

For some purposes, sterile wooden applicator sticks are better than flamed metal loops for inoculating cultures. I will describe here one such purpose, and the procedure for using this technique.

A. Streaking Slants: For slants that have been properly made in the 16 X 125 screw-cap tubes, when you streak them with an inoculating loop of the type that we have in the lab, in order to get the loop down to the bottom of the slant, more than an inch of the handle of the loop also goes into the tube. If that lower part of the handle has not been sterilized, it can contaminate your slant. There are two appropriate solutions for that:

1. When you flame the loop, also flame the first inch or so of handle. Don't hold it in the flame any longer than you hold the loop and wire. Holding it there too long can heat up the whole handle and burn your fingers. Be careful to only hold the handle by its cool end. If you are using that loop only for inoculating sterile slants, and you take care not to touch the loop to the glass of the tube on the way in, you don't have to reflare the handle prior to inoculating a second slant, since the handle will not have touched anything that could contaminate it. It may be important to do it that way, since flaming the handle again and again in a short space of time could result in the far end of the handle becoming too hot to hold.

2. For my preferred procedure, I have placed in the lab some sterile wooden applicator sticks. They are on the shelf above the media bench, with a label saying "Sterile inoculating sticks". Since these sticks have been autoclaved, they do not have to be heated to sterilize them. If you handle those sticks only by their top end, the rest of the stick will be sterile, so the other end of the stick can be put all the way down to the bottom of the slant, without putting anything non-sterile into the tube. Just touch the end of the stick to the colony that you are inoculating from, and streak it onto the slant in the same way as you would with the inoculating loop. To get the sterile sticks out of the tube that they come in, take the cap off, hold the tube horizontally and shake it gently so the sticks slide so about 1/2 inch of the sticks are projecting out of the tube. That way, you can get ahold of one stick and pull it out, holding it only by its top end. If you will soon be using another stick, you can lay the tube down on the bench, **with its open end projecting off the edge of the bench, so the projecting sticks don't get contaminated by the bench.** Place the used sticks into one of the tubes labeled "Used inoculating sticks", which are in another rack on that same shelf. Replace the cap on the tube of

sterile sticks and put the tube back in the rack where you got it.

B. Inoculating sticks can also be used, for the same reason, for transferring an inoculum from one liquid culture to another.