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VITA TECHNICAL BULLETIN 51035-BK

### CENTRIFUGAL HONEY EXTRACTOR

This Bulletin explains how to build a wooden honey extractor. Honey hives are placed in two containers. These are spun with a pulley mechanism. Thus, the honey is extracted by centrifugal force.

This extractor was developed by VITA affiliates in Nicaragua. It has since then been built and used successfully in several other countries.

VITA makes this material available to generate ideas among as wide an audience as possible. Readers should write VITA about their experience with the design. Please send test results, suggestions, and requests for further information to:

Technical Bulletins

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Revised August 1981

ISBN 0-86619-114-3

## VOLUNTEERS IN TECHNICAL ASSISTANCE

## VITA TECHNICAL BULLETINS

This Technical Bulletin is one of a series of publications that offer do-it-yourself technology information on a wide variety of subjects.

Technical Bulletins are idea generators, intended not so much to provide a definitive answer as to guide the user's thinking and planning. Premises are sound and testing results are provided, if available.

Users of the information are asked to send us their evaluations and comments based on their experiences. Results are incorporated into subsequent editions, thus providing additional guidelines for adaptation and use in a greater variety of conditions.

## CENTRIFUGAL HONEY EXTRACTOR

VITA volunteers in Nicaragua have built a simple, wooden,

honey extractor. These are two wooden arms that hang down from a horizontal brace. A box is attached to the end of each arm. Each box holds honey hives.

The horizontal brace is attached to a vertical pole. There is a wooden pulley around the bottom of this pole. A rope around the pulley spins the pole. This motion also spins the horizontal brace, wooden arms, and honey boxes. Centrifugal force makes the two boxes rise and move outward. This forces the honey to the bottom of the boxes, from where it is later scooped out.

<FIGURE 1>

47p01.gif (600x600)



**This is a view of an extractor in stationary position.**

**<FIGURE 2>**

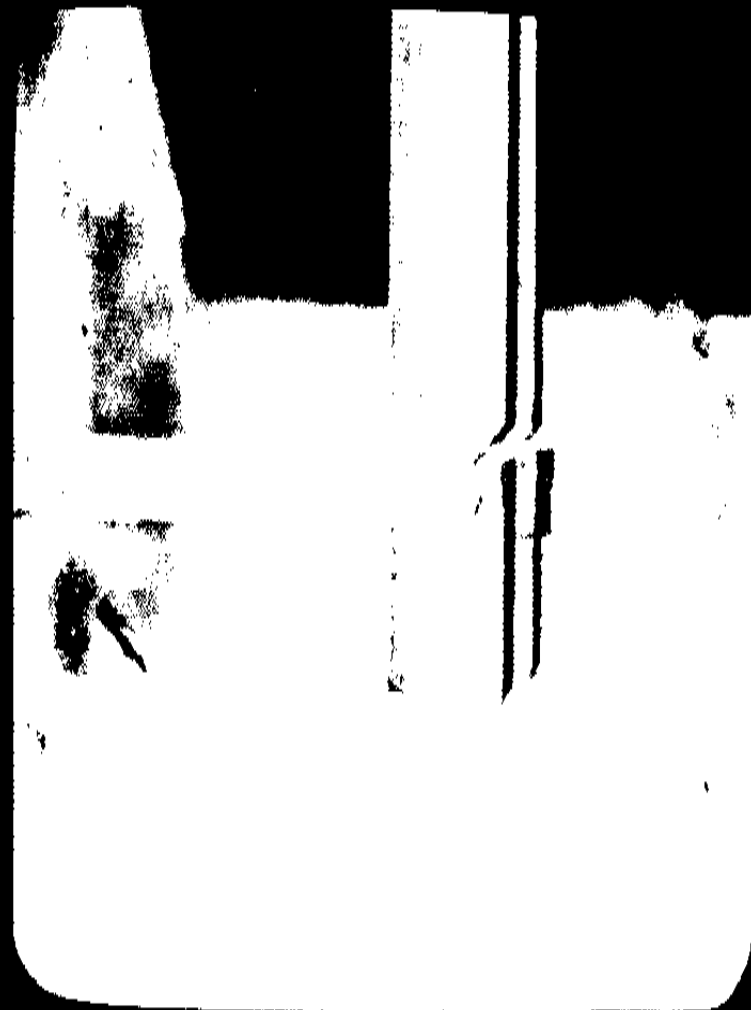
**47p02a.gif (600x600)**



View of the revolving extractor while in operation.

**<FIGURE 3>**

**47p02b.gif (600x600)**



The simple joints for the horizontal crosspiece and the wooden arm.

The simple joints for the horizontal crosspiece and the wooden arm.



