BRUSH CONTROL on county roads can be a major challenge. Low hanging branches can interfere with motor grader and truck operations and act as a snow trap during the winter.

Two Marion County Road Department employees, mechanic Mark Fee and assistant foreman Timothy Van Roekel, designed and built a “limb lopper” to address this problem.

The limb lopper works like giant pruning shears. It is mounted on the boom of an XL4100 Gradall. The Gradall will reach 22 feet high and 25 feet out, providing plenty of mobility to prune trees hanging over the traveled portion of a roadway.

The limb lopper was built in the Marion County Road Department’s mechanic and maintenance shop. While deciding where and how to mount the limb lopper, Fee and Van Roekel considered two things: the best vantage point for the operator to see the cutting edge and using the full mobility of the machine.

Once they decided where and how to mount the pieces, they made cardboard patterns and held them on with clamps to check the operator’s view and the machine’s mobility. After finetuning the patterns, they traced them on flat steel and cut them out with a torch and plasma cutter. After cutting the pieces and forming the cutting edge, they hard-surfaced it to hold a sharper edge longer. Future plans include adding a replaceable cutting edge.

The limb lopper trims branches up to about five inches in diameter depending on the kind of tree, whether it’s alive or dead, and the time of year. The cutting angle can also make a big difference because the operator can’t always cut at a 90 degree angle.

For more information about the limb lopper, contact Mark Fee or Timothy Van Roekel, 641-828-2225. •

Editor’s note: The “limb lopper” is one of several winning innovations from the “Better Mousetraps” competition at the Iowa Maintenance Expo in September 2001. In each issue of Technology News we’re highlighting one of the winners. For information about other winning “mousetraps,” see CTRE’s website: www.ctre.iastate.edu (see “CTRE News”).