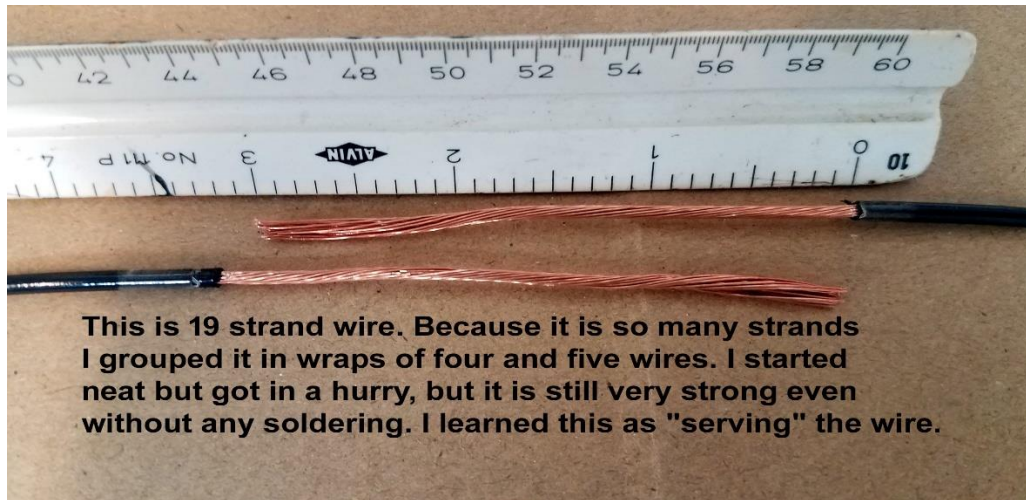


Stranded Wire Splicing by Serving Method

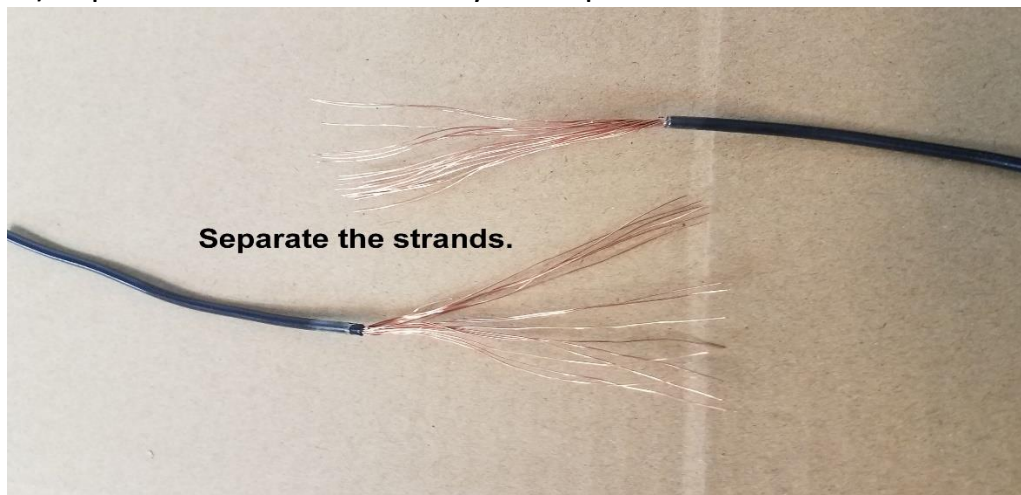
By W8JI

“Serving” strands is a strong and reliable way to splice wires. Properly done, the splice will be near the strength of the wire itself without any additional connection methods like clamping or soldering. Of course, for long term use outdoors we should solder.

1.) Without damaging the strands, remove enough insulation to have a good amount of overlay. Thirty wire diameters of stripping is typically enough. In this case the wire is 12AWG 19-strand copper.