<FIGURE 4>

47p03a.gif (600x600)



The rope is attached to a piece of rubber inner tube that is tied to a wooden stake. This creates the necessary tension.

<FIGURE 5>

47p03b.gif (600x600)



The rope is then wrapped around a wooden pulley. This pulley design comes from VITA's Village Technology Handbook.

<FIGURE 6>

47p04a.gif (600x600)



Pull the rope a short distance and then let it recoil. The extractor will revolve in one direction.

<FIGURE 7>

47p04b.gif (600x600)

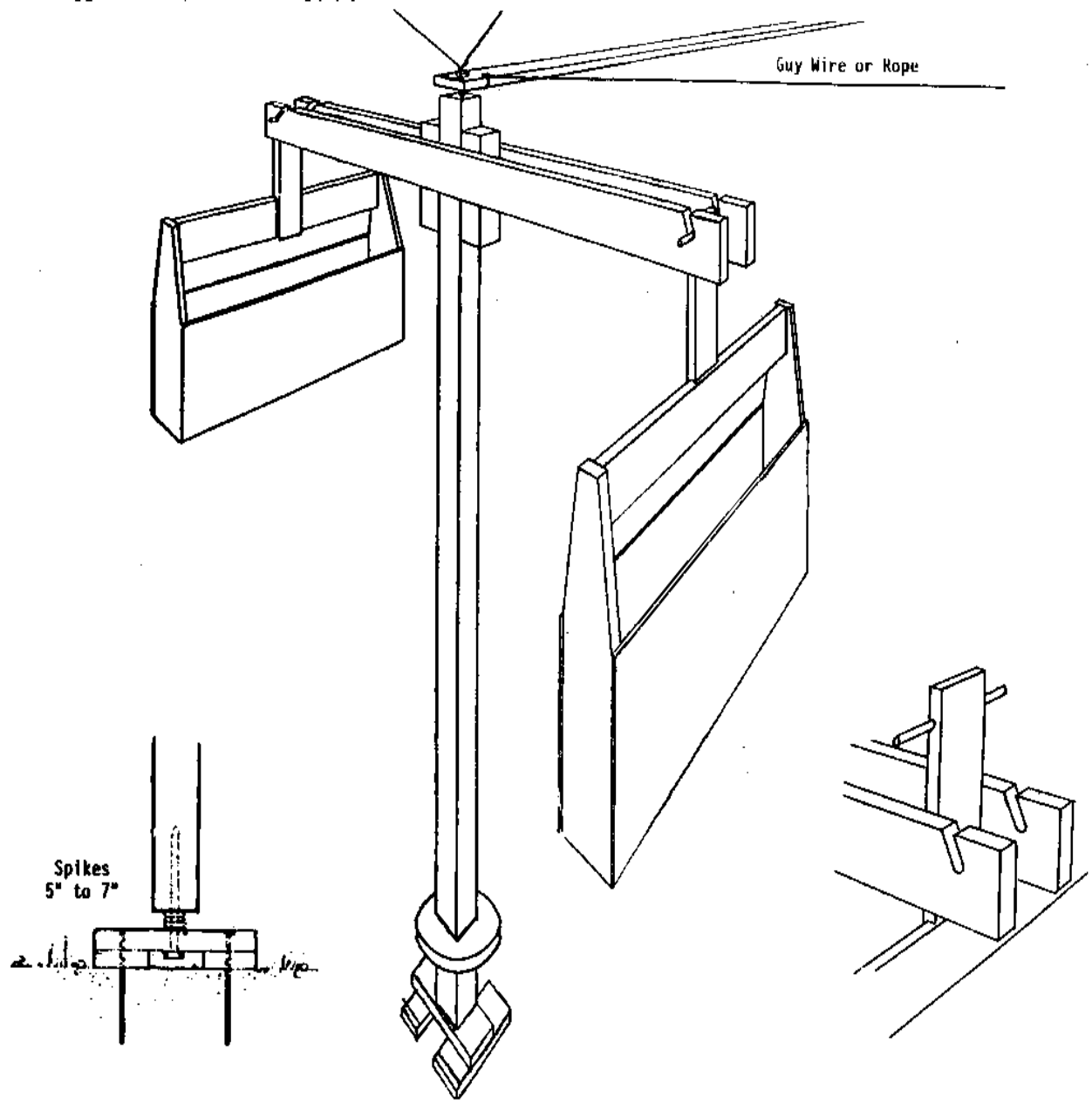


Lift the lids from the two honey boxes.

