

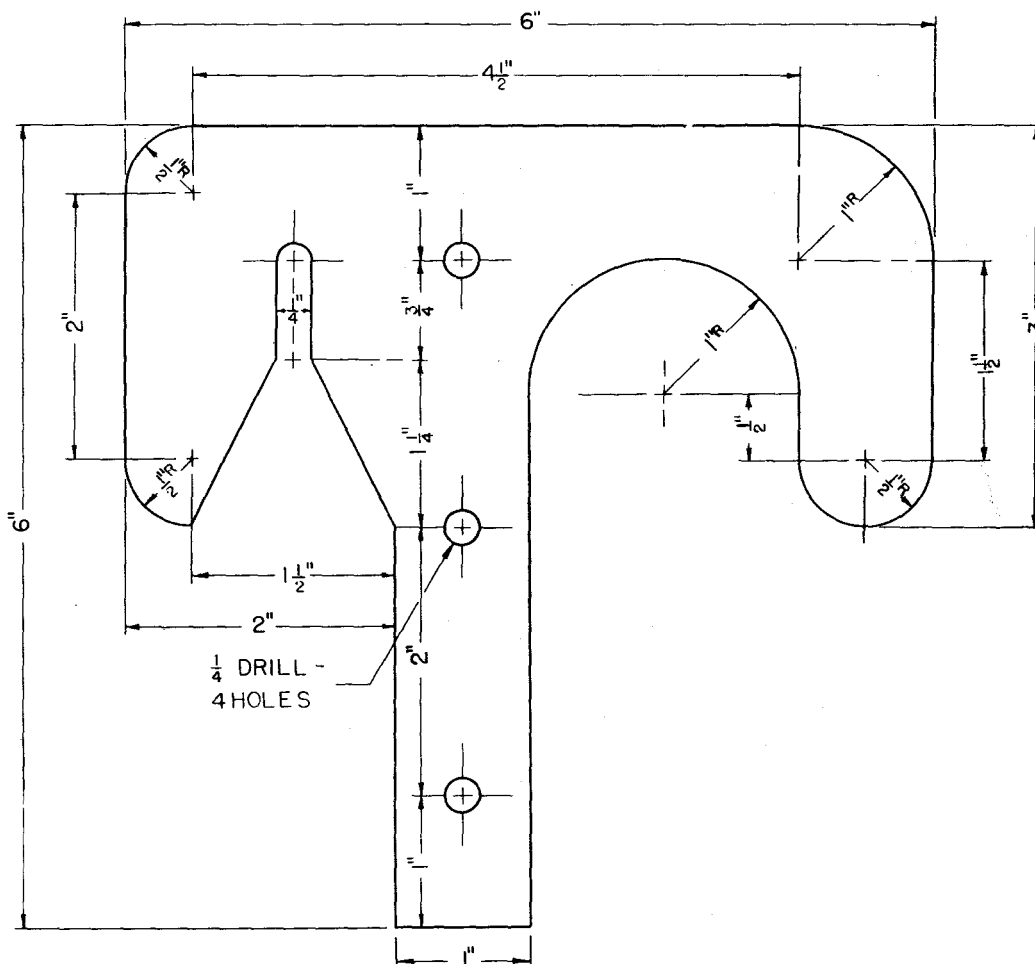
A COLLECTING HOOK FOR YELLOW-POPLAR FRUIT John W. Andresen

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Prior to the development of the tool, pictured below, for collecting yellowpoplar (Liriodendron tulipifera L.) fruits, a variety of other hooks, saws, and loopers were used. However, our experience was that the fruit which projected at odd angles or was partially shielded by branches was uncollectible with such tools. This might amount to as much 10% of the crop. We therefore devised the hook described herein.

It is easily made from a blank of 2024-T4 aluminum plate, 1/4" by 6" by 6". The approximate cost of this plate on an individual basis is \$2.00 but if a large number of hooks were to be made, a blank 6" wide by the desired length could be used. An economic method in which to utilize the stock would be to invert every other pattern and insert one branch hook under the other - thus three hooks can be made from a 6" x 13" blank.

A working drawing of the hook follows.



The manufacture of the tool is accomplished as follows:

1. the pattern can either be scribed on the stock with a scratch-awl or a paper pattern can be cut out and glued on the blank;
2. the three bolt holes and the rounded end of the 1/4" notch should be drilled (after center punching) using a 1/4" high speed drill with cutting oil;
3. the hooks and shaft shank are cutout using a jeweler's saw, a small band saw or a hack saw;
4. the outside edges of the branch hook and "funnel-notch" should be chamfered and rounded to prevent the otherwise sharp edges from bruising and cutting the branches;
5. for the sake of appearance, the entire tool might be burnished with fine emery cloth.

The pilot model required 3 hours to make, but this time can be halved with experience.

The funnel-shaped opening guides the fruit peduncle into the 1/4" notch which engages it and breaks off the fruit. The edges of this slot need not be sharpened because the fruit stalk need not be cut, it is very brittle where it joins the twig and breaks off easily.

This hook is easily bolted to the side or inserted into a slot cut in the center of any wooden or metal pole.

The hook may also be used in collecting other large headed, thin stalked fruit, such as sycamore, magnolia or sweetgum. An adaptation of the hook which might render it useful in the collection of pine cones would be to bevel and sharpen the "funnel" and slot edges to permit the cutting of the cone stalks.

The advantages of this yellow-poplar hook are: 1) it is inexpensively and easily made using common hand tools; 2) it is ideal for collecting yellow-poplar fruit because the "funnel-notch" assures the release of one or more fruit each time a peduncle is engaged; 3) it is light in weight and can be readily mounted on a variety of handles; and 4) it will not rust.