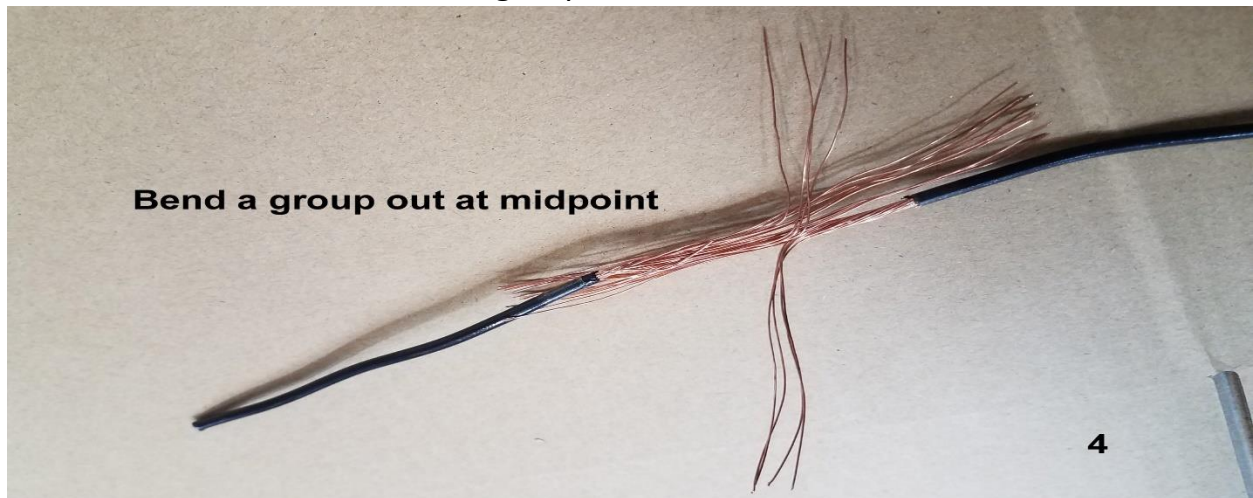
2.) Separate the strands and lay them parallel



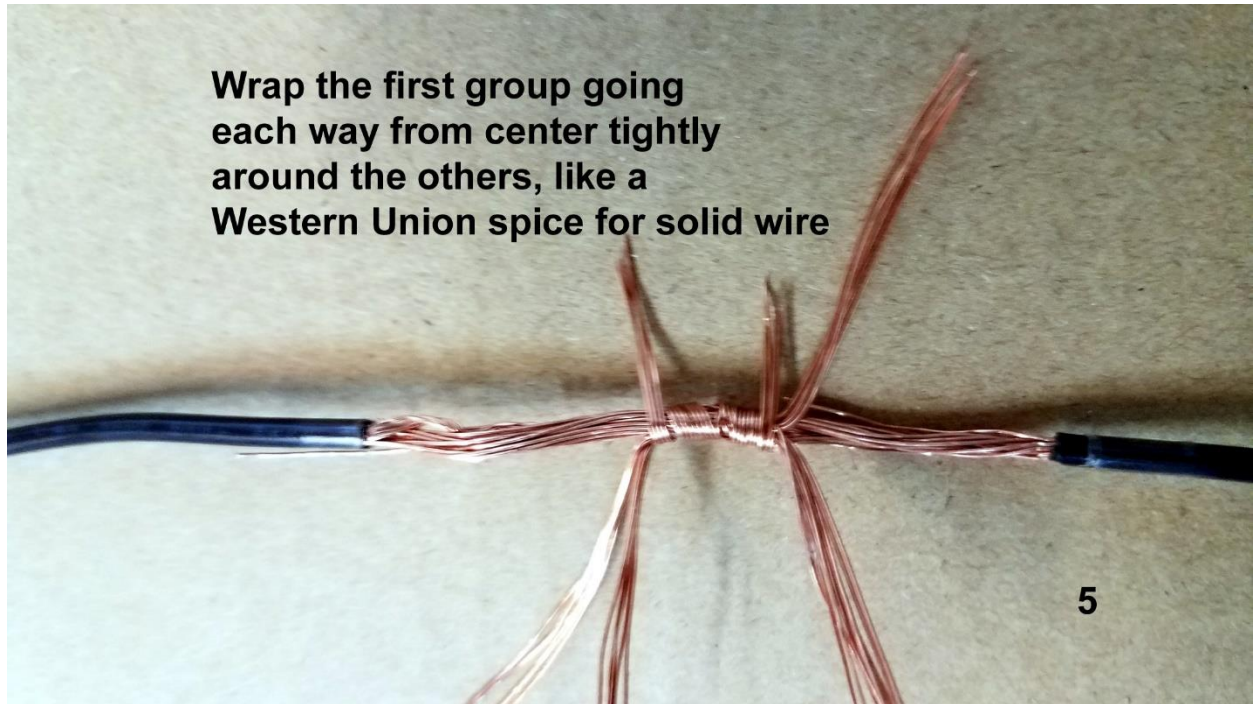
3.) Pick a number of strands that won't be too tedious, loosely group them, and overlap evenly