<FIGURE 8>

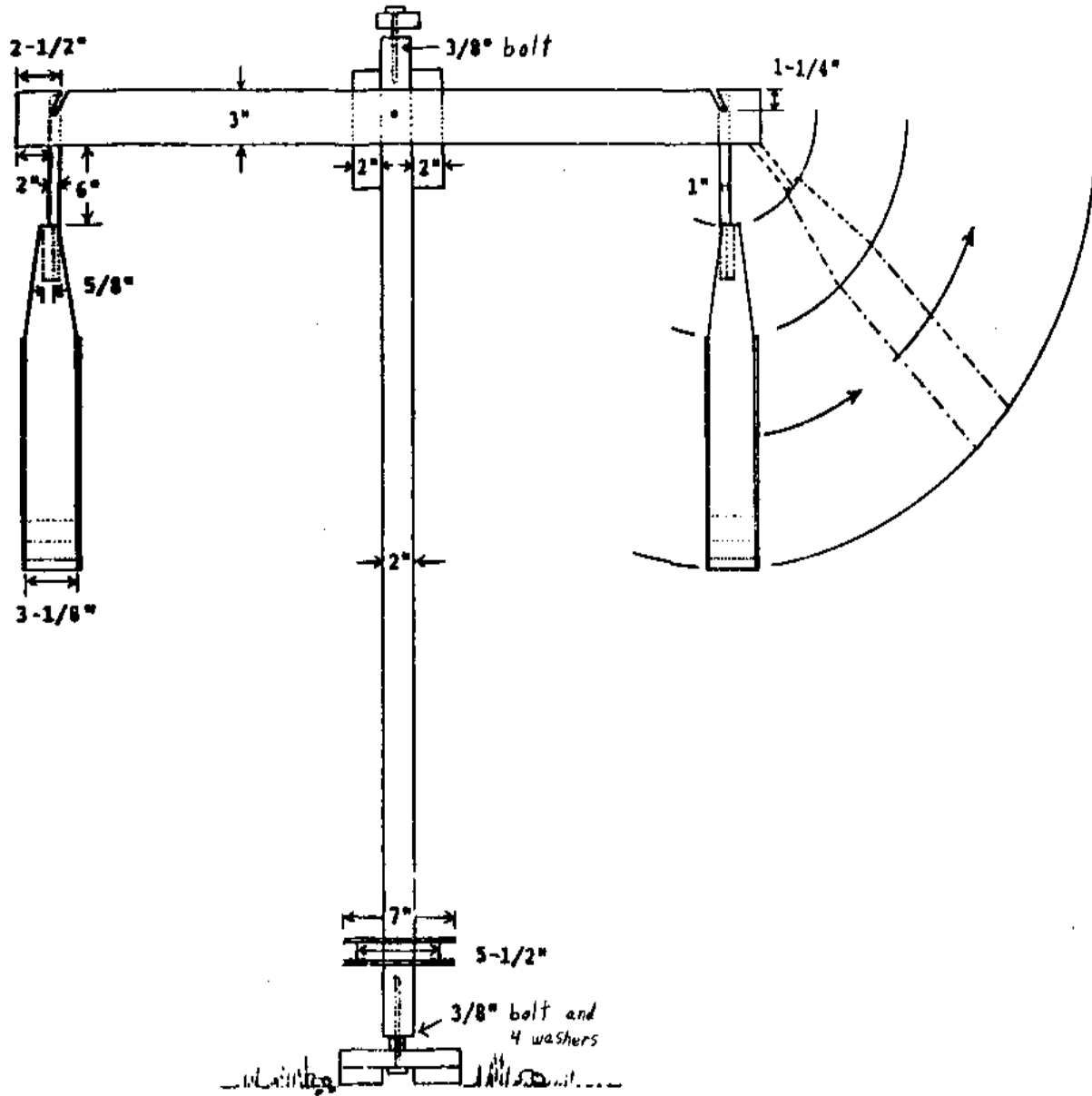


**47p05a.gif (600x600)**



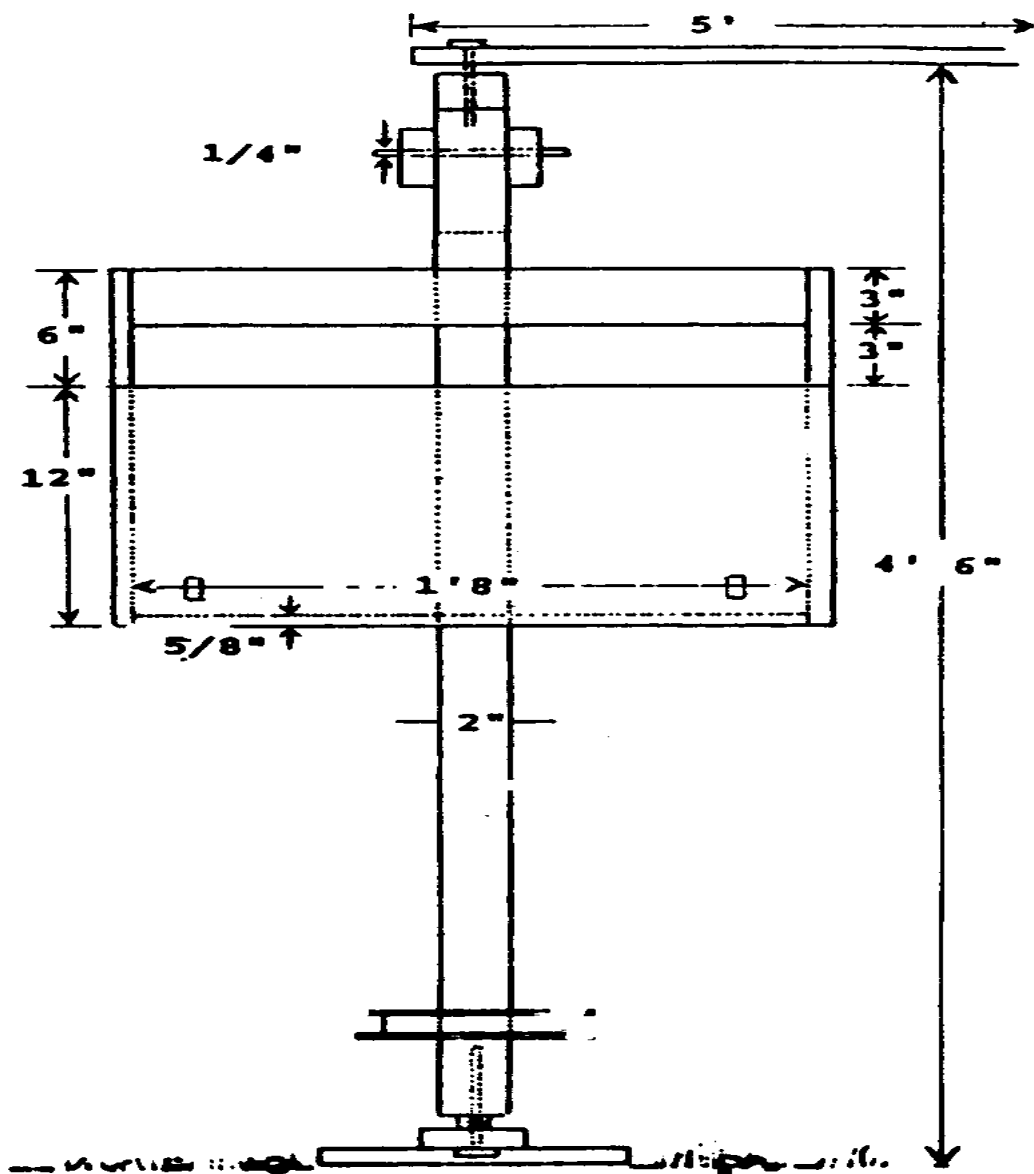
<FIGURE 9>

47p06a.gif (600x600)



<FIGURE 10>

47p07.gif (600x600)



**POINTS TO REMEMBER**

1. The top portion of the extractor must be very secure to prevent swaying. Attach guy wires, as shown in the diagram. Also brace the vertical piece with a board attached to a shed or a tree, as shown.

2. Attach the rope to a piece of tire inner tube. Tie the tube piece securely to a wooden spike that has been driven deep into the ground. This arrangement makes the rope spring back during operation.

3. The photos show some modifications that differ from the drawing. The "arms" attached to the horizontal crosspiece are longer than shown in the drawing. You should experiment with varying lengths to see which works best.

4. Sudden stops as the rotation slows will cause the boxes to jerk and slam into the vertical pole. Place rubber mountings around the main pole at points where the boxes may touch the pole.

VITA also publishes A Beekeeping Guide, by VITA Volunteer Harlan H.D. Attfield, which includes the following information:

- \* The Bee Colony
- \* What Bees Need to Live
- \* Beehives
  
- \* The Langstroth Hive
- \* The Newton Hive

**\* Simple Hives**

- \* Some Simple Equipment Needed for Beekeeping**
- \* How to Move Bees into New Hives**
- \* Inspecting the Colony**
- \* Helping A Colony Make More Honey**
- \* What to do Before the Honeyflow**
- \* What to do During the Honeyflow**
- \* Harvesting the Crops (Honey and Beeswax)**
- \* Appendix: Species and Varieties of Bees**

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