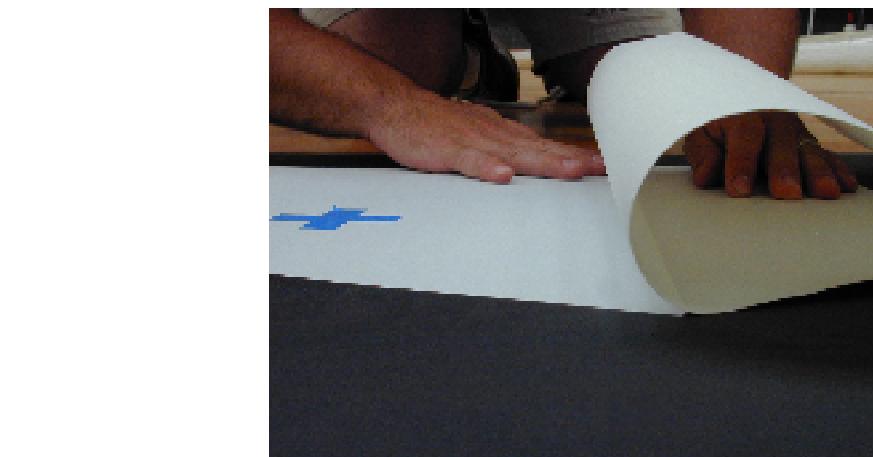
7. Using one hand to hold the front edge of the patch off the sail, lightly rub down the patch starting at the scissor cut above. Rub the patch down by moving your hand parallel to the scissor cut, across the patch. Don't press down too hard. That will come later. Right at the beginning it is important to keep things very smooth and flat. Gluing the patch down has to start flat or chaos will follow.



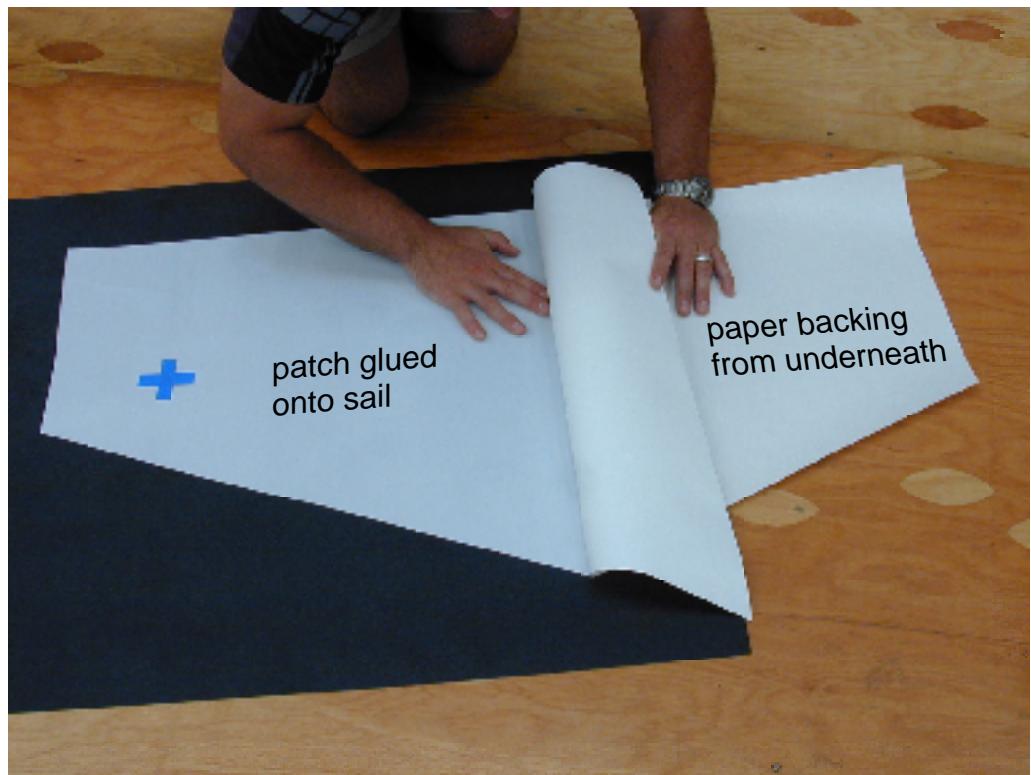
8. Lift up the leech end of the patch and start to peel off the remainder of the paper backing from underneath . As the backing comes off the fabric, run your hand along next to the fold, gently pressing the fabric onto the sail. Rub up and down, the full width across the patch as the glue is exposed. Carefully keep the paper backing coming off in a straight, even manner.



