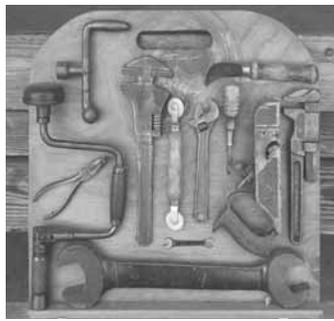


Sturdy plywood panels provide a perfect way to display Tom Korn's hand tool collection. Slot at top makes panels easy to carry.



Narrow shelves secured with brass screws support the tools, along with thin wire slipped over tools through holes in plywood and twisted tight on back.

Nifty Way To Display Tool Collection

Tom Korn says his sturdy plywood panels provide a perfect way to display his hand tool collection. And fellow residents of Ojai, Calif., enjoy seeing them in the windows of a local hardware store.

The collection got its start more than 40 years ago.

"My grandfather gave me a few tools in the late 60's," he recalls. In the mid 1980's, he started buying inexpensive tools at garage sales and flea markets. He became such a familiar face at the Ventura flea market that vendors called him "Mr. Screwdriver" and "Mr. Monkey Wrench".

Several years ago, he decided the tools weren't doing anyone any good sitting in boxes in his garage, so he started making 20 by 20-in. panels out of 1/2-in. plywood. Narrow shelves secured with brass screws on the bottom support the tools along with

thin wire slipped over the tools through holes in the plywood, and twisted tight on the back. With artistic layouts of similar tools, a rounded top and nice stain, the displays are attractive and portable with a handy slot at the top to carry them.

Korn has 26 panels in all. The heaviest is 31 lbs. and holds monkey wrenches. The largest tool is an oilfield wrench. A few panels display smaller items such as square nails, lock washers, railroad spikes, electric wire fasteners and porcelain knobs and handles.

He occasionally hangs out at the hardware store and enjoys talking to people about some of the tools. Korn is pleased that he can share his collection with young people.

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Inventive Tools Make Work Easier In Developing Countries

By Dee Goerge, Contributing Editor

In North America we take electric food processing machines that peel, slice and dice for granted. In developing countries, where there may be no electricity, harvesting and processing crops is tedious and laborious. A volunteer organization of retired engineers, scientists, farmers and other professionals have been making those tasks easier since 1981.

"Our purpose is to create practical food and water tools - to provide simple technology," says Roger Salway, executive director of the non-profit Compatible Technology International (CTI) based in St. Paul, Minn. "Groups come to us with a problem, and we come up with a solution."

Volunteers first came together to work on a potato storage problem in India. Missionaries were concerned because growers had no way to store their crop, and prices were so low at harvest that some farmers were committing suicide because they couldn't cover the cost of seed for the next year.

Volunteer engineers collaborated and came up with a simple passive cooling system. A ventilated storage structure is built over a pool of water, which evaporates and cools the air about 20 degrees lower than air temperature. The longer shelf life gives the producer time to process the potatoes with a hand-powered peeler and slicer that CTI volunteers also developed. Chips and potato cakes increased incomes by 300 percent.

FARM SHOW readers will appreciate the simple design of the many devices CTI designers have made out of basic materials. Design simplicity makes it possible for people in developing worlds to build the equipment themselves.

In Nicaragua, bad water from gravity supply systems was an issue. Engineers created a water chlorinator out of pvc pipe that delivers a controlled dosage of chlorine tablets.

"We provided the technology and training,

and they make the devices themselves," Salway says. Chlorinators have provided safe drinking water for about 90,000 people so far.

"Our grain grinder is another real workhorse," he says, noting that the grinders are made of cast aluminum or heat-treated steel. Burr mills have durable, heat-treated burrs that don't flake off metal and contaminate food. CTI currently has three models designed to grind nuts, grains, dried breadfruit, seeds, coffee, dried fish and a variety of other crops.

Engineers are close to finishing a grain processor that threshes and winnows grain for women in Africa who do it all by hand. The device has been tested on pearl millet and sorghum. They capture 90 percent of the harvest; a big improvement over traditional methods where up to 50 percent of the crop can be lost.

Other works in progress include a breadfruit processing system to shred, dry and grind it into flour; a peanut and ground nut stripper and sheller so Malawi and Tanzanian women don't have to do it by hand; a pepper mill that grinds fresh peppers grown in Ethiopia into flakes, seeds and powders; a device that turns waste rice hulls in Bangladesh into fuel sticks; and rice hulling burrs for grinders for farmers in Africa and Asia.

Though based in St. Paul, Salway points out that volunteers live all over the U.S., and they collaborate with students at universities including Stanford, Michigan Technological University, University of St. Thomas and the University of Minnesota. Volunteers come from many different backgrounds.

CTI's biggest challenge is attracting funding for research and development, which involves travel to countries to determine needs and to see what resources are available to make devices that are compatible with the culture. With more than 100 unpaid volunteers, 88 percent of the budget goes directly to programs. Donors include



In Nicaragua, engineers created a water chlorinator out of pvc pipe that delivers a controlled dosage of chlorine tablets.



Engineers also designed grain processors that thresh and winnow grain for farmers in Africa, who otherwise do all the work by hand.



foundations, corporations, civic and faith-based organizations, but individuals are the dominant supporters, Salway says.

For groups interested in the devices for emerging countries, the CTI website includes a device request form. CTI staff ask questions to find the best tool for each need. Equipment is not given away, Salway says, as experience proves people take care of things they pay for. When possible, CTI helps set up manufacturing in countries where their equipment will be used.

"We're really open to anyone who wants to volunteer from anywhere," says Salway, who is retired from John Deere with senior management experience. "We're particularly open to farmers who could travel and bring knowledge to another country."

To donate or volunteer, contact: FARM SHOW Followup, Compatible Technology International, 800 Transfer Rd., Suite 6, Saint Paul, Minn. 55114 (ph 651 632-3912; www.compatibletechnology.org).