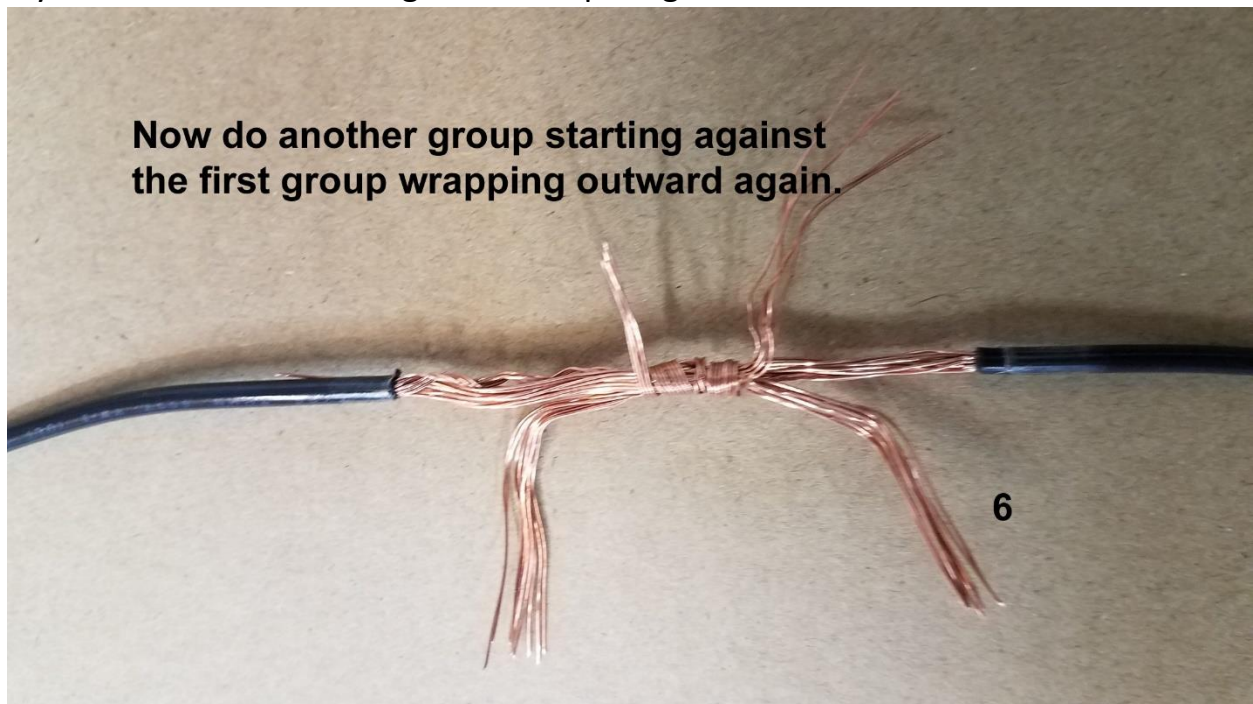
4.) At the center of overlap, carefully prepare to do a Western Union style splice. In this case I did about five wire groups since the wire had nineteen strands.