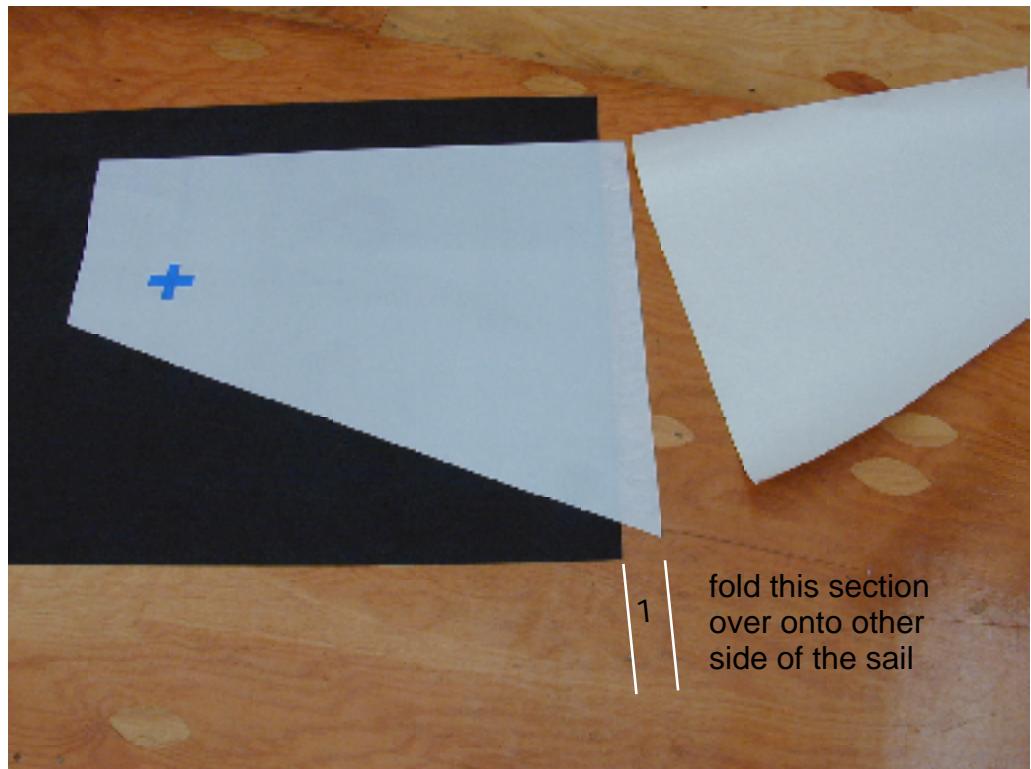
9. Proceed towards the leech slowly, about an inch at a time. Lightly rub down the patch to the sail as you continue to peel off the paper backing. Rub across the patch (parallel to the leech). Proceed from the glued down portion towards the separating fabric and paper backing. This will prevent the formation of air bubbles in the patch.



Nearly done...



10. When the patch is completely down, fold over the excess material onto the other side of the sail, wrapping it around the leech. Now is the time to firmly rub down the patch.



PRACTICAL ADVICE:

Preventing damage in the first place: Tears at the spreaders are nearly always caused while tacking by not releasing the old jib sheet in a timely manner. To tack, the winch handle must be out of the leeward winch. The releaser should be watching the front of the sail. As the boat starts turning into the wind, ease out a few inches of sheet. As soon as the sail has luffed a foot behind the headstay, the sheet should be completely eased. This means all the wraps off the winch, and be sure that the old sheet runs free.

Tears at stanchions are caused by the jib sheet trimmer/grinder not watching the stanchion tops/ lifelines while trimming in the new jib sheet. If the foot of the sail is outside the lifelines, it will need to be "skirted" (lifted inside the lifelines) before the sheet can be trimmed home. Sometimes a good sharp slap on the top lifeline will pop the foot of the sail to the inside as long the sheet isn't too tight.

Adhesion of the patch: The sail must be clean and dry, or the glue of the patch will stick to the dirt on the sail, and promptly fall off. Sails can be cleaned in the area of the patch by wiping down with denatured alcohol, acetone, or MEK. These solvents are great cleaners, and they evaporate very quickly. Use rubber gloves. Brand new sails should not need cleaning.

Help in installing patches:

1. If you can find a big piece of plywood you can push-pin the sail to, that will be a big help. Making the sail and the patch hold still during the installation is a huge benefit.
2. If you are using push-pins, be very careful pinning through a single layer of sailcloth. Try to position the pins in seams where there are two layers of cloth, or in the leech tape. If you must pin through a single layer, reinforce the sailcloth with a few layers of masking tape, or some small pieces of the spreader patch material. Don't pull the cloth too hard against a pushpin.
3. Do a small piece first rather than a big one.
4. If the sail has a taffeta side (light woven Dacron), do this side first as it is more forgiving if you should have to try to lift off part of the patch. This is a better "practice" surface.
5. Don't allow the glue face of the patch to touch itself. It is very hard to un-stick!
6. Don't expose a large area of glue at any one time.
7. Resist the urge to rub the patch down hard until you are CERTAIN you are happy with the whole patch.
8. If you end up with air bubbles, puncture the bubble with a push-pin to let then air out, then rub it down onto the sail.

Miscellaneous:

1. The reason the spreader tip is a little low in the spreader patch is the sail will shrink during its life, and this positioning will keep the spreader on the patch longer.
2. In the case of stanchion patches, the top of the patch should be 4 inches above the mark on the sail. The stanchion tip should go about 2/5 ths of the distance back on the patch (just in front of the middle). The front of the stanchion patch should be placed perpendicular to the foot of the sail. The back edge of the patch will be slanting towards the leech.

We hope this guide has made installing your spreader and stanchion patches a lot easier than blindly trying to "stick them on." If you have a questions or problems, please don't hesitate to call us.

Enjoy your new sails!

Pineapple Sails

A copy of this can be found at www.pineapplesails.com/articles