

and, like the rest of the article, a kind of inspired idiocy.

The Jai Alai Theory of Spoon Oar Propulsion

A spoon oar works like this: Assume that you are rowing along in a fast, easily driven boat. You are pulling with alacrity, the blades are slipping in the water a noticeable amount, and the shafts of the oars display a discernible flex with each stroke. Rather than moving smoothly, you notice that you are accelerating with each stroke and coasting on the return. You are pulsing along at warp speed. As you reach towards the stern to begin your next stroke, look over your shoulder at one of the blades. You will see that it is not only ahead of you, it is also in fairly close to the boat because it has traveled in an arc. At this point you raise your hands to drop the blades into the water and immediately begin pulling. The oar blade is no longer traveling in an arc; it is caught in the water and trying to push off of it.

Something else is happening. Assume you are moving at 30 strokes per minute. As the boat travels forward to catch up with the oar, during the first half second of the stroke the tip of the blade is also thrust outward by about a foot and a half. The hooked tip of the blade is trying madly to gather water into the curve of the spoon while at the same time pulling against the water ahead. The ensuing confusion makes the water angry and increases its resistance towards getting out of the way. As the boat passes the oar blade, the blade begins its journey back inwards another foot and a half in another half second. Because the tip of the blade is pointing increasingly dead aft, the water still resisting is channeled behind the boat. It is the curving tip of the blade channeling and directing water through the cycle of the stroke that makes the blade so efficient. Or, if this

is not clear, it is like a game of Jai Alai. The oar is trying to scoop up a patch of water and throw it behind the boat. The water is uncooperative and stoutly resists, and instead the boat is thrown forward. Positively Newtonian.

I haven't covered ideal grip shape, what sort of flex is desirable, etc. It's not that I don't have opinions, it's just that this is getting dreadfully long, and after that last bit about "angry water" I'm not sure anyone would believe me. If there is interest, I could talk about these another time.

In closing I want to mention a few things about the oar-making method I've devised. First, it's not all that easy. A fair number of tools and technique are necessary to do a good, quick job. It is cheap enough that you can use the best materials you can get hold of—a rough 8-foot 2 by 4 and 2 square feet of plywood. For the first pair, though, just use whatever is cheap and available. The second pair will come out much better.

There are two advantages to this method. (1) If both shafts come out of one straight, clear 2 by 4 and are constantly compared as they are worked to shape and glued up, the oars will be naturally tuned. That means that both will have the same weight, balance, and spring. This counts for a lot in making rowing easy. (2) Once you've made a pair or two of these, you'll have the procedure down pat, you'll be able to make them quickly—6 or 8 hours—and be able to try out ideas as they come. Your oars are then free to evolve quickly into a configuration that will make rowing your boats easy and fun.

Finally, I am pleased with these new oars. In my Natoma skiff I designed a boat that performs very well, but like any other boat, her best performance comes only with really good oars. My carved spoons have taken me as long to make as my Natoma skiff. The new oars work at least as well as my best carved spoons, and, as they

continue to evolve, are becoming downright handsome. Perhaps most importantly, they are quick and inexpensive to build. I now have the comfort of knowing that all of the boats coming out of my shop will have not only a proper rudder but a decent pair of oars as well.

If you have any questions, comments or problems, please feel free to call or write.

Editor's note: *TSCA Council member John DeLapp has graced these ASH BREEZE pages before with his designs for Flyfisher and the Natoma skiff. John hopes that you will try his method of making oars, and he looks forward to hearing about your experiences with them at the next Small Craft Workshop at Mystic Seaport. Send me a postcard if you would like John to continue with an article about flex in oars and the shape of the grip. I know I would like him to continue since I used a pair of his oars at the last workshop and was very impressed with the comfortable grip he designed.*

Both John and I would also like to hear your ideas about oar making. Let's keep this subject active in The ASH BREEZE so we all can increase our knowledge. We might even end up with a pair of efficient and easy-pulling oars for our boats.