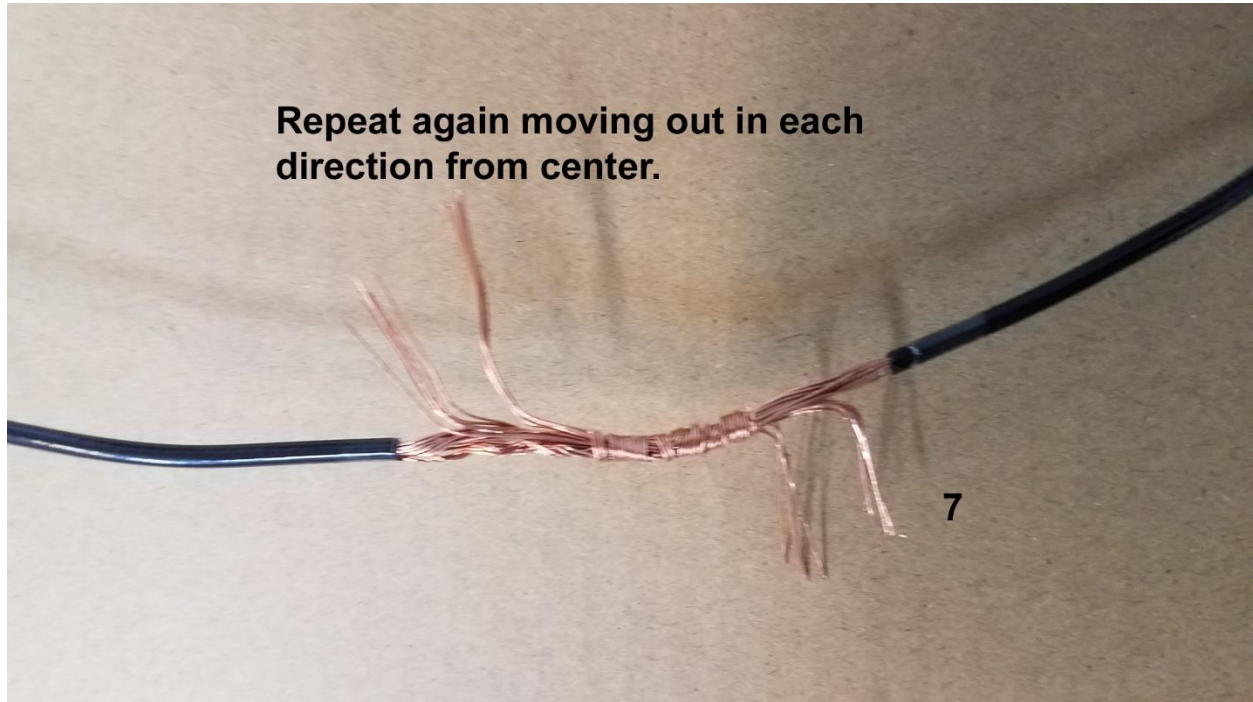
5.) Wrap the first groups tightly over all the other ungrouped wires, making a Western Union style wrap. Wrap until the ends are completely reached.



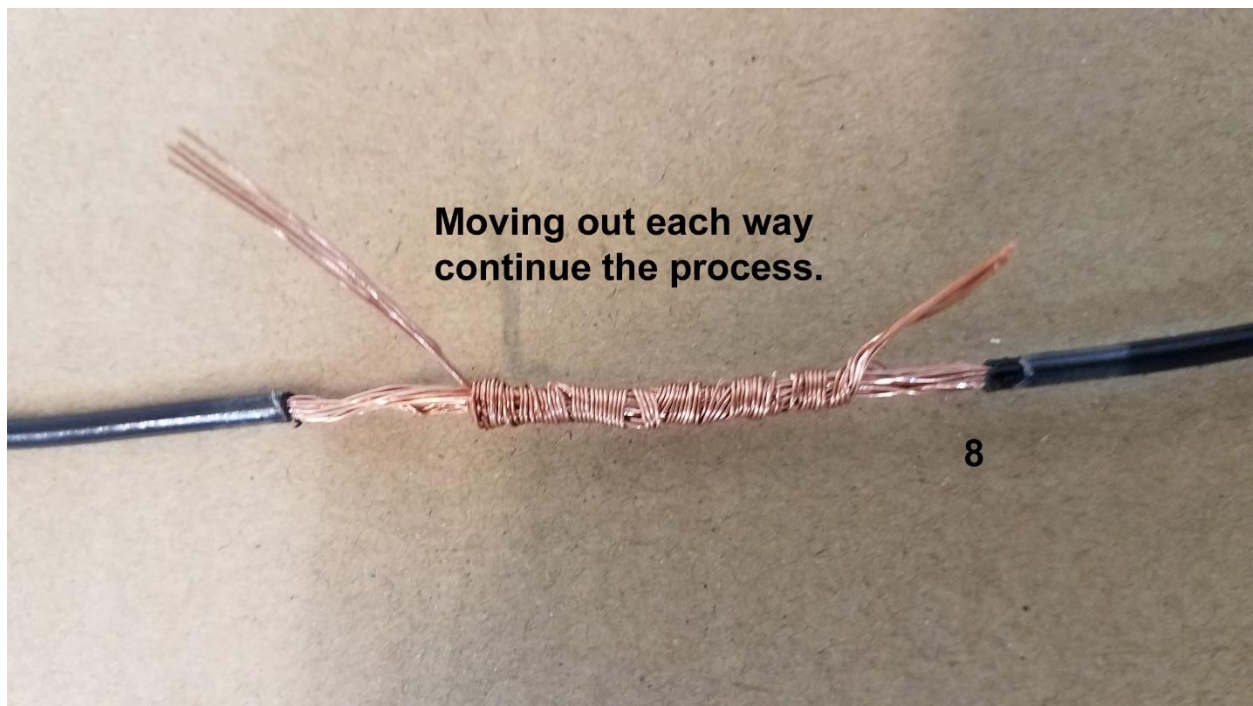
6.) Now start a second group and finish the same way, wrapping Western Union style over all the remaining wires. Keep it tight!



