

CONVERTING LONGNOSE PLIERS FOR BANDING PURPOSES

By Christopher N. Rose

One of the considerable challenges facing the cooperating bander is the development of traps and other banding equipment. With the tools available in a basic home workshop, a pair of longnose pliers can be converted for more efficient banding use. The basic operation should proceed as follows:

1. Remove the temper from the jaws of the pliers by heating to a bright cherry red. Hold at this temperature for about four minutes and then let the pliers cool gradually to room temperature.
2. With a hacksaw remove the tips of the pliers.
3. Clamp the jaws together with a "C" clamp (or in a drill press vise).
4. Since the jaws of the pliers taper to a point it will be necessary to file or grind one surface flat to permit center punching and drilling. Be sure to leave at least $9/16$ " of the surface forward of the jaw hinge free to permit installation of the band opener.
5. Drill a $9/64$ " (straight shank twist drill) hole for the size 0 and 1 bands, and a $3/16$ " hole for the 1A and 1B bands. In the event you encounter difficulty drilling, re-heat the jaws again and cool slowly to remove additional temper.
6. Clean up the basic operation by filing the nose smooth on each jaw. Remove the burr from around the "band closing holes" with a fine file and emery cloth. You can stop work at this point and you have a light comfortable tool to operate with -- or continue the challenge by installing a band opener.

7. The opener should be fabricated from $5/16$ " steel rod. Speaking for my many colleagues, I'm sure the metal shop instructors at your local high school will be glad to "turn a tip" on the metal lathe at one end of the rod. See the accompanying drawing for specifications. In this case, it may be used for opening bands from size 0 to 1B.

8. At this point drill a $9/32$ " hole (see Step 4 above). Now slide the tip through the $9/32$ " hole in the jaws of the plier so the shoulder stops flush with the top of the pliers. Mark and cut off the surplus rod with a hacksaw.

9. Clamp the handles of the pliers together firmly to secure the "band opener" in its socket. Locate and center punch for a $3/32$ " hole

which will permit tapping threads and the installation of $1/8$ " machine screws which will hold each section of the band opener securely in each jaw. A piece taken from a corset steel or an old fashioned hair barrette, $3/4$ " long and drilled to permit the installation of a $1/8$ " machine screw, will serve as a spring to close the hold of the bands in the jaws during the banding operation.

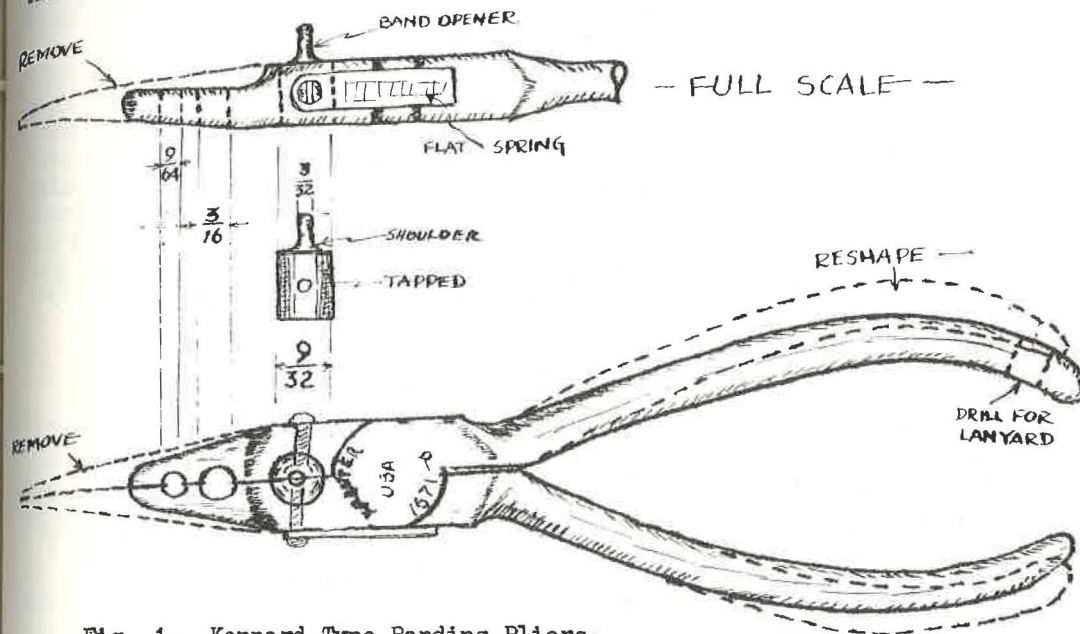


Fig. 1. Kennard Type Banding Pliers
Converted from Longnose Pliers

10. Next obtain the loan of a jewelers saw, and use this for slitting the steel tip into two sections which will form the band opener.

11. Remove any burrs from the sawing operation with a fine file and emery cloth, reshape the tips of the opener if necessary to guarantee an evenly opened band.

12. To facilitate work in the field, drill a hole in the tip of one of the handles and attach pliers to a large fishing swivel attached to a mason twine lanyard.

At present, I am considering the construction of a double band opener (2 tips) which will handle a size 0-1A on one side and 1B to 2 on the other side.