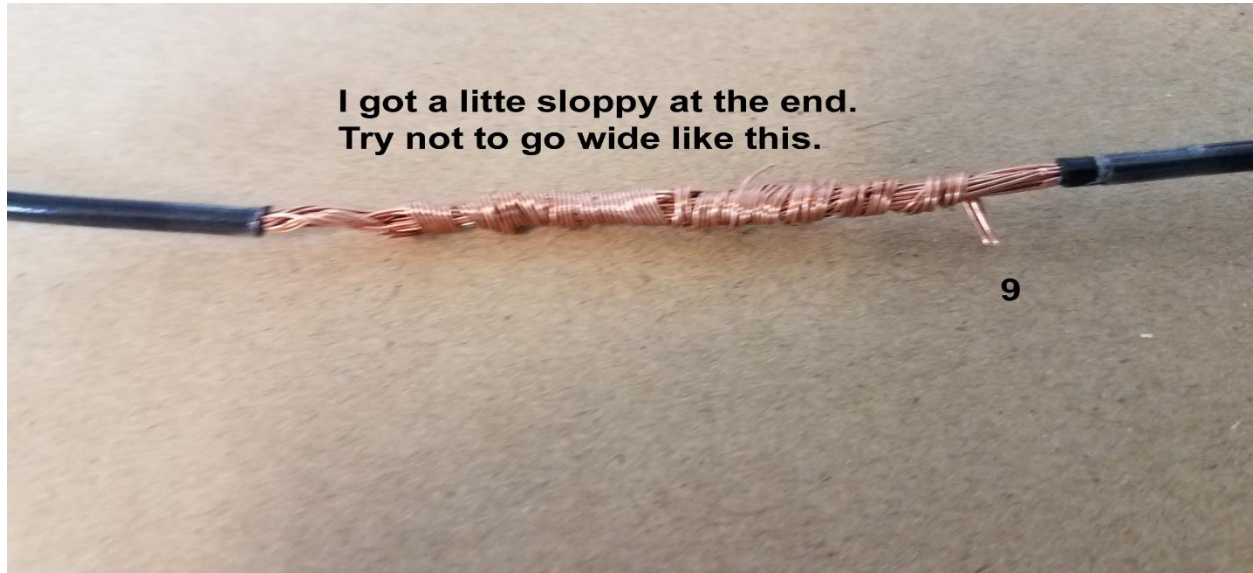
7.) Repeat this process over and over while working outward one group at a time



8.) This process repeats over and over until you reach the last group or strand and should look like this



9.) I got a little sloppy-wide at the end, but this is still okay. It just could be neater



10.) I wound up with this. It would have been better if the gaps were smaller



11.) I can pull with all my strength against a bench vice and the splice, even though not soldered, does not yield. It actually is a fairly good electrical connection. Of course, it is better soldered if the wire is not overheated and the solder is still flowed

